# Curriculum Vitae - Quirine M. Ketterings

NMSP

Professor, Nutrient Management in Agricultural Systems **Nutrient Management Spear Program** Department of Animal Science 323 Morrison Hall, Ithaca NY 14853 Phone: 607 255-3061; Fax: 607 255-9829 E-mail: <u>qmk2@cornell.edu</u>; Website: <u>http://nmsp.cals.cornell.edu/</u>



## • Areas of work (70% extension and 30% research):

- Whole-farm nutrient management for New York dairy operations.
- Use of organic (manure, compost, cover crop) nutrients for fertility management.
- Fertilizer guidelines for yield and quality of field crops in New York.
- Soil testing for soil fertility and environmental risk assessment.
- Indicators of environmental impact of nutrient management practices.
- International agriculture: soil fertility management.

#### • Education:

- Ph.D. (Environmental Sciences). Ohio State University (OSU). December 10, 1999.
- M.Sc. (Soil and Water, with Distinction). Wageningen University and Research Center, the Netherlands. October 23, 1992.
- Ingenieurs (B.Sc. in Tropical and Subtropical Agriculture) International Agricultural College Deventer (Currently: Internationale Hogeschool Larenstein), the Netherlands. January 26, 1990.

#### • **Professional experience:**

- Professor of Nutrient Management in Agricultural Systems. Cornell University, Department of Animal Science. January 2014 current.
- Associate Professor of Nutrient Management in Agricultural Systems. Cornell University, Department of Animal Science June 2008 – December 2013; Department of Crop and Soil Sciences. February 2006-May 2008.
- Assistant Professor of Nutrient Management in Agricultural Systems. Cornell University, Department of Crop and Soil Sciences. August 2000-January 2006.
- Consultant for the International Center for Research in Agroforestry. March-June 2000.
- Research Assistant in the Soil Science and Geology Department, Wageningen Agricultural University, the Netherlands. June-September 1993.
- Research Assistant in the Soil Ecology Laboratory/Sustainable Agriculture Program, Entomology Department at Ohio State University, USA, November 1992-April 1993.
- Co-manager of a 135 cow dairy herd in Ruschein, Switzerland. June-August 1990.
- Translator for the International Red Cross on mission overseas. January-May 1990.

## • Faculty advisor for CALS graduate fields:

- Soil and Crop Sciences.
- Horticulture.
- Animal Science.

#### • Teaching experience:

ANSC4120 (4.4/5.0 averaged over last 11 years with 268 students; 4.6/5.0 average over the last 5 years with 95 students; 4.9/5.0 averaged over the last 3 years with 55 students):

- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2019. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Sarah Lyons (TA). <u>28 students</u> (...../5.00).
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2018. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Sarah Lyons (TA). <u>29 students</u> (4.74/5.00).
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2017. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Sarah Lyons (TA). <u>26 students (4.74/5.00)</u>.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2016. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Sarah Lyons (TA). <u>20 students (4.85/5.00)</u>.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2015. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), and Katie Andrews (TA). <u>16 students</u>. 4.81/5.00.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2014. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), and Emmaline Long (TA). <u>19</u> students. 4.93/5.00.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2013. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), and Emmaline Long (TA). <u>16 students</u>. 4.73/5.00.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2012. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), and Keenan McRoberts (TA). <u>24</u> students. 3.80/5.00.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2011. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Patty Ristow (NMSP) and Keenan McRoberts (TA). <u>31 students</u>. 4.40/5.00.
- ANSC4120 (4 credits): Whole farm nutrient management. Spring 2010. Co-teaching staff: Mike van Amburgh, Karl Czymmek (Pro-Dairy), Patty Ristow (NMSP) and Anne Place (TA). <u>22 students</u>. Overall course score: 4.04/5.00.
- ANSC/CSS4120 (2 credits module 1): Whole farm nutrient management. Spring 2009. Co-teaching staff: Karl Czymmek (Pro-Dairy) and Patty Ristow (NMSP). <u>37 students</u>. Lead instructor for module 2: Mike van Amburgh, Animal Science. Overall course score: 4.63/5.00.
- ANSC/CSS 412 (2 credits module 1): Whole farm nutrient management. Spring 2008. Co-teaching staff: Karl Czymmek (Pro-Dairy), Patty Ristow and Alejandra Latorre (TA). <u>24 students</u>. Lead instructor for module 2: Mike van Amburgh, Animal Science. Overall course score: 4.35/5.00.
- ANSC/CSS 412 (2 credits module 1): Whole farm nutrient management. Spring 2007. Co-teaching staff: Karl Czymmek (Pro-Dairy), Joe Lawrence (TA). <u>31 students</u>. Lead instructor for module 2: Mike van Amburgh, Animal Science. Overall course score: 3.84/5.00.

- ANSC/CSS 412 (2 credits module 1): Whole farm nutrient management. Spring 2006. Co-teaching staff: Karl Czymmek (Pro-Dairy), Joe Lawrence (TA). <u>28 students</u>. Lead instructor for module 2: Mike van Amburgh, Animal Science. Overall course score: 4.16/5.00.
- AS/CSS 412 (2 credits module 1): Whole farm nutrient management (prior to Spring 2003 called AS 412: Livestock and the Environment). Cornell University. Spring 2001-2005. Co-teaching staff: Greg Albrecht (Nutrient Management Spear Program, CSS, lead lecturer) and Karl Czymmek (Pro-Dairy). Lead instructor for module 2: Danny Fox, Animal Science.

IARD 6940 (sub 4180) co-instructor:

• SMART program Malawi (3 credits): Assignment by Catholic Relief Services (CRS). Guided three Cornell students on a 2-week assignment in Malawi in January of 2011 followed by independent study in the first half of the spring semester 2011.

Teaching experience prior to Cornell:

- Biology Teaching Assistant (Bio101: introductory biology for non-science majors) at the Ohio State University. Winter Quarter, 1999, Spring and Fall Quarters, 1998, and three quarters in 1994-1995.
- Biology Teaching Assistant (Bio114: introductory biology for science majors) at the Ohio State University. Winter Quarter 1997.
- Agriculture/English teacher at Diyagala Boys Town, Ragama, Sri Lanka. January-December 1988.

## • Visiting Scholars:

- Carlos Ortiz Gama
  - Departament d'Agricultura, Ramaderia, Pesca i Alimentació, Spain
  - 1-month scientific visit (September 7-September 30, 2016)
- Angel Maresma, PhD Student
  - Agronomy, Lleida University, Spain
  - 4 month internship (January 30-May 25, 2015)
  - <u>nmsp.cals.cornell.edu/publications/impactstatements/AngelMaresma.pdf</u>
- Dr. Yunchen Zhao, Professor
  - Hexi University, School of Agriculture & Biochemistry, Zhangye, Gansu Province, PR China
  - 12 month sabbatical leave (May 1, 2013-April 30, 2014)
- Dr. Hayriye Ibrikci, Professor
  - Soil Science and Plant Nutrition Department, Cukurova University, Turkey.
  - 2 month sabbatical leave (July 1-Sept 1, 2012).
  - <u>nmsp.cals.cornell.edu/publications/impactstatements/HayriyeIbrik%C3%A7i.pdf</u>
- Cansheng Yuan, Senior Agronomist
  - Nanjing Management Station of Soil and Fertilization, Nanjing Bureau of Agriculture and Forestry, China.
  - 6 months sabbatical leave (December 4, 2007-May 28, 2008).
- Dr. Metin Turan, Associate Professor
  - Soil Science Department, Atatürk Üniversity, Erzurum, Turkey.

- Currently with Yeditepe University, Faculty of Engineering and Architecture, Department of Genetics and Bioengineering, İstanbul
- 3 month sabbatical leave (September 26-December 26, 2006).
- Dr. Song Chunyu, Associate Professor
  - Northeast Institute of Geography and Agricultural Ecology, Harbin, Heilongjiang, P.R. China and Chinese Academy of Science.
  - 6 month sabbatical leave (March 25-September 25, 2005).

#### • Postdoctoral Researchers / Research Associates

- Current Research Associate:
  - Dr. Sanjay Gami
    - NMSP laboratory manager
    - Land application of acid whey
    - April 2011- current
  - Dr. Tulsi Kharel
    - On-farm research statistical and spatial analyses
    - February 2019 current
- Current Postdoctoral Researchers:
  - Dr. Tulsi Kharel
    - On-farm research statistical and spatial analyses
    - February 2017- February 2019
  - Dr. Angel Maresma
    - On-farm research and precision agriculture
    - April 2017-April 2019
  - Dr. Mart Ros
    - P index and whole farm mass balances
    - o May 2017-May 2019
- Past Postdoctoral Researchers:
  - Dr. Tulsi Kharel
    - On-farm research statistical and spatial analyses
    - February 2017 February 2019
    - Currently Research Associate with NMSP (started in February 2019)
  - Dr. Stephen Crittenden
    - P index evaluation and whole farm mass balances
    - o July 2015-July 2017
    - Research Scientist (Soil Nutrient Management), Science and Technology Branch, Brandon Research and Development Centre, Agriculture and Agri-Food Canada, Manitoba, Canada
  - Dr. Sebastian Cela
    - P index evaluation and whole farm mass balances
    - o July 2013 –July 2016
    - Currently Agronomist in farmer cooperation, Spain
  - Dr. Amir Sadeghpour
    - Manure management and air emissions

- February 2014 January 2016
- Currently Assistant Professor of Soil Management & Integrated Cropping Systems, Department of Plant, Soil and Agricultural Systems, Southern Illinois University
- Dr. Aristotelis Tagarakis
  - Crop sensors for corn
  - July 2014 December 2016
  - Currently Senior Researcher, BioSense Institute, University of Novi Sad, Servia
- Dr. Melanie Soberon
  - Whole farm mass balances
  - March 2012 March 2016
  - Currently Instructor summer course in Animal Science and independent consultant
- Dr. Pilar Berenguer
  - Tool for nitrogen management of Cornell University.
  - September 2013 July 2015
  - Currently Teacher in highschool, Spain
- Dr. Kulbhushan Grover
  - Spatial variability of the Illinois Soil Nitrogen Test
  - December 2008-March 2009
  - Currently Associate Professor, Sustainable Crop Production, New Mexico State University
- Dr. Sanjay Gami
  - Sulfur management of alfalfa and nitrogen management of corn
  - December 2008-April 2011
  - Currently Research Associate with NMSP (started in 2011)

## • Student advising at Cornell (starting date)

- Current graduate students:
  - 1. Michael Rosato (Spring 2018) <u>minor advisor</u>
    - M.Sc. Horticulture ('20)
    - Sulfur for vegetable crops
  - 2. Sarah Lyons (Fall 2015) <u>major advisor</u>
    - Ph.D. Animal Science ('19)
    - Double cropping for forage production, quality, and environmental management
  - 3. Nancy Glazier (Fall 2011) minor advisor
    - M.Sc. Animal Science ('18)
    - Beef management
  - 4. Jodi Putnam (Fall 2018) <u>major advisor</u>
    - M.Sc. Animal Science ('19)
    - Sulfur management of soybeans
- Current undergraduate advisees (start date):
  - 1. Annika Gerlach, Agricultural Science (Fall 2018)

- 2. DeVon Clinkscale, Animal Science (Fall 2018)
- 3. Amanda Lazar, Animal Science (Fall 2018)
- 4. Jada Miles, Animal Science (Fall 2018)
- 5. Claire Bloodnick, Animal Science (Fall 2018, t)
- 6. Daisy Fenwick, Agricultural Sciences (Fall 2018)
- 7. Randall Reinshagen, Agricultural Sciences (Fall 2018, t)
- 8. Bryce Shuster, Agricultural Sciences (Fall 2018, t)
- 9. Grant, Domagala, Animal Science (Fall 2018, t)
- 10. Elizabeth Brooks, Animal Science (Fall 2015)
- 11. Anjreyev Harvey, Animal Science (Fall 2015)
- 12. Tyra Jenkins, Animal Science (Fall 2015)
- 13. Chase Habig, Agricultural Sciences (Fall 2015)
- 14. Franklin (Chase) Stitzer, Agricultural Sciences (Fall 2015)
- 15. Danielle Hallie Shecter, Animal Science (Fall 2016)
- 16. Karina Villarroel, Animal Science (Fall 2016)
- 17. Emily Werdal, Animal Science (Fall 2016)
- 18. Aislinn Slaugenhaupt, Animal Sciences (Fall 2016)
- 19. Anna Birn, Agricultural Sciences (Fall 2016)
- 20. Marlie Lukach, Agricultural Sciences (Fall 2016)
- 21. Ji Ann Greensburg, Animal Science (Spring 2017)
- 22. Clarion DuBose, Agricultural Sciences (Fall 2017)
- 23. Katherine Gingrich, Agricultural Sciences (Fall 2017)
- 24. Conner Griffiths, Agricultural Sciences (Fall 2017)
- 25. Joshua Moscato, Agricultural Sciences (Fall 2017)
- 26. Abigail Codner, Agricultural Sciences/Animal Science (Fall 2017)
- 27. Lauren Martucci, Agricultural Sciences (Fall 2017 transfer junior)
- 28. Hannah Roman, Agricultural Sciences (Fall 2017)
- 29. Sabrina Molyneaux Sanchez, Animal Sciences (Fall 2017 transfer junior)
- Current undergraduate students (extension/research projects):
  - 1. Ben Lehmann, Agricultural Sciences
  - 2. John Steele, Agricultural Sciences
  - 3. Stuart Thornton, Agricultural Sciences
  - 4. Jason Cho, Statistical Science
  - 5. Hannah Roman, Animal Science
- Graduated undergraduate advisees (graduation date):
  - 1. Dan Frea, Agricultural Sciences (Fall 2018)
  - 2. Fruzsina Nagy, Agricultural Sciences (Fall 2018, t)
  - 3. Samantha Hackett, Interdisciplinary Studies (Spring 2017)
  - 4. Nathalie Hayot, Animal Sciences (Spring 2018)
  - 5. John Nystrom, Animal Sciences (Spring 2018)
  - 6. Taysia Radoslav, Animal Sciences (Spring 2018)
  - 7. Tamara Thompson, Animal Sciences (Spring 2018)
  - 8. Sarah Hetrick, Agricultural Sciences (Spring 2018)
  - 9. Dennis Atiyeh, Animal Sciences (Spring 2018)

- 10. Jacob Rathbun, Agricultural Sciences (Spring 2018)
- 11. Grace Mortellaro, Agricultural Sciences (Spring 2018)
- 12. Cassidy Fletcher, Agricultural Sciences (Fall 2017)
- 13. Rachel Karasek, Animal Science (Fall 2017)
- 14. Chutao Liu, Agricultural Sciences (Fall 2015-Spring 2017; honors student)
  - Honors thesis: Proximal canopy sensing to predict the quality of forage sorghum and optimal time of harvest
  - o nmsp.cals.cornell.edu/publications/impactstatements/ChutaoLiu.pdf
- 15. Emily Sitko, Animal Sciences (Spring 2017)
- 16. Stephanie Carter, Animal Science (Spring 2017)
- 17. Doneisha King, Animal Science (Spring 2017)
- 18. Marco Anichini, Agricultural Sciences and Animal Science (Spring 2016)
- 19. Amber Bornt, Agricultural Sciences and Animal Science (Spring 2016)
- 20. Melissa Garber, Animal Science (Spring 2016)
- 21. Jordan Owens-Hall, Animal Science (Spring 2016)
- 22. Rachel Breslauer, Agricultural Sciences (Spring 2016)
  - Honors thesis; spatial variability in corn stalk nitrate test
  - o nmsp.cals.cornell.edu/publications/impactstatements/RachelBreslauer.pdf
- 23. Omoye Usen, Animal Science (Fall 2015)
- 24. Aydan Ellman, Agricultural Sciences (Spring 2015)
- 25. Mary Beth Hannon, Animal Science (Spring 2015)
- 26. Bridgette Kennedy, Animal Science (Spring 2015)
- 27. Sarah McIlvennie, Agricultural Sciences (Spring 2015)

o <u>nmsp.cals.cornell.edu/publications/impactstatements/SarahMcIlvennie.pdf</u>

- 28. Andrew Gardinier, Agricultural Sciences (Spring 2014)
- 29. Sarah Curless, Animal Science (Spring 2014)
- 30. Elizabeth Farrow, Animal Science (Spring 2014)
- 31. Paula Corts, Animal Science (Fall 2013)
- 32. Nick Randle, Agricultural Sciences (Spring 2013)
- 33. Cathryn Dymond, Agricultural Sciences (Spring 2013)
- 34. Shanna Wade, Animal Science (Spring 2013)
- 35. Zofia Hilton, Animal Science (Spring 2013)
- 36. Aaron Santangelo, Agricultural Sciences (Spring 2013)
  - Cornell Cooperative Extension Intern
  - Currently with Cornell Cooperative Extension
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/AaronSantangelo.pdf</u>
- 37. Kelsey Silberman, Animal Science (Spring 2013)
- 38. Sara Stevens, Animal Science (Spring 2013)
- 39. Shona Ort, Animal Science (Fall 2012)
  - Honors thesis; cover crops in corn rotations
  - o Currently technician with NMSP, Animal Science, Cornell University
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/ShonaOrt.pdf</u>
- 40. Emma Long, Agricultural Sciences (Spring 2012)
  - Honors thesis; cover crops in corn rotation
  - o Currently graduate student at Animal Science, Cornell University
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/EmmaLong.pdf</u>

- 41. Jeff Williard, Agricultural Sciences (Fall 2011)
  - Honors thesis; enhanced efficiency fertilizers for nitrogen
  - Currently employed with Agricultural Consulting Service (ACS)
  - $\circ \quad \underline{nmsp.cals.cornell.edu/publications/impactstatements/JeffWilliard.pdf}$
- Past graduate students:
  - 1. Emma Long <u>major advisor</u>
    - M.Sc. Animal Science ('17)
    - Precision agriculture and its application to farm management
  - 2. Jeff Liebert minor advisor.
    - M.Sc. Soil and Crop Sciences ('16)
    - Cover and double crops
  - 3. Keenan McRoberts <u>minor advisor</u>.
    - Ph.D. Animal Science ('15)
    - Improved nutrient management for smallholder beef production in Vietnam
    - 2012 Gerald O. Mott Meritorious Graduate Student Award in Crop Science (\$2500)
  - 4. Neith Little <u>minor advisor</u>.
    - M.Sc. Soil and Crop Sciences ('13)
    - Weed pressure and soil fertility management
  - 5. Ryan Haden-<u>minor advisor</u>.
    - Ph.D. Soil and Crop Sciences ('11)
    - Fertility constraints in reduced-water rice systems.
    - Currently postdoctoral researcher at UC Davis.
  - 6. Lillian Magidow minor advisor.
    - M.Sc. Soil and Crop Sciences ('10).
    - Black and pale swallow-wort (*Vincetoxicum nigrum* and *V. rossicum*) sites in North America and the impact of abiotic soil factors on their occurrence and growth.
    - Currently Agrisolutions Technical Lead at Winfield Solutions (Land O'Lakes).
  - 7. Ryan Higgs <u>minor advisor</u>.
    - M.Sc. Animal Science ('09).
    - Nitrogen use efficiency and sustainable nitrogen management in high producing dairy farms.
    - Currently PhD student at Cornell University, Animal Science.
  - 8. Joe Lawrence-<u>major advisor</u>.
    - M.Sc. Soil and Crop Sciences ('08, defended 12/12/07).
    - Third Place, student presentations NEBASA/SSSA 2007.
    - Management of N inputs for corn over a rotation in New York (NY).
    - Currently Field Crops Extension Educator Cornell Cooperative Extension of Lewis County, NY.

o <u>nmsp.cals.cornell.edu/publications/impactstatements/JoeLawrence.pdf</u>

- 9. David Parsons-<u>minor advisor</u>.
  - Ph.D. Soil and Crop Sciences ('08, defended 12/7/07).
  - ASA Mott Award 2006.
  - Dynamics of smallholder crop-livestock systems in Yucatán (Mexico).

- Currently Research Fellow in Agronomy and Agricultural Systems at the School of Agricultural Science, University of Tasmania, Australia.
- 10. Elizabeth Brock <u>major advisor</u>.
  - M.Sc. Crop and Soil Sciences ('06), Cornell University.
  - Evaluation of phosphorus accumulation and loss dynamics in manure amended soils of New York (NY).
  - o Recipient of a 2004 Biogeochemistry and Biocomplexity Small Grant
  - o Recipient of a 2004 Andrew W. Mellon Student Research Grant.
  - First Place, student presentations NEBASA/SSSA 2005.
  - Currently in Vet School at Cornell.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/LizBrock.pdf</u>
- 11. Micah Woods minor advisor.
  - M.Sc./Ph.D. Horticulture ('06), Cornell University.
  - Nonacid cation bioavailability in sand rootzones.
  - First place in the graduate student presentation in C5 of the Crop Science Society of America (CSSA) annual meetings in 2004.
  - Industry Award in C5 of the CSSA annual meetings in 2003.
  - PPI-J. Fielding Reed Graduate Fellowship (2004).
  - GCSAA/Toro Watson Fellowship (2002).
  - Currently Founder and Director, Asian Turfgrass Center.
- 12. Beth Medvecky <u>major advisor</u>.
  - Ph.D. Crop and Soil Sciences ('06), Cornell University.
  - The influence of legume residue management on chafer grubs, bean root rot, and common bean productivity in Western Kenya (Kenya).
  - Rockerfeller Foundation Fellowship.
  - Currently Assistant Director, Cornell International Institute for Food, Agriculture and Development (CIIFAD) and Associate Director, Food Systems and Poverty Reduction IGERT.
- 13. Jonathan Klapwyk <u>major advisor</u>.
  - M.Sc. Crop and Soil Sciences ('05), Cornell University.
  - Assessment of the Illinois soil nitrogen test for New York corn production (NY).
  - 2004 Bradfield Graduate Student Award.
  - 2005 NE ASA/SSSA Outstanding Graduate Student Award.
  - First job: lecturer at Kemptville College, Ontario, Canada.
  - Currently Sales Support/Agronomist with Pride Seeds, Canada.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/JonKlapwyk.pdf</u>
- 14. Laura Acuna minor advisor.
  - Ph.D. Horticulture, Cornell University.
  - Carbon and nitrogen reserve status ad partitioning affect growth and yield in the perennial strawberry (*Fragaria x Ananassa* Duch.) (NY).
  - Current position unknown.
- 15. Darrin Parminder minor advisor.
  - M.Sc. Horticulture ('03), Cornell University.
  - Effect of time of planting, N rate, cover crops and variety on kidney bean yield (NY).

• Current position unknown.

## • Past undergraduate students research projects and internships (**bold=honor student**):

- 1. Jacob Schoifet, Statistical Science (Fall 2018)
  - B.Sc. Statistical Sciences ('18)
  - Yield monitor data cleaning and processing
- 2. Julia Fouts, Animal Science (Fall 2018)
  - B.Sc. Animal Science ('20)
  - Whole farm nutrient mass balances
- 3. John Harvey, Agricultural Sciences (Summer 2018)
  - B.Sc. Agricultural Science ('19) Cornell University
  - Summer intern with NMSP
  - Focus on crop sensors and nitrogen management
- 4. Elizabeth Serrano, Animal Science (summer 2018)
  - B.Sc. Animal Science ('20), Cornell University
  - Summer intern 2018, Sustainable Animal Systems
  - Impact of nutrient boom implementation on whole farm NMBs
- 5. **Sarah Hetrick**, Agricultural Sciences and Plant Science (Fall 2015- Spring 2018; honors student)
  - o B.Sc. Agricultural Sciences and Plant Sciences ('18) Cornell University
  - Laboratory analyses for nutrient management
  - 2016 Summer intern with NMSP
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/SarahHetrick.pdf</u>
  - Currently graduate student at Texas A&M
- 6. Jordi Verhoeven, Animal Science (Fall 2015-Spring 2018; honors student)
  - B.Sc. Animal Science ('18), Cornell University
    - Whole farm analysis; case study from Ohio
    - o <u>nmsp.cals.cornell.edu/publications/impactstatements/JordiVerhoeven.pdf</u>
    - Went to Argentina after graduation
- 7. Dennis Adhiye, Animal Science and Agricultural Science (Summer 2015)
  - B.Sc. Agricultural Sciences and Animal Science ('18), Cornell University
  - Manure application studies
  - Joined beef operation on Long Island after graduation
- 8. Brady Rogers, Agricultural Sciences (Summer 2017)
  - B.Sc Agricultural Sciences ('18), Cornell University
  - Crop sensors for yield and N management of Cornell University
  - o 2017 Summer intern with NMSP
- 9. Nikki Luijben, Van Hall Larenstein School of Applied Sciences, Netherlands
  - Summer intern 2017, Sustainable Animal Systems
  - $\circ~$  Evaluation of whole farm assessment tools; 3 country case study
  - <u>http://nmsp.cals.cornell.edu/publications/impactstatements/NikkiLuijben.</u> <u>pdf</u>
- 10. Chutao Liu, Agricultural Sciences (Fall 2015-Spring 2017; honors student)
  - Honors thesis: Proximal canopy sensing to predict the quality of forage sorghum and optimal time of harvest
  - 2016 summer intern

- o <u>nmsp.cals.cornell.edu/publications/impactstatements/ChutaoLiu.pdf</u>
- Continued with M.Sc. student at Wageningen University, the Netherlands
- 11. Lindsay Chamberlain, Plant Sciences (Summer 2016-Spring 2017; honors student)
  - Honors thesis: Passive and active sensors for yield predictions and precision nitrogen management in New York
  - Summer Intern with NMSP, Remote Sensing Team, Elson Shields, and CCE NWNY Dairy, Livestock & Field Crops Team
  - <u>nmsp.cals.cornell.edu/publications/impactstatements/LindsayChamberlain</u> <u>.pdf</u>
  - Currently M.Sc. student at the University of Wisconsin.
- 12. Nicole Smaranda, Agricultural Sciences (Summer 2016)
  - Certified crop advisor
  - Northeast Region Certified Crop Advisor program intern
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/NicoleSmaranda.pdf</u>

## 13. Zhehan Tang, Ag. Sciences (Summer 2015-Spring 2016; honors student)

- B.Sc. Agricultural Sciences ('16)
- Honors thesis; optimum N rates for winter cereals as forage crops in corn rotations
- Continued at University of California, Davis, as PhD student.

## 14. Rachel Breslauer, Ag. Sciences (Fall 2013-Spring 2016; honors student)

- B.Sc. Agricultural Sciences ('16)
- Honors thesis; spatial variability in corn stalk nitrate test
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/RachelBreslauer.pdf</u>
- Currently M.Sc. student at Washington State University.
- 15. Andrew Lefever, Agricultural Sciences (Fall 2014-Fall 2015)
  - o B.Sc. Agricultural Sciences ('16), Cornell University
  - Soil health and greenhouse gas emissions
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/AndrewLefever.pdf</u>
- 16. Elsa de Becker, Plant Sciences (Summer 2015)
  - B.Sc. Plant Sciences ('18)
  - Summer intern
  - Potassium stalk test and whey project
- 17. Isaac Cornell, Animal Sciences (Summer 2015)
  - B.Sc. Animal Science ('16), Cornell University
  - Summer intern
  - Precision agriculture
- 18. Elyce Buell, Agricultural Engineering (Summer 2014)
  - B.Sc. Biological and Environmental Engineering ('16)
  - Summer intern
  - o Soils of New York
  - Continued at Virginia Tech as PhD student
- 19. Tyler Pardoe, Agricultural Sciences (Summer 2014)
  - o B.Sc. Agricultural Sciences (Spring '15), Cornell University
  - Greenseeker technology
  - Joined Agrinetix after graduation

- o <u>nmsp.cals.cornell.edu/publications/impactstatements/TylerPardoe.pdf</u>
- 20. Anne Mills (Summer 2014)
  - B.Sc. Agricultural Sciences (Spring '15), Cornell University
  - Summer Intern with CCE NWNY Dairy, Livestock & Field Crops Team
  - $\circ \ \underline{nmsp.cals.cornell.edu/publications/impactstatements/AnneMills.pdf}$
  - Joined Cornell Cooperative Extension after graduation
- 21. Priya Sathiye, Animal Sciences (Fall 2013)
  - B.Sc. Animal Science ('14), Cornell University
  - o Laboratory analyses in nutrient management
- 22. Lars Demander (Summer 2012-Winter 2014)
  - o B.Sc. Agricultural Sciences ('14), Cornell University
  - Summer Intern
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/LarsDemander.pdf</u>
- 23. Diego Gris (Summer 2013)
  - B.Sc. Agriculture in Brazil
  - Cover crops
  - Returned to Brazil to complete degree program.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/DiegoGris.pdf</u>
- 24. Derek Zerkowski (Fall 2012-Spring 2013)
  - o B.Sc. Agricultural Sciences ('13), Cornell University
  - Manure injection
  - Joined NRCS in NY.
- 25. Valerie Bollinger (Spring 2011-Fall 2012)
  - B.Sc. Agricultural Science ('13), Cornell University
  - Soil N supply of a corn and alfalfa rotation.
  - Joined consulting firm in PA.
- 26. Sara Orlowski (Summer 2012-Fall 2012)
  - o B.Sc. Agricultural Sciences ('14), Cornell University
  - Soybean management
  - Continued with a PhD degree.

## 27. Shona Ort (Fall 2011-Fall 2012; honors student)

- o B.Sc. Animal Science ('12), Cornell University
- Cover crops in corn rotations
- 2013 NEBCSA Outstanding Senior Award.
- Continued with MS degree at University of New Hampshire
- Currently with Cornell Cooperative Extension of Chemung County.
- nmsp.cals.cornell.edu/publications/impactstatements/ShonaOrt.pdf

## 28. Emma Long (Spring 2009-Spring 2012; honors student).

- B.Sc. Agricultural Science ('12), Cornell University.
- Cover crops on corn silage systems in New York.
- Recipient of 2010 PCCW Student Research Grant
- 2012 NEBCSA Outstanding Senior Award.
- Hunter Rawlings Presidential Research scholar.
- Joined our program as MS degree student in 2012.
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/EmmaLong.pdf</u>
- Currently Crop manager at CY Farms

## 29. Yike Bing (Spring 2011-Spring 2012; honors student)

- B.Sc. Animal Science ('12)
- Potassium soil testing and magnesium factsheet.
- Enrolled in Vet School at Cornell.
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/YikeBing.pdf</u>
- 30. Joe Killian (Summer 2011 intern)
  - B.Sc. Agricultural Science and Agricultural Education ('12)
  - Cover crop N dynamics. Intern in summer 2011
  - Pursued a masters in teaching at Cornell.

## 31. Julia Knight (Spring 2010-Fall 2011; honors student).

- B.Sc. Animal Science ('12)
- Phosphorus saturation; implications for New York State
- Recipient of a 2010 Andrew W. Mellon Student Research Grant.
- Recipient of a NYS-SWCD Small Grant.
- Worked with Western New York Crop Management Association
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/JuliaKnight.pdf</u>

## 32. Jeff Williard (Fall 2009-Fall 2011; honors thesis).

- B.Sc. Agricultural Sciences ('11).
- Enhanced efficiency nitrogen fertilizers.
- Recipient of a 2010 Andrew W. Mellon Student Research Grant.
- Worked for Agricultural Consulting Service Inc.
- Currently Agronomy/Sales at Carolina Eastern-Crocker, LLC.
- o nmsp.cals.cornell.edu/publications/impactstatements/JeffWilliard.pdf
- 33. Sally Stead (Summer Intern, 2011)
  - Agricultural Sciences ('11)
  - Solvita test for soil N supply
  - Returned to Australia, working with Department of Primary Industries
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/SallyStead.pdf</u>
- 34. Sarah McIlvennie (Spring 2011)
  - New Visions in Life Sciences student (highschool)
  - Cover crop C, N, and ISNT dynamics.
  - Joined Cornell Ag Sciences major in fall 2011.
  - o nmsp.cals.cornell.edu/publications/impactstatements/SarahMcIlvennie.pdf

## 35. Chang Lian (Spring 2009- Spring 2010; Honor Student).

- B.Sc. Agricultural Sciences ('10).
- Potassium management of alfalfa in corn-alfalfa rotations.
- Recipient of a 2010 Andrew W. Mellon Student Research Grant.
- Continued with a PhD (agr. economics) at Univ. of Wisconsin, Madison.
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/ChangLian.pdf</u>
- 36. Margaret Dunn (Fall 2009-Spring 2010).
  - B.Sc. Animal Science ('10).
  - NRCCA learning modules.
  - Joined Iowa State University for a MS degree.
  - Worked for Practical Farmers of Iowa.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/MargaretDunn.pdf</u>
- 37. Joe Foster (Summer 2010)

- Bachelor of Technology ('10), Cobleskill.
- Internship (June 1-August 26).
- Soil survey and Starter N for Corn Project.
- Currently Agronomist at Laing-Gro Fertilizers Inc.
- o <u>nmsp.cals.cornell.edu/publications/impactstatements/JosephFoster.pdf</u>
- 38. Eun Hong (Fall 2009-Spring 2011).
  - Bachelor of Technology ('09), Cobleskill.
  - Internship (September 8-December 18, 2009).
  - o Boron and corn stalk nitrate test sampling assessment.
  - Returned to Korea to continue a degree program.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/EunHong.pdf</u>
- 39. Sarah Moss (Fall 2006-Fall 2009; workstudy).
  - B.Sc. Animal Science ('10), Cornell University.
  - Whole farm nutrient balances and manure sampling analysis.
  - Working for Cargill as Dairy Nutritionist
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/SarahMoss.pdf</u>
- 40. Hillary Bundick (Summer 2009).
  - Bachelor of Technology ('09), Cobleskill.
  - Internship (June 1-August 26).
  - o Protected N sources.
  - Currently Research Agronomist with Cold Region Research and Engineering Laboratory
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/HillaryBundick.pdf</u>
- 41. John Weiss (Summer 2009).
  - Bachelor of Technology ('09), Cobleskill.
  - Internship (June 1-August 26).
  - Nitrogen fertilizers.
  - Currently Assistant Grower at Moon Nurseries of Maryland
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/JohnWeiss.pdf</u>
- 42. Graham Swanepoel
  - B.Sc. Lincoln University, New Zealand ('10).
  - Internship (June-August. 2009)
  - Economic assessment of whole farm nutrient balances.
  - Continued with MS degree at Colorado State University.
  - <u>nmsp.cals.cornell.edu/publications/impactstatements/GrahamSwanepoel.</u> <u>pdf</u>
- 43. Kate Orloski (Summer and Spring 2009)
  - o B.A. Sociology ('10)
  - Summer internship and independent study (4-credits) in fall 2008.
  - Plant residue decomposition dynamics and impact of timing and method of sampling and sample handling on stalk nitrate test results.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/KateOrloski.pdf</u>
- 44. Chie Miyamoto (Spring 2008).
  - Bachelor of Technology ('08), Cobleskill.
  - Internship (Feb 4-May 20, 2008).
  - Sulfur soil testing for alfalfa in New York soils.

- Co-author on two publications (2011 and 2012)
- Returned to Japan to work for a chemical company.
- o nmsp.cals.cornell.edu/publications/impactstatements/ChieMiyamoto.pdf
- 45. Scott Grandt (Fall 2005) Presidential Scholar and honors student.
  - B.Sc. Crop and Soil Sciences and Applied Economics and Management (double major, '08), Cornell University.
  - Spatial variability of soil test phosphorus data.
  - 2008 NEBCSA Outstanding Senior Award.
  - Recipient of a 2005 and 2006 Morley Undergraduate Research Grants.
  - Recipient of a 2005 Cornell University Agricultural Experiment Station Hatch Supplement Grant for undergraduate independent research.
  - Honor's thesis.
  - Lead-author on 2010 publication (see journal publication list).
  - Employed by CITIbank after graduation
  - o Currently Financial Advisor for Goldman, Sachs & Co. in New York.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/ScottGrandt.pdf</u>
- 46. Sara Place (Summer 2007).
  - B.Sc. Animal Science ('08), Cornell University.
  - CALS nutrient management intern in Lewis County CCE, summer 2007.
  - Stalk nitrate test for corn in New York and sulfur in alfalfa in New York.
  - Graduated with a PhD in Animal Science from UC Davis.
  - Currently Assistant Professor at Oklahoma State University
  - o nmsp.cals.cornell.edu/publications/impactstatements/SaraPlace.pdf
- 47. Miriam Goler (Spring and Fall 2007, sophomore).
  - B.Sc. Agricultural Sciences ('09), Cornell University.
  - Sod credits and the Illinois Soil N Test.
  - Co-author on publication (see journal publication list).
  - SUNY Chancellor's Student Excellence award in 2009.
  - NEBCSA 2009 Outstanding Senior Award.
  - Currently Fresh Food for All VISTA Associate, New York City
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/MiriamGoler.pdf</u>
- 48. Wayne Berry (Summer and Fall 2007, senior).
  - Bachelor of Technology ('07), SUNY Cobleskill.
  - Intern, focus on manure treatments options for N conservation and P fixation using BMR sorghum x sudangrass.
  - Current position unknown.
  - o <u>nmsp.cals.cornell.edu/publications/impactstatements/WayneBerry.pdf</u>
- 49. Charles Hyland (Fall 2005, senior).
  - B.Sc. Crop and Soil Sciences.
  - Phosphorus sorption capacity of Northern New York soils.
  - Recipient of a 2005 Dextra Undergraduate Research Endowment Fund.
  - Recipient of a 2005 Cornell University Agricultural Experiment Station Hatch Supplement Grant for undergraduate independent research.
  - Continued as MS student in Soil and Crop Sciences at Cornell.
  - Current position unknown.
- 50. Michele (Dan) Wang (Fall 2004-Spring 2005).

- o B.Sc. Crop and Soil Sciences ('06), Cornell University.
- Amino sugar N test for New York (NY).
- Recipient of a 2004 Morley Student Research Grant.
- Co-author on publication (see journal publication list).
- Enrolled in and graduated from Food Science at Cornell University.
- Current position unknown.
- 51. Rory Mauro (Summer help 2004).
  - B.Sc. Animal Science ('05), Cornell University.
  - Summer help with ongoing projects in NY.
  - Enrolled in and graduated from Environmental Health Sciences at Columbia University.
  - Current position unknown.
- 52. Andy Durow (Summer help 2003).
  - B.Sc. Animal Science ('05), Cornell University.
  - Summer help with ongoing projects in NY.
  - Currently herd manager for Willett Dairy, NY.
- 53. Natalie Galens (Spring 2002-2003).
  - B.Sc. Agronomy ('03), Cornell University.
  - Illinois soil N test as replacement for the PSNT in New York? (NY).
  - 2003 NE ASA Outstanding Senior Award.
  - Recipient of a 2002 Morley Student Research Grant.
  - Currently working with FSA, Cayuga County, NY.
- 54. Alex Wright (Undergraduate research project Fall 2002).
  - B.Sc. Agronomy ('03), Cornell University.
  - Starter P use for corn.
  - Enrolled in and graduated from Professional Agriculture Program at Iowa State University.
  - Returned to NY to become Field Crop Educator of Cornell Cooperative Extension of Rensselaer County, NY.
  - Currently employed by Carovail in Salem, NY.
- 55. Joe Orloski (undergraduate research project Summer 2001-2002).
  - B.Sc. Biology ('03), Cornell University.
  - Effect of N and K management on reed canary grass root development and C and N distribution over depth (NY).
  - Co-author on publication (see journal publication list).
  - Enrolled in and graduated from medical school in Pittsburg, PA.
  - Currently ER physician in Fort Lauderdale, FL.
- Student interns from Larenstein International College, the Netherlands.
  - 1. Johan Mekken (6 month thesis project in Spring and Summer 2005)
    - B.Sc. Land and Water Management ('05), Larenstein International College, the Netherlands.
    - $\circ$  Evaluation of the New York phosphorus balances (NY).
  - 2. Erwin Nijsingh (3 months undergraduate research project in Fall 2004)
    - B.Sc. Land and Water Management ('05), Larenstein International College, the Netherlands.

- Effect of compost and manure management on soil physical characteristics (NY).
- 3. Sander van den Hoogen (6 months post graduate in Winter and Spring 2004)
  - B.Sc. Land and Water Management ('03), Larenstein International College, the Netherlands.
  - Illinois soil N test as replacement for the PSNT in New York?
- 4. Marike Noij (3 month undergraduate research project in Winter 2003).
  - B.Sc. Land and Water Management ('04), Larenstein International College, the Netherlands.
  - Aggregate distribution and stability method development (NY).
- 5. Desiree Brandhorst (undergraduate research project in Winter 2003).
  - B.Sc. Land and Water Management ('04), Larenstein International College, the Netherlands.
  - Illinois soil N test as replacement for the PSNT in New York? (NY).

#### o Awards:

At Cornell University:

- 2018 Northeast Region Certified Crop Advisor Appreciation Award. Received on November 29, 2018, at the Northeast Region Certified Crop Advisor Annual Training.
- 2017 Carl Sprengel Agronomic Research Award. Recognized at the 2017 ASA/SSSA/CSSA annual meeting in Tampa, Florida, October 22-25, 2017.
- 2016 Cornell College of Agriculture and Life Sciences' Award for Outstanding Accomplishments in Extension/Outreach. Cornell University, Nov. 7, 2016.
- 2015 Soil Science Society of America (SSSA) Fellow. Recognized at the 2015 ASA/SSSA/CSSA annual meeting in Minneapolis, Minnesota, November 15-18, 2015.
- 2014 Agronomy Society of America (ASA) Fellow. Recognized at the 2014 ASA/SSSA/CSSA annual meeting in Long Beach, California, November 2-5, 2014.
- 2013 NACAA Communications Regional Winner Field Crops Factsheet Series (Factsheet category). Awarded at the NACAA national meeting in Pittsburgh, Sept. 19, 2013.
- 2013 NACAA Communications Regional Winner Nutrient Management Spear Program Website (Website category). Awarded at the NACAA national meeting in Pittsburgh, Sept. 19, 2013.
- 2012 Cornell College of Agriculture and Life Sciences' Award for Outstanding Accomplishments in Applied Research. Cornell University.
- 2011 Mid-Atlantic Regional Educational Institution and Federal Laboratory Partnership Award. Co-awarded to: Peter Kleinman, Doug Beegle, Heather Karsten, Robin Brandt, Rory Maguire, Arthur Allen, Josh McGrath, Greg Binford, and Daniel Pote.
- 2011 Extension Industry Award. Northeastern Branch of Agronomy Society of America, Crop Science Society of America, Soil Science Society of America (NEBCSA).
- 2009 Faculty Innovative Teaching Award. "CALS Students Become Certified Crop Advisors". One of three projects selected in CALS in 2009.
- 2009 Project Leader of the Year. Awarded by the farmer board of the New York Farm Viability Institute (NYFVI).
- 2008 Research Award. Northeastern Branch of Agronomy Society of America, Crop Science Society of America, Soil Science Society of America (NBCSA).

- 2006 Northeast Region Certified Crop Adviser (NRCCA) President's Award for Outstanding Service.
- 2005 NYS Association of County Agricultural Extension Educators (NYSACAA) Outstanding New Publication Award for the series of 56 County-based "Soil Sample Surveys". Co-Awardees: Hetty Krol\* and Shaw Reid.
- 2004 Faculty Innovative Teaching Award for AS/CSS 412: "Bridging the classroom and the farm for improved whole farm nutrient management". Co-Awardees: Greg Albrecht and Mike Van Amburgh. One of three projects selected in CALS in 2004.
- 2002 Merit Award. Soil and Water Conservation Society, Empire State Chapter. For "Outstanding Effort in Promoting the Conservation of Natural Resources in New York". December 2002.
- 2002 Special Achievement Award. Soil and Water Conservation Society, Empire State Chapter. Award for the entire Cropware Team for "Developing a Computer Software Program to Balance Nutrient Management Budgets and Conserve Natural Resources". December 2002.
- 2001 Affino Stewart Award. President's Council of Cornell Women. June 2001.

At Ohio State University:

- First place in Agricultural Sciences in the Edward F. Hayes Graduate Research Forum at the Ohio State University. April 1999.
- International Research Award. International Scholarships Ohio Intern Program. August 1998.
- Graduate Student International Research Travel Grant. May 1998.
- First place in Agricultural Sciences in the Edward F. Hayes Graduate Research Forum at the Ohio State University. April 1998.
- Graduate Student Alumni Research Award. October 1996.
- Mervin G. Smith Memorial Award. International Scholarships Ohio Intern Program. August 1996.
- Multiple-Year European Agricultural Fellowship/Associateship Award. The Ohio State University Graduate School. August 1993.

#### o **Professional membership:**

- New York State Association of County Agricultural Agents. 2009-present.
- Epsilon Sigma Phi, Honor Society of Cooperative Extension. 2007-present.
- Soil and Water Conservation Society. Empire State Chapter. 2000-present.
- International Society of Soil Science. 1998-present.
- Soil Science Society of America, Agronomy Society of America. 1998-present.
- Sigma Xi, the Scientific Research Society. 1999-present.
- Honor Society of Phi Kappa Phi. Membership 1995-present.
- American Association for the Advancement of Science. 1999-2001.
- Phi Beta Delta, Honor Society for International Scholars. 1999-2001.

#### • Associate Editor:

- Soil Science Society of America Journal, division S8 (2007-2012).
- Forage and Grazinglands (2007-2012).

#### o Ad-hoc reviewer for:

- Agriculture Ecosystems and Environment.
- Agricultural Systems.
- Agroforesty Systems.
- Agronomy Journal.
- Ecosystems.
- Environmental Conservation.
- Forage and Grazinglands.
- HortScience.
- Journal of Agricultural Science
- Journal of the Royal Society of New Zealand.

- Journal of Environmental Quality.
- Journal of Soil and Water Conservation.
- New Zealand Journal of Agricultural Research.
- Soil and Tillage Research.
- Soil Science.
- Soil Science Society of America Journal.
- Soil Use and Management.

## • Funding agency invited reviews:

- Chesapeake Bay Watershed. Nutrient Management Phase 6 BMP Expert Panel. Member (2015-2017).
- Chesapeake Bay Watershed Research and Outreach Collaborative (CBW-ROC) Steering Committee (2014 - 2017).
- Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NOW) Council for the Earth and Life Sciences (ALW). Thematic focus 2011-2012 for joint research projects: 'Agriculture & Food: How to Feed the World?' (2012).
- Competitive Grant Program at UC Agriculture and Natural Resources (2012).
- Science Review for OMAFRA, Canada (2010).
- University of Maryland's Nutrient Use Efficiency (NUE) Panel, Chesapeake Bay Program (2009).
- Teresa Heinz Scholars for Environmental Research (2008).
- USDA SBIR (2008).
- Cornell University Teaching Innovation Grants (CALS contact person in 2008).
- University of California Energy Biosciences Institute (2007).
- Maryland Harry R. Hughes Center for Agro-Ecology, Inc. (2007).
- Federal Formula Reviews for Vermont, New York, New Hampshire (since 2002).
- VIRECA, Water Quality: reducing non-point source pollution (2002).

#### • Other services:

Current

- ASA/SSSA/CSSA
  - ASA Fellows Committee (2016-current)
  - Werner L. Nelson Award committee (2016-current)
  - Werner L. Nelson Scholarship committee (2016-current)
- NECC-1312/67/1007/1012/2141 "Northeast Coordinating Committee on Soil Testing"
  - Member, 2001-present.
- SERA-17 "Organization to Minimize Phosphorus Losses from Agriculture"
  - Member, 2001-present.
  - Chair, 2008-2009.
  - Member of SERA-17 "NRCS590" subcommittee in 2010-2011.
  - Host of the 2006 SERA-17 Conference at Cornell University.

- NEERA1002 "Adaptive management for improved nutrient management"
  - Member. 2009-present.
  - One of three presenters NRCS Adaptive Management Webinar Series (2012-'13)
- College of Agriculture and Life Science (CALS) Program Work Teams (PWT)
  - Co-chair of "CALS Integrated Nutrient Management PWT". 2001-2014 (no longer active as PWT).
  - Member "Crop and Soil Management PWT". 2001-present.
  - Member "Dairy PWT". 2008-? (no longer active as PWT).
- College of Agriculture and Life Science (CALS)
  - CALS Farm Advisory Committee:
    - Member. 2009-present.
  - Petitions Committee
    - Member. 2016-current.
    - Search Committee
      - Faculty position in forage breeding in SIPS, 2018-present.
- Cornell Cooperative Extension
  - Selection committees:
    - Field crops educator Eastern Northern NY region (2012-13).
    - Field crops educator Northern New York region (2011).
    - State Extension Specialists CCE Administration, 2 positions (2011).
    - Dairy educator Orange and Ulster Counties (2010-2011).
    - Field crops educator Rensselaer County (2009).
    - Field crops educator Northwestern NY Field Crops and Dairy (2009).
    - Field crops educator St Lawrence County (2008).
  - Advisory committees:
    - Northern New York field crops (2010-2016).
    - Capital District CCE (2012-current).
- Animal Science Honors Committee:
  - Member. 2010-current.
- Animal Science Extension:
  - Department Extension Leader. 2014-current.
- Other services:
  - Chesapeake Bay Nutrient Management BMP Expert Panel (2015-current).
  - Advisory committee for Mid Atlantic Water Quality Program (2013-current).
  - Board member International Soil and Plant Analysis Council (2014-current).
  - Six tenure and promotion reviews within and outside of Cornell University

Past

- International Certified Crop Advisor (ICCA)
  - Member of the exam committee, 2010-2013, 2015-2017.
- Northeast Region Certified Crop Advisor (NRCCA):
  - Co-Chair of the Board of Directors. 2005-2017.
  - Chair Organizing Committee NRCCA Annual Conference. 2003-2016.
  - Chair Exam Committee. 2003-2016.
  - Member. 2002-2017.
- New York State Agricultural Business Association (NYSABA):

- Board member (Cornell representative). 2009-2014.
- ASA/CSSA/SSSA:
  - Selection Committee S-11 Outstanding Student Award 2010.
  - S585 Emerging Issues in Soil Science Committee. SSSA. 2006-2010.
  - Women in Agronomy, Crops, Soils and Environmental Sciences Committee. 2006-2009.
- Northeastern Branch of the Agronomy Society of America (currently NEBCSA):
  - At-Large Branch Director 2010-2012 and 2004-2006.
  - Organizer of 2010 NEBCSA conference at Cornell (June 27-30, 2010)
  - Awards Committee. 2002-2005.
- Cornell University Senate:

•

- Member (alternate). 2011-2012.
- College of Agriculture and Life Science (CALS)
  - Search committee for large grant coordination position in CALS
    - Member. 2017.
  - Outreach Policy Program Committee:
    - Member: 2005-2006.
  - Land Grant Mission Task Force:
    - Member: 2006-2007.
  - CALS Senate:
    - Member. 2012-2015.
  - CALS Curriculum Committee:
    - Member (representing Ag Sciences). 2012-2014.
- Department of Crop and Soil Sciences
  - Member of the CSS Farm Committee. 2000-2008.
  - Member of the CSS Web Committee. 2006-2008.
  - Member of the Environmental Sciences IT Committee. 2006-2008.
- Faculty Advisory Committee for the Cornell Nutrient Analyses Laboratory:
  - Member. 2001-2010, 2016-current
  - Chair. 2003-2010.
- Other services:
  - NRCS 590 standard revision committee (2012-2015).
  - Advisory committee to national NRCS (2011-2015).
  - Chesapeake Bay Phosphorus Advisory Group (2011-2015).
  - Chesapeake Bay Cover Crop Advisory Group (2011-2015).
  - Manure Expo, Educational Advisory Committee (Held July 15, 2010)
  - Chesapeake Bay Goal 2025; Steering Committee (Held Oct 5/6, 2010)
  - Tenure and promotion reviews for 3 faculty in 2012 (one within CALS, two for other universities), and 2 faculty in 2013 to date (one within CALS, one outside).
  - External reviewer for PhD candidate at University of Belfast, Northern Ireland (July 2014).
- Software originating in the Spear Program (downloadable: <u>http://nmsp.cals.cornell.edu</u>):
  - Cornell Cropware. NRCS approved Crop and Manure Nutrient Management Software for New York. Transitioned to the private sector in 2011.
  - NY P Index Calculator. Excel spreadsheet and on-web tool.

- Soil Test Conversions for the Northeast. Excel spreadsheet and on-web tool.
- Nitrogen Guidelines. Excel spreadsheet.
- Whole Farm Mass Nutrient Balance. Excel spreadsheet.
- Value of Manure. Excel spreadsheet.
- Illinois Soil N Test and Stalk Nitrate Calculator. Excel spreadsheet.

#### o Nutrient management websites:

- Nutrient Management Spear Program: <u>http://nmsp.cals.cornell.edu</u> (officially recognized by NRCS and the CAFO process as the website for Cornell University (land grant) nutrient guidelines for field crops). Regional Award winner NACAA.
- Nitrogen Management on Dairy Farms: <u>http://www.dairyn.cornell.edu/</u>.
- On-line Whole Farm Nutrient Management tutorials (five learning modules): <u>http://courses.cit.cornell.edu/css412/</u> (developed with a Teaching Innovation Award).
- New York On-Farm Research Partnership (network for on-farm research in nutrient management): <u>http://nmsp.cals.cornell.edu/NYOnFarmResearchPartnership/index.html</u>.
- Northeast Region Certified Crop Advisor basic training website (learning modules): <u>http://nrcca.cals.cornell.edu/</u>.

## • Major organizer in extension events:

- Northeast Region Certified Crop Advisor Conference (lead organizer):
  - 2016 NRCCA Conference. Syracuse, Nov 20-Dec 1, 2016. ~220 participants. (Co-lead organizer: Greg Albrecht)
  - 2015 NRCCA Conference. Syracuse, December 1-3, 2015. ~225 participants.
  - 2014 NRCCA Conference. Syracuse, December 2-4, 2014. ~225 participants.
  - 2013 NRCCA Conference. Syracuse, December 3-5, 2013. ~250 participants.
  - 2012 NRCCA Conference. Syracuse, Nov 27 29, 2012. ~220 participants.
  - 2011 NRCCA Conference. Syracuse, Nov 29 Dec 1, 2011. ~200 participants.
  - 2010 NRCCA Conference. Waterloo, Nov 30 Dec 2, 2010. ~200 participants.
  - 2009 NRCCA Conference. Waterloo, December 8-10, 2009. ~170 participants.
  - 2008 NRCCA Conference. Waterloo, December 9-11, 2008. ~175 participants.
  - 2007 NRCCA Conference. Waterloo, December 4-6, 2007. ~180 participants.
  - 2006 NRCCA Conference. Waterloo, December 5-7, 2006. ~180 participants.
  - 2005 NRCCA Conference. Waterloo, Nov 29 Dec 1, 2005. ~150 participants.
  - 2004 NRCCA Conference. Waterloo, Nov 30 Dec 2, 2004. ~140 participants.
  - 2003 NRCCA Conference. Waterloo, December 2-4, 2003. ~100 participants.
- Nutrient Management Spear Program Retreats:
  - 2016 Summer Field Crops Retreat (under leadership of Joe Lawrence, PRODAIRY). Ithaca, July 18-19, 2016. 20 participants
  - 2015 Spring Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 5-6, 2012. 15 participants.
  - 2012 Spring Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 5-6, 2012. 20 participants.
  - 2011 Spring Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 11-12. 26 participants.

- 2009 Spring Nutrient Management Spear Program Field Crops Educator Retreat (combined with Animal Science faculty). Ithaca, April 8-9. 44 participants.
- 2008 Spring Nutrient Management Spear Program Field Crops Educator Retreat. Mt Pleasant, March 31-April 1. 28 participants.
- 2007 Summer Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, July 26-27. 24 participants.
- 2007 Spring Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 4-5, 2007. 20 participants.
- 2006 Winter Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 3-4, 2006. 27 participants.
- 2005 Summer Nutrient Management Spear Program Field Crops Educator Retreat and Weed Days. Valatie, July 5-6, 2005. 22 participants.
- 2005 Winter Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, April 5, 2005. 22 participants.
- 2004 Summer Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, July 30-August 1, 2004. 22 participants.
- 2004 Winter Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, March 29, 2004. 30 participants.
- 2003 Summer Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, July 15-16, 2003. 15 participants.
- 2003 Winter Nutrient Management Spear Program Field Crops Educator Retreat and On-farm Research Workshop. Ithaca, April 1-2, 2003. 22 participants.
- 2002 Summer Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, September 2-5, 2003. 19 participants.
- 2002 Winter Nutrient Management Spear Program Field Crops Educator Retreat. Cortland, April 5, 2003. 17 participants.
- 2001 Summer Nutrient Management Spear Program Field Crops Educator Retreat. Ithaca, July 24-26, 2003. 19 participants.
- 2001 Winter Nutrient Management Spear Program Field Crops Educator Retreat. Cortland, January 22, 2001. 19 participants.

## • Regular presenter in recurring extension events:

- Northeast Region Certified Crop Advisor (NRCCA) Conference.
- CNMP Training ("March Water Quality Symposium").
- AEM training.
- Field Crop Dealer Meetings.
- Aurora Research Farm Field Day.
- November Ag InService.
- Various extension educator field days and winter meetings.

#### • **Book chapters:**

 Koelsch, R.K. and Q.M. Ketterings (2017). Whole Farm Nutrient Balance: Systems Approach to Dairy Nutrient Planning. In: Large Dairy Herd Management, 3<sup>rd</sup> Edition. <u>http://ldhm.adsa.org/</u>. Editor D.K. Beede. Published by the American Dairy Science Association, Champaign, IL.

#### • Peer-reviewed publications (\*indicates NMSP staff or current/former student advisees):

Total	<b>'</b> 19	<b>'</b> 18	<b>'</b> 17	<b>'</b> 16	<b>'</b> 15	<b>'</b> 14	<b>'</b> 13	<b>'</b> 12	<b>'</b> 11	<b>'</b> 10	<b>'</b> 09	'08	<b>'</b> 07	<b>'</b> 06	<b>'</b> 05	<b>'</b> 04	<b>'</b> 03	<b>'</b> 02	<b>'</b> 01	<b>'</b> 00 <b>'</b>	<b>'</b> 99	<b>'</b> 97
123	4	3	19	8	5	4	5	6	10	5	10	3	8	9	11	2	1	4	1	2	2	1

2019 (4 articles to date):

- 1. Lyons, S.E., Q.M. Ketterings, S. Ort, G.S. Godwin, S.N. Swink, K.J. Czymmek, D.J. Cherney, J.H. Cherney, J.J. Meisinger, and T.F. Kilcer (2019). Nitrogen management for forage winter cereals in the Northeastern USA. Soil Science Society of America Journal (*in press*).
- 2. Lyons, S.E., Q.M. Ketterings, G.S. Godwin, D.J. Cherney, J.H. Cherney, M.E. Van Amburgh, J.J. Meisinger, and T.F. Kilcer (2019). Optimal harvest timing for brown midrib forage sorghum yield, nutritive value, and ration performance. Journal of Dairy Science (*in press*).
- 3. Lyons\*, S.E., Q.M. Ketterings, G.S. Godwin\*, D.J. Cherney, J.H. Cherney, J.J. Meisinger, and T.F. Kilcer (2019). Nitrogen management of brachytic dwarf brown midrib forage sorghum in New York. Agronomy Journal (*in press*).
- 4. Kharel, T.P., S.N. Swink, A. Maresma, C. Youngerman, D. Kharel, K.J. Czymmek, and Q.M. Ketterings (2019). Yield monitor data cleaning is essential for accurate corn grain/silage yield determination. Agronomy Journal (*in press*).

2018 (3 articles):

- Lyons\*, S.E., Z. Tang, J. Booth, and Q.M. Ketterings (2018). Nitrogen response models for winter cereals grown for forage. Journal of Agronomy and Crop Science 1-14. doi:10.1111/jac.12310.
- Lyons\*, S.E., Q.M. Ketterings, G. Godwin\*, J.H. Cherney, K.J. Czymmek, and T. Kilcer (2018). Spring N management is important for triticale forage yield and quality. Agronomy Journal 110:1–8. doi:10.2134/agronj2018.01.0041.
- Tagarakis\*, A., and Q.M. Ketterings (2018). Proximal sensor-based algorithm for variable rate nitrogen application in maize in the Northeastern USA. Computers and Electronics in Agriculture 145: 373-378. <u>https://doi.org/10.1016/j.compag.2017.12.031</u>.

2017 (19 articles):

- Sadeghpour\*, A., Q.M. Ketterings, F. Vermeylen, G.S. Godwin, and K.J. Czymmek (2017). Nitrous oxide emissions from surface versus injected manure in perennial hay crops. Soil Science Society of America Journal 82:156-166. doi: 10.2136/sssaj2017.06.0208.
- Morris, T.F., T.S. Murrell, D.B. Beegle, J.J. Camberato, R.B. Ferguson, J. Grove, Q.M. Ketterings, P.M. Kyveryga, C.A.M. Laboski, J.M. McGrath, J.J. Meisinger, J. Melkonian, B.N. Moebius-Clune, E.D. Nafziger, D. Osmond, J.E. Sawyer, P.C. Scharf, W. Smith, J.T. Spargo, H.M. van Es, H. Yang (2017). Strengths and limitations of nitrogen rate recommendations for corn and opportunities for improvement. Agronomy Journal 110:1–37 doi:10.2134/agronj2017.02.0112.
- Cherney, J.H., Q.M. Ketterings, M.H. Davis, D.J.R. Cherney, and K. M. Paddock (2017). Management of warm- and cool-season grasses for biomass on marginal lands: II. Composition and Nutrient Balance. BioEnergy Research. DOI 10.1007/s12155-017-9870-3

- Cherney, J.H., J.H., Q.M. Ketterings, M. Davis, D.J.R. Cherney, and K.M. Paddock (2017). Management of warm- and cool-season grasses for biomass on marginal lands: I. yield and soil fertility status. BioEnergy Research DOI 10.1007/s12155-017-9869-9.
- 12. Ketterings, Q.M., S. Gami\*, G. Godwin\*, E. Hong\*, K. Orloski\*, R. Breslauer\*, C. Liu\*, and R.R. Mathur (2017). Improving sample collection, sample processing, and laboratory analyses for corn stalk nitrate test. Agronomy Journal 109:2312–2322. doi:10.2134/agronj2017.03.0127.
- Sadeghpour\*, A., Q.M. Ketterings, F. Vermeylen, G.S. Godwin\*, and K.J. Czymmek (2017). Nitrous oxide emissions with nitrogen vs. phosphorus-based manure management of corn. Soil Science Society of America Journal 81:1127–1138. doi:10.2136/sssaj2016.03.0417.
- Maresma\*, A., and Q.M. Ketterings (2017). In-field variability of Illinois soil nitrogen test and loss-on-ignition for nitrogen management. Soil Science Society of America Journal Soil 81:1211–1221. doi:10.2136/sssaj2016.10.0334.
- 15. Tagarakis\*, A.C., and Q.M. Ketterings (2017). In-season estimation of corn yield potential using proximal sensing. Agronomy Journal 109:1323–1330. doi: 10.2134/agronj2016.12.0732.
- 16. McRoberts\*, K.C., D. Parsons, Q.M. Ketterings, T.T. Hai, N.H. Quan, N.X. Ba, C.F. Nicholson, and D.J.R. Cherney (2017). Urea and composted cattle manure affect forage yield and nutritive value in sandy soils of South-Central Vietnam. Grass and Forage Science. doi: 10.1111/gfs.12289.
- 17. Lyons\*, S., Q.M. Ketterings, G. Godwin\*, J. Cherney, and T. Kilcer (2017). Early planting increases growth and nitrogen uptake of winter cereals. Agronomy Journal 109:795–801. doi:10.2134/agronj2016.10.0620.
- McRoberts\*, K.C., C.F. Nicholson, D. Parsons, L.V. Nam, N.X. Ba, Q.M. Ketterings, D.J.R. Cherney (2017). Structure and impact of cattle manure trade in crop-livestock systems of Vietnam. Renewable Agriculture and Food Systems doi:10.1017/S1742170517000072.
- Hussein, M., V.V. Pillai, J.M. Goddard, W.J. Park, K.S. Kothapalli, D.A. Ross, Q.M. Ketterings, J.T. Brenna, M. Milstein, H. Marquis, P.A. Johnson, J.P. Nyrop and V. Selvaraj (2017). Sustainable production of housefly (*Musca domestica*) larvae as a protein-rich feed ingredient by utilizing cattle manure. PLoSONE 12:e0171708. http://dx.doi.org/10.1371/journal.pone.0171708.
- Sadeghpour\*, A., Q.M. Ketterings, G. Godwin\*, and K.J. Czymmek (2017). Shifting from N-based to P-based manure management maintains soil test phosphorus dynamics in a longterm corn and alfalfa rotation. Agronomy for Sustainable Development. 37:8 doi: 10.1007/s13593-017-0416-z.
- Ketterings, Q.M., S. Cela\*, A. Collick, S. Crittenden\*, and K.J. Czymmek (2017). Restructuring the P index to better address P management in New York. Journal of Environmental Quality 46:1372–1379. doi:10.2134/jeq2016.05.0185.
- 22. Crittenden\*, S., Q.M. Ketterings, and K.J. Czymmek (2017). Soil phosphorus saturation ratio sets comparable manure application cutoffs across states differing in agronomic soil test. Soil Science 182: 36-44. doi: 10.1097/SS.000000000000192.
- 23. Veltman, K., C.D. Jones, R. Gaillard, S. Cela\*, L. Chase, B. Duval., R.C. Izaurralde, Q.M. Ketterings, C. Li, M. Matlock, A. Reddy, A. Rotz, W. Salas, P. Vada, and O. Jolliet (2017). Comparison of process-based models to quantify nutrient flows and greenhouse gas emissions associated with milk production. Agriculture, Ecosystems and Environment 237: 31-44. <u>http://dx.doi.org/10.1016/j.agee.2016.12.018</u>.

- 24. Tagarakis\*, A.C., Q.M. Ketterings, S. Lyons\*, and G. Godwin\* (2017). Proximal sensing to estimate yield of brown midrib forage sorghum. Agronomy Journal 109:107–114. doi: 10.2134/agronj2016.07.0414.
- 25. Cela\*, S., Q.M. Ketterings, M., Soberon\*, C. Rasmussen\*, and K.J. Czymmek (2017). Upper Susquehanna watershed and New York State improvements in nitrogen and phosphorus mass balances of dairy farms. Journal of Soil and Water Conservation 27:1-11. doi: 10.2489/jswc.72.1.1.
- Sadeghpour\*, A., Q.M. Ketterings, G.S. Godwin\*, and K.J. Czymmek (2017). Under- or over-application of nitrogen impact corn yield, quality, soil, and environment. Agronomy Journal 109:1-11. doi: 10.2134/agronj2016.06.0355.

2016 (8 articles):

- Sadeghpour\*, A., Q.M. Ketterings, F. Vermeylen, G.S. Godwin\*, and K.J. Czymmek (2016). Soil properties under nitrogen- vs phosphorus-based manure and compost management of corn. Soil Science Society of America Journal 80:1272–1282. doi:10.2136/sssaj2016.03.0086.
- Van Almelo, J., Q.M. Ketterings, and S. Cela\* (2016) Integrating record keeping with whole farm nutrient mass balance: A case study. Journal of Agricultural Science 8: 22-32. DOI: <u>http://dx.doi.org/10.5539/jas.v8n6p22</u>.
- 29. Cela\*, S., Q.M. Ketterings, K.J. Czymmek, J.L. Weld, D.B. Beegle, and P.J.A. Kleinman (2016). Nutrient management planners' feedback on New York and Pennsylvania phosphorus indices. Journal of Soil and Water Conservation 71: 281-288. DOI: 10.2489/jswc.71.4.281.
- Cherney, J.H, Q.M. Ketterings, and D.J. Cherney (2016). Soil contamination of grass biomass hay; measurements and implications. Bioenergy Research 9:773–781. DOI: 10.1007/s12155-016-9725-3.
- 31. Long\*, E., Q.M. Ketterings, D. Russell, F. Vermeylen, and S.D. DeGloria (2016). Assessment of yield monitoring equipment for dry matter and yield of corn silage and alfalfa/grass. Journal of Precision Agriculture 17:546–563. DOI:10.1007/s11119-016-9436-y.
- 32. Long\*, E., and Q.M. Ketterings (2016). Factors of yield resilience under changing weather evidenced by a 14-years record of corn-hay yield in a 1000-cow dairy farm. Agronomy for Sustainable Development 36:16. DOI: 10.1007/s13593-016-0349-y.
- 33. McRoberts\*, K. Q.M. Ketterings, D. Parsons\*, T. Thanh Hai, N. Hai Quan, N. Xuan Ba, C.F. Nicholson and D.J. Cherney (2016). Impact of forage utilization with urea and composted cattle manure on soil fertility in sandy soils of south central Vietnam. International Journal of Agronomy. <u>http://dx.doi.org/10.1155/2016/4709024</u>.
- 34. Sadeghpour\*, A., Q.M. Ketterings, G. Godwin\* and K.J. Czymmek (2016). Nitrogen- vs phosphorus-based manure and compost management of corn. Agronomy Journal 108: 185-195. DOI:10.2134/agronj2015.0218.

2015 (5 articles):

- 35. Cela\*, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon\*, and C.N. Rasmussen\* (2015). Long-term trends of nitrogen and phosphorus mass balances on New York dairy farms. Journal of Dairy Science 98: 7052-7070. <u>http://dx.doi.org/10.3168/jds.2015-9776</u>
- Soberon\*, M., S. Cela\*, Q.M. Ketterings, K.J. Czymmek, and C.N. Rasmussen\* (2015). Changes in nutrient mass balances over time and related drivers for 54 New York dairy farms (2015). Journal of Dairy Science 98: 5313–5329. <u>http://dx.doi.org/10.3168/jds.2014-9236</u>.

- Little\*, N.G., C.L. Mohler, Q.M. Ketterings and A. DiTommaso (2015). Effects of organic nutrient amendments on weed and crop growth. Weed Science 63: 710-722. doi: 10.1614/WS-D-14-00151.1.
- Ketterings Q.M., S.N. Swink\*, S.W. Duiker, K.J. Czymmek, D.B. Beegle, and W.J. Cox (2015). Review and interpretation: integrating cover crops for N management in corn systems on northeastern dairies. Agronomy Journal 107: 1365-1376. doi:10.2134/agronj14.0385.
- Ketterings, Q.M., S. Ort\*, S.N. Swink\*, G. Godwin\*, T. Kilcer, J. Miller, W. Verbeten, and K.J. Czymmek (2015). Winter cereals as double crops in corn rotations on New York dairy farms. Journal of Agricultural Science DOI: 10.5539/jas.v7n2p18.

2014 (4 articles):

- Cela\*, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon\*, and C.N. Rasmussen\* (2014). Characterization of N, P, and K mass balances of dairy farms in New York State. Journal of Dairy Science 97:7614–7632. <u>http://dx.doi.org/10.3168/jds.2014-8467</u>.
- 41. Ketterings, Q.M., S. Gami, R.R. Mathur, and M. Woods (2014). A simple method for estimating effective cation exchange capacity, cation saturation ratios and sulfur across a wide range of soils. Soil Science 179:230-236.
- 42. Caldwell, B., C.L. Mohler, Q.M. Ketterings, and A. DiTommaso (2014). Yields and profitability during and after transition in organic grain cropping systems. Agronomy Journal 106:871-880.
- 43. Ketterings, Q.M. (2014). Extension and knowledge transfer; adaptive management approaches for timely impact. Journal of Agricultural Science, Cambridge. DOI:10.1017/S002185961300066X.

2013 (5 articles):

- 44. Ketterings, Q.M, G.S. Godwin\*, S.N. Swink\*, and K.J. Czymmek (2013). Can manure replace the need for starter nitrogen fertilizer? Agronomy Journal 105:1597–1605.
- 45. Long, E., Q.M. Ketterings and K.J. Czymmek (2013). Survey of cover crop use on New York dairy farms. Crop Management. DOI:10.1094/CM-2013-0019-RS.
- 46. Soberon\*, M.A., Q.M. Ketterings, C.N. Rasmussen\*, and K.J. Czymmek (2013). Whole farm nutrient balance calculator for New York dairy farms. Journal of Natural Resources and Life Science Education (renamed Natural Sciences Education) 42: 57-67.
- 47. Magidow\*, L., A. DiTommaso, Q.M. Ketterings, C.L. Mohler, and L.L. Milbrath (2013). Emergency and performance of two invasive Swallow-worts (*Vincetoxicum* app.) in contrasting soil types and soil pH. Invasive Plant Science and Management 6: 281-191. doi: <u>http://dx.doi.org/10.1614/IPSM-D-12-00073.1</u>
- 48. Ketterings, Q.M., G. Godwin\*, P. Barney, J.R. Lawrence\*, B. Aldrich, T. Kilcer, K.J. Czymmek, and B. Gloy (2013). Shallow mixing of surface soil and liquid dairy manure conserves nitrogen while retaining surface residue. Agronomy for Sustainable Development. 33: 507-517. DOI 10.1007/s13593-013-0141-1.

2012 (6 articles):

49. Ketterings, Q.M., J. Knight\*, P. Ristow\*, G. Swanepoel\*, and K.J. Czymmek (2012). Evaluation of dairy and cash grain farmers' perceptions of the value of manure. Crop Management. doi:10.1094/CM-2012-1024-01-RS.

- 50. Ketterings, Q.M., K.J. Czymmek, D.B. Beegle, L.E. Chase, and C.N. Rasmussen\* (2012). Systematic nutrient (im)balances in dairy farm systems of the Northeast and Mid-Atlantic Regions of the United States. Journal of Agricultural Science. doi:10.5539/jas.v4n11p.
- 51. Ketterings, Q.M., and K.J. Czymmek (2012). Phosphorus index as a phosphorus awareness tool: documented phosphorus use reduction in New York State. Journal of Environmental Quality. 41(6): 1767-1773 (doi:10.2135/jeq2012.0050).
- Sharpley, A., D. Beegle, C. Bolster, L. Good, B. Joern, Q.M. Ketterings, J. Lory, R. Mikkelsen, D. Osmond, and P. Vadas (2012). Phosphorus Indices: Why we need to take stock of how we are doing. Journal of Environmental Quality 41(6): 1711-1719. (doi:10.2135/jeq2012.0040).
- 53. Kleinman, P, K. Saacke Blunk, R. Bryant, L. Saporito, D. Beegle, K. Czymmek, Q.M. Ketterings, T. Sims, J. Shortle, J. McGrath, F. Coale, M. Dubin, D. Dostie, R. Maguire, R. Meinen, A. Allen, K. O'Neill, L. Garber, M. Davis, B. Clark, K. Sellner, and M. Smith (2012). Managing manure for sustainable livestock production in the Chesapeake Bay Watershed. Journal of Soil and Water Conservation. 67(2): 54-61. (doi:10.2489/jswc.67.2.54A).
- 54. Ketterings, Q.M., G. Godwin\*, S. Gami\*, K. Dietzel\*, J. Lawrence, P. Barney, T. Kilcer, M. Stanyard, C. Albers, J.H. Cherney, D. Cherney, K.J. Czymmek (2012). Soil and tissue testing for sulfur management of alfalfa in New York State. Soil Science Society of America Journal 76(1): 298-306. (doi:10.2136/sssaj2010.0437).

2011 (10 articles):

- 55. Ketterings, Q.M., C. Miyamoto\*, R.R. Mathur, K. Dietzel\*, and S. Gami\* (2011). A comparison of soil sulfur extraction methods. Soil Science Society of America Journal 75(4): 1578-1583.
- 56. Ketterings, Q.M., K.J. Czymmek, and S.N. Swink\* (2011). Evaluation methods for a combined research and extension program used to address starter phosphorus fertilizer use for corn in New York. Canadian Journal of Soil Science 91(3): 467-477.
- 57. Haden\*, R.V., J. Xiang, S. Peng, Q.M. Ketterings, P. Hobbs, and J. Duxbury (2011). Ammonia toxicity in aerobic rice: use of soil properties to predict ammonia volatilization following urea application and the adverse effects on germination. European Journal of Soil Science 62(4): 551–559.
- 58. Haden\*, R.V., J. Xiang, S. Peng, B. Bouman, R. Visperas, Q.M. Ketterings, P. Hobbs, and J. Duxbury (2011). Relative effects of ammonia and nitrite on germination and early growth or aerobic rice. Journal of Plant Nutrition & Soil Science 174(2): 292-300.
- Parsons\*, D., Q.M. Ketterings, J.H. Cherney, R.W. Blake, L. Ramirez-Aviles, C.F. Nicholson (2011). Effects of weed control and manure application on nutrient fluxes in the shifting cultivation milpa system of Yucatan. Archives of Agronomy and Soil Science 57(3): 273-292.
- 60. Swink\*, N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek; M.E. Van Amburgh (2011). Nitrogen balances for New York State: Implications for manure and fertilizer management. Journal of Soil and Water Conservation 66(1): 1-17.
- Janzen, H.H., P. Fixen, A.J. Franzluebbers, J. Hattey, R.C. Izaurralde, Q. M. Ketterings, D.A. Lobb, W.H. Schlesinger (2011). Global prospects are rooted in Soil Science. Soil Science Society of America Journal 75(1): 1-8.
- 62. Parsons\*, D., C.F. Nicholson, R.W. Blake, Q.M. Ketterings, L. Ramírez-Aviles, J.H. Cherney, and D.G. Fox (2011). Application of a simulation model for assessing integration of smallholder shifting cultivation and sheep production in Yucatán, Mexico. Agricultural Systems 104(1): 13-19.

- 63. Parsons\*, D, C.F. Nicholson, R.W. Blake, Q.M. Ketterings, L. Ramírez-Aviles, D.G. Fox, L.O. Tedeshi, J.H. Cherney (2010). Development and evaluation of an integrated simulation model for assessing smallholder crop-livestock production in Yucatán, Mexico. Agricultural Systems 104(1): 1-12.
- 64. Maguire, R.O., P.J.A. Kleinman, C. Dell, D.B. Beegle, R.C. Brandt, J.M. McGrath, and Q.M. Ketterings (2011). Manure application technology in reduced tillage and forage systems; a review. Journal of Environmental Quality 40(2): 292-301.

2010 (5 articles):

- 65. Chunyu\*, S., and Q.M. Ketterings (2010). Impact of soil temperature and moisture on Mehlich-3 and Morgan soil test phosphorus. Soil Science 175(10): 511-518.
- 66. Grandt\*, S., Q.M. Ketterings, A.J. Lembo Jr., and F. Vermeylen (2010). In-field spatial variability of soil test phosphorus and implications for agronomic and environmental phosphorus management. Soil Science Society of America Journal 74:1800-1807.
- 67. Cherney, J.H., Q.M. Ketterings. M. Davis, and D.J.R. Cherney (2010). Split application of nitrogen vs. dairy manure on temperate perennial grasses. Forage and Grazinglands Forage and Grazinglands DOI:10.1094/FG-2010-02XX-01-RS.
- Cherney, J.H., Q.M. Ketterings, D.J. Cherney, M.H. Davis. (2010). Timing of semisolid dairy manure application does not affect yield and quality of orchardgrass. Agronomy Journal 102:537-543.
- Turan, M., Q. M. Ketterings, A. Gunes, N. Ataoglu, A.V. Bilgili, and Y. Ming Huang (2010). Boron fertilization of 29ucerne29anean Aridisols improves 29ucerne (*Medicago sativa* L.) yields and quality. Acta Agriculturae Scandinavica, Section B – Plant Soil Science 60:427-436.

2009 (9 articles):

- Medvecky\*, B.A., and Q.M. Ketterings (2009). Incorporation of legumes residues does not increase productivity of intercropped beans on smallholder farms in Trans-Nzoia District, Kenya. Biological Agriculture and Horticulture 26(4): 323-335.
- 71. Parsons\*, D., L. Ramirez-Aviles, J.H. Cherney, Q.M. Ketterings, R.W. Blake, and C.F. Nicholson (2009). Managing maize production in shifting cultivation *milpa* systems in Yucatan, through weed control and manure application. Agriculture, Ecosystems and Environment 133: 123-134.
- 72. Hunter, M., Q.M. Ketterings, J.H. Cherney, P. Barney, T. Kilcer, and G. Godwin\* (2009). Nitrogen needs of teff (*Eragrostis tef* (Zucc. Trotter) managed as forage crop in New York. Forage and Grazinglands doi:10.1094/FG-2009-0612-01-RS.
- 73. Gunes, A., N. Ataoglu, M. Turan, A. Esitken, and Q.M. Ketterings (2009). Effects of phosphate-solubilizing micro-organisms on strawberry yield and nutrient concentrations. Journal of Plant Nutrition and Soil Science DOI:10.1002/jpln.200800121.
- 74. Swink\*, S.N., Q.M. Ketterings, L.E. Chase, and K.J. Czymmek, and J.C. Mekken\* (2009). Past and future phosphorus balances for agricultural cropland in New York State. Journal of Soil and Water Conservation 64(2):120-133.
- 75. Dietzel\*, K., Q.M. Ketterings, and R. Rao (2009). Predictors of lime needs for pH and aluminum management of New York agricultural soils. Soil Science Society of America Journal 74(2): 443-448.

- <sup>76.</sup> Turan, M., F.M., Kiziloglu, and Q.M. Ketterings (2009). Phosphorus management of Lucerne grown on calcareous soil in Turkey. Journal of Plant Nutrition 32: 516-535.
- 77. Lawrence\*, J.R., Q.M. Ketterings, M.G. Goler\*, J.H. Cherney, W.J. Cox and K.J. Czymmek (2009). Illinois Soil Nitrogen Test (ISNT) with organic matter correction for predicting nitrogen responsiveness of corn in rotation. Soil Science Society of America J. 73(1): 303-311.
- 78. Turan, M., A. Dursun, N. Ataoglu, A. Gunes, M. Ekinci, T. Oztas, Q.M. Ketterings, Y. Ming Huang (2009). Yield and chemical composition of Brussels sprout (*Brassica oleracea* L. gemmifera) as affected by boron management. HortScience 44(1):176-182.
- 79. Soldat\*, D., M. Petrovic, and Q.M. Ketterings (2009). The effect of soil phosphorus levels on phosphorus runoff concentrations from turfgrass. Water, Air, and Soil Pollution DOI:10.1007/211270-008-9857-y.

2008 (3 articles):

- 80. Lawrence\*, J.R., Q.M. Ketterings, J.H. Cherney, S.E. Bossard, G.S. Godwin\* (2008). Tillage tools for manure incorporation and N conservation. Soil Science 173: 649-658.
- 81. Lawrence\*, J.R., Q.M. Ketterings and J.H. Cherney (2008). Effect of nitrogen application on yield and quality of first year corn. Agronomy Journal 100: 73-79.
- 82. Angin, I., M. Turan, Q.M. Ketterings, and A. Cakici (2008). Humic acid addition enhances B and Pb phytoextraction by vetiver grass (*Vetiveria zizanioides l. Nash*). Water, Air and Soil Pollution 188: 335-343.

2007 (8 articles):

- 83. Swink\*, S.N., Q.M. Ketterings, W.J. Cox (2007). Nitrogen fertilizer replacement value of soybean for corn. Online. Crop Management DOI:10.1094/CM-2007-1005-01-RV.
- 84. Ketterings, Q.M., J.H. Cherney, G. Godwin\*, T.F. Kilcer, P. Barney, and S. Beer (2007). Nitrogen management of brown midrib sorghum x sudangrass in the Northeastern USA. Agronomy Journal 99: 1345–1351.
- 85. Haden\*, V.R., Q.M. Ketterings, and J.E. Kahabka\* (2007). Factors affecting the change in soil test P levels following manure and fertilizer application. Soil Science Society of American Journal 71: 1225-1232.
- 86. Ketterings, Q.M., E. Frenay\*, J.H. Cherney, K.J. Czymmek, S.D. Klausner, L.E. Chase, Y.H. Schukken (2007). Applying manure to established alfalfa-grass stands. Online. Forage and Grazinglands DOI: 10.1094/FG-2007-0418-01-RV.
- 87. Brock\*, E.H., Q.M. Ketterings, and P.J.A. Kleinman (2007). Measuring and predicting the phosphorus sorption capacity of manure amended soils. Soil Science 172: 266-278.
- 88. Brock\*, E.H., Q.M. Ketterings, and P.J.A. Kleinman (2007). Phosphorus leaching through intact soil cores as influenced by type and duration of manure application. Nutrient Cycling and Agroecosystems 77: 269-281. DOI: 10.1007/s10705-006-9065-3.
- Medvecky\*, B.A, Q.M. Ketterings and E.B. Nelson (2007). Relationships among soilborne bean seedling diseases, *Lablab purpureus* L. and maize stover residue management, bean insect pests, and soil characteristics in Trans Nzoia district, Kenya. Applied Soil Ecology 35: 107-119.
- <sup>90.</sup> Özgül, M, M. Turan, and Q.M. Ketterings (2007). Short- and long-term phosphorus availability in four soil orders under native vegetation in Turkey. Acta Agriculturæ Scandinavica Section B, Soil and Plant Science. DOI: 10.1080/09064710601029695.

2006 (9 articles):

- Ketterings, Q.M., Godwin\*, G., T.F. Kilcer, P. Barney, M. Hunter, J.H. Cherney, and S. Beer (2006). Nitrogen, phosphorus, potassium, magnesium and calcium removal by brown midrib sorghum sudangrass in the Northeastern USA. Journal of Agronomy and Crop Science 192: 408-416.
- 92. Ketterings, Q.M., G.L Albrecht\*, C.N. Rasmussen\*, and K.J. Czymmek (2006). Cornell Cropware: Decision support tool for fertilizer and manure nutrient management planning. Journal of Natural Resources and Life Sciences Education 35: 140-151.
- 93. Klapwyk\*, J.H., Q.M. Ketterings, G.S. Godwin\*, M. Wang\* (2006). Response of the Illinois Soil Nitrogen Test to liquid and composted dairy manure application in a corn agroecosystem. Canadian Journal of Soil Science 86: 655-663.
- 94. Brock, E.H., Q.M. Ketterings, and M. McBride (2006). Copper and zinc accumulation in dairy and poultry amended soils. Soil Science 171: 388-399.
- 95. Medvecky\*, B.A., Q.M. Ketterings, and F. Vermeylen (2006). Bean seedling damage by rootfeeding grubs in Kenya as influenced by planting time, cultivar, and crop residue management. Applied Soil Ecology 34: 240-249.
- 96. Klapwyk\*, J.H., and Q.M. Ketterings (2006). Soil nitrogen tests for predicting if corn will respond to nitrogen fertilizer in New York. Agronomy Journal 98: 675-681.
- 97. Woods\*, M.S., F.S. Rossi, and Q.M. Ketterings (2006). Potassium supply rate as measured by exchange membranes in a calcareous sand. Applied Turfgrass Science DOI:10.1094/ATS-2006-0323-01-RS.
- 98. Albrecht\*, G.L., Q.M. Ketterings, K.J. Czymmek, M. van Amburgh, and D.G. Fox (2006). Whole Farm Nutrient Management: Capstone course on environmental management of dairy farms. J. Natural Resources and Life Science Education 35: 12-23.
- Woods\*, M.S., Q.M. Ketterings, F.S. Rossi and M. Petrovic (2006). Potassium availability indices and turfgrass performance in a calcareous sand putting green. Crop Science 46: 381-389.

2005 (11 articles):

- 100. Sato, S., D. Solomon, C. Hyland\*, Q.M. Ketterings, and J. Lehmann (2005). Phosphorus speciation in manure and manure-amended soils using XANES spectroscopy. Environmental Science and Technology 39: 7485-7491.
- 101. Woods\*, M.S., Q.M. Ketterings, and F.S. Rossi (2005). Effects of potassium application on calcium and magnesium availability in a calcareous sand. International Turfgrass Society Research Journal 10: 1015-1020.
- 102. Lehmann, J., Z. Lan, C. Hyland\*, S. Sato, D. Solomon, and Q.M. Ketterings. Long-term dynamics of phosphorus forms and retention in manure-amended soils (2005). Environmental Science and Technology 39: 6672-6680.
- 103. Burgers, P., Q.M. Ketterings, and D.P. Garrity (2005). Fallow management strategies and issues in Southeast Asia. Agriculture Ecosystems and Environment 110: 1-13.
- 104. Ketterings, Q.M., S.N. Swink\*, G. Godwin\*, K.J. Czymmek, and G.L. Albrecht\* (2005). Maize silage yield and quality response to starter phosphorus fertilizer in high phosphorus soils in New York. J. Food, Agriculture and Environment 3: 360-365.
- 105. Klapwyk\*, J.H., and Q.M. Ketterings (2005). Reducing laboratory variability of the Illinois soil N test with enclosed griddles. Soil Sci. Soc. of America J. 69: 1129-1134.

- 106. Ketterings, Q.M. and M. Flock (2005). Comparison of Bray-1 and Mehlich-3 tests in high phosphorus soils. Soil Science 170: 212-219.
- 107. Woods\*, M.S., Q.M. Ketterings, and F.S. Rossi (2005). Effectiveness of standard soil tests for assessing potassium availability in sand rootzones. Soil Science 170: 110-119.
- 108. Ketterings, Q.M., J. Kahabka\*, and W.S. Reid (2005). Trends in phosphorus fertility of New York agricultural land. Journal of Soil and Water Conservation 59: 10-20.
- 109. Ketterings, Q.M., G. Godwin\*, J.H. Cherney, and T.F. Kilcer (2005). Potassium management for brown midrib sorghum x sudangrass in the Northeast. Journal of Agronomy and Crop Science 191: 41-46.
- <sup>110</sup> Kilcer, T.F., Q.M. Ketterings, J.H. Cherney, P. Cerosaletti and P. Barney (2005). Optimum stand height for forage brown midrib sorghum x sudangrass in Northeastern USA. Journal of Agronomy and Crop Science 191: 35-40.

2004 (2 articles):

- 111. Ketterings, Q.M., J.H. Cherney, T.F. Kilcer, and P. Cerosaletti (2004). Phosphorus removal by sorghum sudangrass in Northeastern USA. Online. Forage and Grazinglands DOI:10.1094/FG-2004-1015-01-RS.
- 112. Cherney, J.H., Q.M. Ketterings, and J.L. Orloski\* (2004). Plant and soil elemental status as influenced by multi-year nitrogen and potassium fertilization. Journal of Plant Nutrition 27: 991-1014.

2003 (1 article):

<sup>113.</sup> Rodenburg, J., A. Stein, M. Van Noordwijk, and Q.M. Ketterings (2003). Spatial variability of soil pH and phosphorus in relation to soil run-off following slash-and-burn land clearing in Sumatra, Indonesia. Soil and Tillage Research 71: 1-14.

2002 (4 articles):

- 114. Ketterings, Q.M., K.J. Czymmek, W.S. Reid and R.F. Wildman (2002). Conversion of modified Morgan and Mehlich-III soil tests to Morgan soil test values. Soil Science 167: 830-837.
- 115. Van Es, H., K.J. Czymmek and Q.M. Ketterings (2002). Management effects of N leaching and guidelines for an N leaching index in New York. Journal of Soil and Water Conservation 57: 499-504.
- 116. Tomich, T.P., H. de Foresta, R. Dennis, Q.M. Ketterings, D. Murdiyarso, C.A. Palm, F. Stolle, Suyanto, and M. van Noordwijk (2002). Carbon offsets for conservation and development in Indonesia? American Journal of Alternative Agriculture 17(2): 125-137.
- 117. Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (2002). Soil phosphorus availability after slash-and-burn fires of different intensities in rubber agroforests in Sumatra, Indonesia. Agriculture, Ecosystems and Environment 92: 37-48.

2001 (1 article):

<sup>118.</sup> Ketterings, Q.M., R. Coe, M. Van Noordwijk, Y. Ambagau'\*, and C.A. Palm (2001). Reducing uncertainty in the use of allometric biomass equations for predicting above ground tree biomass in mixed secondary forests. Forest Ecology and Management 146: 201-211.

2000 (2 articles):

- 119. Ketterings, Q.M. and J.M. Bigham (2000). Soil color as an indicator of slash-and-burn fire severity and soil fertility in Sumatra, Indonesia. Soil Science Society of America Journal 64: 1826-1833.
- 120. Ketterings, Q.M., J.M. Bigham, and V. Laperche (2000). Changes in soil mineralogy and texture caused by slash-and-burn fires in Sumatra, Indonesia. Soil Science Society of America Journal 64: 1108-1117.

1999 (2 articles):

- 121. Ketterings, Q.M., T.T. Wibowo\*, M. Van Noordwijk, and E. Penot (1999). Farmers' perspectives on slash-and-burn as a land clearing method for small-scale rubber producers in Sepunggur, Jambi Province, Sumatra, Indonesia. Forest Ecology and Management 120: 157-169.
- 122. Bohlen, P.J., R.W. Parmelee, M.F. Allen, and Q.M. Ketterings (1999). Differential effects of earthworms on nitrogen cycling from various <sup>15</sup>N-labeled substrates. Soil Science Society of America Journal 63: 882-890.

1997 (1 article):

123. Ketterings, Q.M., J.M. Blair and J.C.Y. Marinissen (1997). Effects of earthworms on soil aggregate stability and C and N storage in a legume cover crop agroecosystem. Soil Biology and Biochemistry 29: 401-408.

#### • Theses/Dissertation

- 1. Ketterings, Q.M. (1999). Fire as a land management tool in Sepunggur, Sumatra, Indonesia. Can farmers do without it? <u>Ph.D. Dissertation</u>, Environmental Science Graduate Program, Ohio State University, USA.
- Ketterings, Q.M. (1992). The effects of earthworm activities on soil structure stability and carbon and nitrogen storage in organic based and conventional agro-ecosystems. <u>M.Sc.</u> <u>Thesis</u> Wageningen Agricultural University, The Netherlands.
- 3. Ketterings, Q.M. (1991). Soil fertility studies in the Tai Region, Cote d'Ivoire. Response of maize to applications of N, P, K, S, Mg and lime. <u>M.Sc. Thesis</u> Wageningen Agricultural University, The Netherlands.

	l			,	
	What's	Extension	Agronomy	Others	Total
	Cropping Up?	Series	Fact sheets		
2019	3		1	2	6
2018	7	1	4	1	13
2017	3	1	4	2	10
2016	8		7	5	20
2015	7		5	4	16
2014	1		4	3	8
2013	5		4	3	12
2012	9		11	2	22
2011	10		9	7	26
2010	6		7 <u>+ 2</u>	3	16 <u>+ 2</u>

#### • Extension publications (\*indicates NMSP staff or student advisees):

2009	5		4	6	15
2008	6	2 + 1	8	1	2+16
2007	5	54	15	5	54 + 25
2006	1	4	11	5	21
2005	5	2	9	6	22
2004	6	31 + 1		2	31 + 9
2003	9	25 + 7		2	25 + 18
2002	6	1		2	9
2001	8	5		1	14
2000					
Total	110	112 + 23	103 <u>+ 2</u>	62	112 + 298 + 2

In *italics* are county-based soil fertility summaries for 1995-2001 or 2002-2006. Underlined are two factsheets written by non-NMSP staff (editing by QMK).

Agronomy Fact Sheets (co-authored):

- # 1: Soil Sampling for Field Crops (6/3/2005)
- # 2: Nitrogen Basics The Nitrogen Cycle (6/3/2005)
- # 3: Pre-Sidedress Nitrate Test (9/20/2005; revised 1/12/2012)
- # 4: Nitrogen Credits from Manure (8/19/2005)
- # 5: Soil pH for Field Crops (11/11/2005)
- # 6: Lime Recommendations (3/4/2006)
- # 7: Liming Materials (7/21/2006)
- # 8: Starter Phosphorus Fertilizer for Corn (10/22/2005)
- # 9: Cornell Cropware (8/18/2005)
- # 10: Phosphorus Index (12/12/2005)
- #11: Nitrogen Leaching Index (2/2/2006)
- # 12: Phosphorus Basics The Phosphorus Cycle (1/16/2006)
- # 13: Phosphorus Runoff (1/16/2006)
- # 14: Brown Midrib Sorghum Sudangrass, Part 1 (11/23/2005, updated 6/30/2007)
- # 15: Phosphorus Soil Testing Methods (9/30/2006)
- # 16: Application of Manure to Established Alfalfa (12/18/2006)
- #17: Nutrient Management for Pastures (6/28/2006)
- #18: Manure Spreader Calibrations (1/19/2007)
- # 19: Soil Management Groups (6/13/2006)
- # 20: Establishment and Management of Switchgrass (12/18/2006)
- # 21: Nitrogen Needs for First Year Corn (12/18/2006)
- # 22: Cation Exchange Capacity (3/2/2007)
- # 23: Estimating CEC from Cornell Soil Test Data (3/2/2007)
- # 24: Teff as Emergency Forage (3/22/2007)
- # 25: Mass Nutrient Balance Software (6/7/2007 revised 8/13/2010)
- # 26: Brown Midrib Sorghum Sudangrass Nitrogen Management (6/30/2007)
- # 27: How Quickly Will Soil Test P Levels Increase? (7/10/2007)
- # 28: Phosphorus Removal by Field Crops (7/21/2007)
- # 29: Soil Texture (8/22/2007)
- # 30: Soybean Nitrogen Credits (7/18/2007)
- # 31: Corn Stalk Nitrate Test (7/21/2007 updated 2/13/2011, 7/21/2011, and 1/12/2012)

- # 32: Zinc (9/10/2007)
- # 33: Nutrient Management Planning (10/15/2007)
- # 34: Sulfur (8/29/2007)
- # 35: Nitrogen Guidelines for Corn (12/3/2007)
- # 36: Illinois Soil Nitrogen Test for Corn (1/17/2008; revised 1/12/2012)
- # 37: Nutrient Management Data Collection (2/5/2008)
- # 38: Manure Sampling, Handling and Analysis (2/5/2008 updated 7/8/2011)
- # 39: Nitrogen Fixation (4/25/2008)
- # 40: Potassium for Corn (6/16/2008)
- # 41: Organic Matter (5/8/2008)
- # 42: Manure Use for Alfalfa-Grass Establishment (9/12/2008)
- # 43: Nitrogen Benefits of Winter Cover Crops (11/26/2008)
- # 44: Nitrogen Fertilizers for Field Crops (8/23/2009)
- # 45: Enhanced Efficiency Nitrogen Sources (8/23/2009)
- # 46: Nitrogen Management of Teff (9/19/2009)
- # 47: Boron (12/18/2009)
- # 48: Buffer pH for Lime Guidelines (1/8/2010)
- # 49: Manganese (4/30/2010)
- # 50: Buckwheat Production: Planting (7/7/2010)
- # 51: Buckwheat Production: Harvesting (7/7/2010)
- # 52: Web Soil Survey (8/26/2010)
- # 53: Manure Cost, Value and Time Management Calculator (8/26/2010)
- # 54: Timing of Lime Applications for Field Crops (9/22/2010)
- # 55: Tissue Testing for Corn, Alfalfa and Soybeans (10/28/2010; currently in review)
- # 56: Winter Triticale Forage (12/17/2010)
- # 57: Subsurface (Tile) Drainage Benefits and Installation Guidance (3/18/2011)
- # 58: Subsurface (Tile) Drainage Best Management Practices (4/20/2011)
- # 59: Magnesium for Field Crops (4/28/2011)
- # 60: Nitrogen Credits from Red Clover as Cover Crop between Small Grains and Corn (4/20/2011)
- # 61: Valuing Manure N, P, and K Applications (7/15/2011)
- # 62: Maximizing Forage Quality in Bunk Silos (9/8/2011)
- # 63: Fine-Tuning Nitrogen Use on Corn (9/8/2011; revised 1/12/2012)
- # 64: Forage Radishes (12/20/2011)
- # 65: Fertility Management of Winter Wheat (12/20/2011)
- # 66: Cornell Sulfur Test for Alfalfa (3/17/2012)
- # 67: Can Manure Replace the Need for Starter N? (5/2/2012 revised 8/31/2013)
- # 68: On-Farm Research (7/9/2012)
- # 69: Adaptive Nutrient Management Process (7/22/2012)
- # 70: Drought and Risk of Nitrate Toxicity in Forages (7/26/2012)
- # 71: Measuring Corn Silage Yield (9/15/2012)
- # 72: Taking a Corn Stalk Nitrate Test Sample after Corn Silage Harvest (11/21/2012)
- # 73: Phosphorus Fertilizers for Field Crops (12/13/2012)
- # 74: Soybean Fertility Management (12/13/2012)
- #75: Field Crop Fertilizer Management (12/13/2012)
- # 76: Manure Use for Soybeans (12/13/2012)
- # 77: Nitrogen for Corn; Management Options (10/2/2013)

- # 78: Adaptive Management of Nitrogen for Corn (10/2/2013)
- # 79: Zone/Strip Tillage (12/19/2013)
- # 80: Urea Fertilizer (12/19/2013)
- # 81: Red Clover for Quality Forage for Dairy (1/11/2014)
- # 82: Harvest and Storage of Malting Barley (12/20/2014)
- # 83: Gypsum for Field Crops in NY (12/20/2014)
- # 84: Crop Vigor Sensing for Variable-Rate N (12/20/2014)
- # 85: Feasible Whole Farm Nutrient Mass Balances (5/18/2015)
- # 86: Muck Soils (12/16/2015)
- # 87: Liquid Manure Injection (12/16/2015)
- # 88: Fall Uptake of Nitrogen by Cereal Cover Crops (12/16/2015)
- # 89: Reference Strips for Variable Nitrogen Rate Application (12/16/2015)
- # 90: Nitrous Oxide Emission from Crop Fields (3/18/2016)
- # 91: The Carbon Cycle and Soil Organic Carbon (7/1/2016)
- # 92: Guidance for Growing BMR Brachytic Dwarf Forage Sorghum (12/8/2016)
- # 93: Cover Crops for Field Crops Systems (12/8/2016)
- # 94: Forage Quality Parameters Explained (12/8/2016)
- # 95: Improving Aggregate Stability (12/8/2016)
- # 96: Acid Whey pH and Nutrient Composition (12/22/2016)
- # 97: Guidance for Land Application of Acid Whey (1/24/2017)
- # 98: Nitrogen Uptake by Corn (12/18/2017)
- # 99: Nitrogen Rate Trials in Corn (12/18/2017)
- #100: Harmful Algal Blooms (1/22/2018)
- #101: Importance of Sulfur for Soybeans (12/15/2018)
- #102: Earthworms in Agroecosystems (12/15/2018)
- #103: Multispectral Active and Passive Sensors in Agriculture (12/15/2018)
- #104: Grain Yield Monitor Calibration (2/15/2018)
- #105: Increase Yield Monitor Data Accuracy and Reduce Time Involved in Data Cleaning (2/4/2019)

Other extension publications:

- 1. Swink, S.N., T. Kharel, D. Kharel, A. Maresma, E. Haas, R. Porter, K.J. Czymmek, and Q.M. Ketterings (2019). Increase yield monitor data accuracy and reduce time involved in data cleaning. What's Cropping Up? 29(1): x-xx.
- Lyons, S. Q.M. Ketterings, G. Godwin, D.J. Cherney, J.H. Cherney, J.J. Meisinger, and T.F. Kilcer (2019). <u>Nitrogen management of brown midrib forage sorghum in New York</u>. What's Cropping Up? 29(1): x-xx.
- 3. Ketterings, Q.M., K.J. Czymmek, S. Gami, and M. Reuter (2019). <u>Stalk nitrate test results</u> for New York corn fields from 2010 through 2018. What's Cropping Up? 29(1): x-xx.
- 4. Ros, M., K.J. Czymmek, and Q.M. Ketterings (2018). Creating nutrient sustainability indicators for dairies nationwide. Cornell Nutrition Conference Proceedings. October 18, 2018. <u>https://ecommons.cornell.edu/handle/1813/59850</u>.
- 5. Godwin, G.S., Q.M. Ketterings, K.J. Czymmek, T. Dumond, and D. Young (2018). <u>Nutrient</u> boom allows for mid-season manure application in corn. What's Cropping Up? 28(3): 52-53.

- Kharel, T., S.N. Swink, C. Youngerman, A. Maresma, K.J. Czymmek, and Q.M. Ketterings (2018). Corn Silage and Grain Yield Monitor Data Cleaning. What's Cropping Up? 28(3): 50-51.
- 7. Lyons, S.E., Q.M. Ketterings, G. Godwin, K.J. Czymmek, S.N. Swink, and T. Kilcer (2018). Soil nitrate at harvest of forage winter cereals is related to yield and nitrogen application at green-up. What's Cropping Up? 28(3):?-??
- 8. Lyons, S.E., Q.M. Ketterings, G. Godwin, J.H. Cherney, K.J. Czymmek, and T. Kilcer (2018). <u>Spring N management is important for Triticale forage performance regardless of fall management</u>. What's Cropping Up? 28(3):?-??
- Kharel, T., S.N. Swink, C. Youngerman, A. Maresma, K.J. Czymmek, Q.M. Ketterings, P. Kyveryga, J. Lory, T.A. Musket, and V. Hubbard (2018). <u>Processing/Cleaning Corn Silage and Grain Yield Monitor Data for Standardized Yield Maps across Farms, Fields, and Years</u>. Cornell University, Nutrient Management Spear Program, Department of Animal Science, Ithaca NY.
- Ketterings, Q.M., K.J. Czymmek, T. Kharel, and S.N. Swink (2018). <u>How Much Do New</u> <u>York Corn Field Really Yield; The Case for Using Yield monitors</u>. What's Cropping Up? 28(1): 1-2.
- 11. Ketterings, Q.M., K.J. Czymmek, S. Gami, and M. Reuter (2018). <u>Stalk nitrate test results</u> for New York corn fields from 2010 through 2017. What's Cropping Up? 28(1): 3-4.
- 12. Ros, M., K.J. Czymmek, and Q.M. Ketterings (2017). <u>Phosphorus and the Environment. (1)</u> <u>Introduction to phosphorus</u>. What's Cropping Up? 27(4): 45-47.
- Sadeghpour, A., S. Hetrick, K.J. Czymmek, G. Godwin, Q.M. Ketterings (2017). <u>How does</u> <u>managing phosphorus with reduced manure rates affect soil nitrate and organic matter?</u> The Manager DairyBusiness and Hollsteinworld. The Manager. April 2017. pp 30-31.
- Lyons, S., Q.M. Ketterings, G. Godwin, J.H. Cherney, K.J. Czymmek, and T. Kilcer (2017). <u>Planting date and N availability impact fall N uptake of triticale</u>. What's Cropping Up? 27(2): 20-22.
- Ketterings, Q.M., K.J. Czymmek, S Gami, G. Godwin and K. Ganoe (2017). <u>Guidelines for</u> <u>Land Application of Acid Whey</u> (2017) Animal Science Bulletin 247. Department of Animal Science, Cornell University, Ithaca NY.
- 16. Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2017). <u>Impact of manure</u> injection on alfalfa and grass hay stands. What's Cropping Up? 27(1): 7-8.
- Ketterings, Q.M., K.J. Czymmek, S. Gami, M. Reuter, and M. Rutzke (2017). <u>Stalk nitrate test results for New York corn fields from 2010 through 2016</u>. What's Cropping Up? 27(1): 5-6.
- Lawrence, J., Q.M. Ketterings, G. Godwin, K.J. Czymmek, and R.R. Mathur (2016). Using the corn stalk nitrate test under New York growing conditions. Crops and Soils Magazine. 6-7. doi:10.2134/cs2016.49.0502.
- 19. Ketterings, Q.M., E. Hong, G. Godwin, S. Gami, and K.J. Czymmek (2016). Taking a corn stalk nitrate test sample after corn silage harvest. Crops and Soils Magazine. 8-10. doi:10.2134/cs2016.49.0502.
- 20. Sadeghpour, A., S. Hetrick, K.J. Czymmek, G. Godwin and Q.M. Ketterings (2016). Managing soil test phosphorus in corn with manure and compost. What's Cropping Up? 26(5): 86-87.

- 21. Sadeghpour, A., S. Hetrick, K.J. Czymmek, G. Godwin and Q.M. Ketterings (2016). Impacts of manure and compost management on soil organic matter and nitrate dynamics. What's Cropping Up? 26(5): 88-89.
- 22. Sadeghpour, A., K.J. Czymmek, and Q.M. Ketterings (2016). Nitrous oxide emissions in corn are related to nitrogen inputs. DairyBusiness&HolsteinWorld. The Manager: Research Focus. pp 30-31.
- 23. Ketterings, Q.M., S. Cela, K.J. Czymmek and S. Crittenden (2016). What is the nutrient balance of your dairy farm? What's Cropping Up? 26(3): 43-45.
- 24. Van Almelo, J., Q.M. Ketterings, and S. Cela. (2016). <u>Integrating record keeping with whole</u> <u>farm nutrient mass balance; A case study.</u> What's Cropping Up? 26(3): 46-49.
- 25. Long, E., Q.M. Ketterings, M. Hauser, and W. DeGolyer (2016). <u>Whole farm corn and hay</u> <u>yield variability; a dairy farm case study.</u> What's Cropping Up? 26(3): 50-52.
- 26. Tang, Z, Q.M. Ketterings, K.J. Czymmek, S.N. Swink, and P. Cerosaletti (2016). Estimating fall N uptake by winter cereals seeded as cover or double crops after corn silage harvest. What's Cropping Up? 26(2): 20-22.
- 27. Sadeghpour, A., K.J. Czymmek, Q.M. Ketterings (2016). <u>Sidedressing saved money and N</u> <u>in 2015.</u> Eastern DairyBusiness. The Manager. 8(2): 38-39.
- 28. Sadeghpour, A., K.J. Czymmek, Q.M. Ketterings (2016). <u>Value of manure lingers long after</u> <u>application</u>. Eastern DairyBusiness. The Manager. 8(2): 37-38.
- 29. Ketterings, Q.M., K.J. Czymmek. S. Gami, and M. Reuter (2016). Stalk nitrate test results for New York corn fields from 2007 through 2015. What's Cropping Up? 26(1): 8.
- Tagarakis, A., I. Cornell, T. Pardoe, J. Cawley, M. Hunter, M. Stanyard, K. Czymmek and Q.M. Ketterings (2016). <u>Proximal sensing for on-the-go variable rate N application in corn.</u> What's Cropping Up? 26(1): 9-12.
- 31. Czymmek, K.J., L. Geohring, Q.M. Ketterings, P. Wright, T. Walter, G. Albrecht, J. Lendrum and A. Eaton (2015). <u>Revised winter and wet weather manure spreading guidelines to reduce</u> <u>water contamination risk.</u> Cornell University Animal Science Publication Series No. 245, Ithaca NY. 8 pages.
- 32. Hanchar, J.J., Q.M. Ketterings, T. Kilcer, J. Miller, K. O'Neil, M. Hunter, B. Verbeten, S.N. Swink, and K.J. Czymmek (2015). <u>Double cropping winter cereals for forage following corn silage: cost of production and expected changes in profit for New York dairy farms.</u> What's Cropping Up? 25(4): 39-41.
- Soberon, M., S. Cela, Q.M. Ketterings, C. Rasmussen, and K.J. Czymmek (2015). <u>Change in nutrient mass balances over time for 54 New York dairy farms</u>. What's Cropping Up? 25(3): 22-24.
- 34. Cela, S., Q.M. Ketterings, K.J. Czymmek. M. Soberon, and C. Rasmussen (2015). <u>Trends in nutrient mass balances on four New York dairy farms.</u> What's Cropping Up? 25(3): 25-27.
- Ketterings, Q.M., S. Ort, S.N. Swink, G. Godwin, T. Kilcer, J. Miller, B. Verbeten and K.J. Czymmek (2015). <u>Winter cereals as double crops in corn rotations on New York dairy farms</u>. What's Cropping Up? 25(3): 31-33.
- 36. Cela, S. Q.M. Ketterings, K.J. Czymmek, M. Soberon, and C. Rasmussen (2015). <u>Feasible</u> whole farm nutrient mass balances for New York dairy farms. What's Cropping Up? 25(2).
- 37. Soberon, M. Q.M. Ketterings, K.J. Czymmek, S. Cela, C. Rasmussen (2015). <u>Whole farm</u> <u>nutrient mass balance calculator for New York dairy farms.</u> What's Cropping Up? 25(2).
- 38. Ketterings, Q.M. (2015). <u>Integrating cover crops for N management in corn systems on</u> <u>northeastern dairies.</u> Crops and Soils 48: 4: 18-19. doi:10.2134/cs2015-48-4-6.

- Czymmek, K.J., and Q.M. Ketterings (2015). <u>Taking care of (manure) business</u> Strive to do the best possible job every time manure is applied. Eastern DairyBusiness. The Manager. 7(1): 16.
- Czymmek, K.J., A. Tagarakis, and Q.M. Ketterings (2015). <u>Optical sensors for corn silage</u> production – Sensors provide a way to check crop status and evaluate if more N is needed. Eastern DairyBusiness. The Manager. 7(1): 20-21.
- 41. Ketterings, Q.M., K.J. Czymmek. S. Gami, and M. Reuter (2015). Stalk nitrate test results for New York corn fields from 2007 through 2014. What's Cropping Up? 25(1):4.
- 42. Cela, S. Q.M. Ketterings, K.J. Czymmek, M. Soberon, and C. Rasmussen (2014). <u>Whole</u> <u>farm nutrient balance benchmarks for New York dairies</u>. Cornell Nutrition Conference Proceedings. Syracuse NY, October 21, 2014.
- 43. Ort, S.B., Q.M. Ketterings, S.N. Swink, G. Godwin, S. Gami, and K. Czymmek (2014). Spring carbon and nitrogen pools of wheat and cereal rye following corn silage. What's Cropping Up? 23(3): 3-4.
- 44. Ort, S., Q.M. Ketterings and K.J. Czymmek (2014). Nitrogen rate studies of winter cereals. Eastern DairyBusiness. The Manager. 6(2): 19.
- 45. Ketterings, Q.M. and K.J. Czymmek (2014). 2013 Corn and nitrogen. Eastern DairyBusiness. The Manager. 6(2): 18-19.
- 46. Ketterings, Q.M., J. Williard, S. Gami, and K.J. Czymmek (2013). Enhanced efficiency fertilizers; Laboratory study. What's Cropping Up? 23(2): 13-15.
- Ort, S.B., M. Stanyard, S.N. Swink, Q.M. Ketterings, G. Godwin, S. Gami, K. Ganoe, and K. Czymmek (2013). Fall carbon and nitrogen uptake of various cover crop mixtures following small grains; fall 2010 and 2011 data. What's Cropping Up? 23(2): 7-9.
- Ort, S.B., Q.M. Ketterings, K.J. Czymmek, G.S. Godwin, S.N. Swink and S.K. Gami (2013). Carbon and nitrogen uptake of cereal cover crops following corn silage. What's Cropping Up? 23(2): 5-6.
- 49. Ketterings, Q.M., and K.J. Czymmek (2013). Corn as a luxury consumer of N? Really? Eastern DairyBusiness; The Manager. 5(2): 19.
- 50. Ketterings, Q.M., T. Kilcer, S. Ort and K.J. Czymmek (2013). Double cropping winter cereals yields triple bottom line. Eastern DairyBusiness; The Manager. 5(2): 15-16.
- 51. Chase, L.E., Q.M. Ketterings, and K.J. Czymmek (2013) Corn silage and nitrates in drought conditions: 2012 post mortem analysis. Eastern DairyBusiness; The Manager. 5(2): 20.
- 52. Ketterings, Q.M., G. Godwin, W. DeGolyer, and K. J. Czymmek (2013). Manure injection rate study at Table Rock farm. What's Cropping Up? 23(1): 12-16.
- 53. Long, E., K. Van Slyke, Q. M. Ketterings, G. Godwin, and K.J. Czymmek (2013). Triticale as a cover and double crop on a New York dairy. What's Cropping Up? 23(1): 3-5.
- 54. Long, E., Q.M. Ketterings, and K.J. Czymmek (2012). Survey of Cover Crop Use on New York Dairy Farms. What's Cropping Up? 22(4): 17-19.
- 55. Kilcer, T., Ort, S., Q.M. Ketterings, and K.J. Czymmek (2012). Winter-Forage Small Grains to Boost Feed Supply: Not Just a Cover Crop Anymore! What's Cropping Up? 22(4): 1-2.
- 56. Knight, J., Q.M. Ketterings, K.J. Czymmek, and R. Wildman (2012). Phosphorus saturation versus the New York P index? Impact on manure and fertilizer management in New York State. What's Cropping Up? 22(3): 9-11.
- 57. Ketterings, Q.M., and K.J. Czymmek (2012). P index survey: what caused impressive improvement in the NYS P Balance? What's Cropping Up? 22(3):12-15.

- 58. Ketterings, Q.M., G. Godwin, W. DeGolyer, and K.J. Czymmek (2012). Trial results for manure injection at Table Rock Farm. What's Cropping Up? 22(2): 17-22.
- 59. Ketterings, Q.M., G. Godwin, S. Gami, K. Dietzel, J. Cherney, and K.J. Czymmek (2012). Sulfur for alfalfa in New York State. What's Cropping Up? 22(2): 12-16.
- 60. Ketterings, Q.M., and K.J. Czymmek (2012). Farm-level tools refine nitrogen management. Eastern DairyBusiness; The Manager 4(2): 26-27.
- 61. Czymmek, K.J., and Q.M. Ketterings (2012). Managing soils for better crops. Eastern DairyBusiness; The Manager 4(2): 28.
- 62. Ketterings, Q.M., G. Godwin, C.L. Mohler, B. Caldwell, and K.J. Czymmek (2012). Impact of clover incorporation on ammonium, nitrate, and ISNT-N over time; 4-year summary. What's Cropping Up? 22(1): 14-18.
- Ketterings, Q.M., G. Godwin, S.N. Swink, J. Foster, E. Hong, K.J. Czymmek, C. Albers, P. Barney, B. Boerman, S. Canner, P. Cerosaletti, A. Gabriel, M. Hunter, T. Kilcer, J. Lawrence, E. Young, and A. Wright (2012). Can manure replace the need for starter nitrogen fertilizer? 3-year Summary. What's Cropping Up? 22(1): 8-12.
- 64. Knight, J., P. Ristow, G. Swanepoel, K. Czymmek and Q.M. Ketterings (2012). Dairy and cash grain farmer perceptions of the value of manure. What's Cropping Up? 22(1): 3-5.
- 65. Ketterings, Q.M., G. Godwin, J. Cherney, and K. Czymmek (2011). Effect of manure, compost and potassium application on alfalfa yield, potassium content, and soil test potassium in Aurora, NY. What's Cropping Up? 21(4): 8-12.
- 66. Ketterings, Q.M., G. Godwin, J. Cherney, and K. Czymmek (2011). Comparison of tissue and whole plant potassium for alfalfa. What's Cropping Up? 21(4): 13-15.
- 67. Ristow, P.L., S. Moss, Q.M. Ketterings, K.J. Czymmek (2011). Understanding manure nutrient variability. What's Cropping Up? 21(4): 19-23.
- 68. Ketterings, Q.M., K.J. Czymmek, P. Ristow, C. Rasmussen, and S. Swink (2011). State, regional and farm-scale nutrient balances: tools for enhanced efficiency of whole farm nutrient use. 73<sup>rd</sup> Cornell Nutrition Conference for Feed Manufacturers October 18-20, 2011. Syracuse, NY. Proceedings pages 180-189.
- 69. Ketterings, Q.M., E. Hong, G. Godwin, and K. Czymmek (2011). Variability of corn stalk nitrate test results as impacted by variety (BMR versus conventional). What's Cropping Up? 21(3): 11-14.
- 70. Ketterings, Q.M., G. Godwin, and K. Czymmek (2011). Effect of timing of nitrogen application on corn stalk nitrate test (CSNT) results. What's Cropping Up? 21(4): 7-10.
- 71. Ketterings, Q.M., J. Kingston, S. McIlvennie, E. Long, G. Godwin, S. Gami, M. Stanyard, and K. J. Czymmek (2011). Cover crop carbon and nitrogen content: Fall of 2010 sampling. What's Cropping Up? 21(3): 1-4.
- 72. Maguire, R., D. Beegle, J. McGrath, and Q.M. Ketterings (2011). <u>Manure injection in no-till</u> <u>and pasture systems</u>. Extension Publication. Mid Atlantic Water Program.
- 73. Ketterings, Q.M., G. Godwin, C.L. Mohler, B. Caldwell, and K.J. Czymmek (2011). Impact of clover incorporation and ammonium nitrate sidedressing on Illinois soil nitrogen test dynamics over time. 3-Year Summary. What's Cropping Up? 21(2): 1-4.
- 74. Caldwell, B, C.L. Mohler, Q.M. Ketterings and A. DiTommaso (2011). Yield and profitability during and after transition in the Cornell organic grain cropping systems experiment. What's Cropping Up? 21(2): 7-11.

- 75. Swink, S.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, M.E. Van Amburgh (2011). Nitrogen balances for New York State: Implications for manure and fertilizer management. What's Cropping Up? 21(2): 20-23.
- 76. Ketterings, Q.M., G. Godwin, S.N. Swink, J. Foster, E. Hong, K.J. Czymmek, A. Wright, M. Hunter, J. Lawrence, S. Canner, C. Albers, A. Gabriel, E. Young, T. Kilcer and P. Barney (2011). Can manure replace the need for starter N fertilizer? What's Cropping Up? 20(1): 14-17.
- 77. Czymmek, K.J., and Q.M. Ketterings (2011). Shallow manure incorporation works. Eastern DairyBusiness 3(3): 20.
- 78. Czymmek, K.J., Q.M. Ketterings, and J. Cherney (2011). Soil may supply adequate K. Eastern DairyBusiness 3(2): 22-23.
- 79. Ketterings, Q.M., K.J. Czymmek, and J. Cherney (2011). Rethink added sulfur for alfalfa. Eastern DairyBusiness 3(2): 28-29.
- 80. Ketterings, Q.M., and K.J. Czymmek (2011). Manure injection grows corn silage yields. Eastern DairyBusiness 3(2): 30-31.
- Czymmek, K.J., L. Geohring, J. Lendrum, P. Wright, G. Albrecht, B. Brower, and Q.M. Ketterings (2011). Manure management guidelines for limestone bedrock/karst areas of Genesee County, New York: Practices for risk reduction. Animal Science Publication Series No. 240.
- 82. Czymmek, K.J, Q.M. Ketterings, L.E. Chase, and L. Goehring (2010). <u>NY Phosphorus Index</u> <u>may not be perfect, but has served state well</u>. Chesapeake Bay Journal; Forum. November 2010 issue.
- 83. Swink, S.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, M.E. Van Amburgh (2010). Nitrogen balances for the New York Upper Susquehanna River Watershed: Implications for manure and fertilizer management. What's Cropping Up? 20(4): 7-10.
- 84. Wharton, S., Q.M. Ketterings, K. Orloski, E. Hong, G. Godwin, and K. Czymmek (2010). Timing effects on late season corn stalk nitrate test. What's Cropping Up? 20(3): 12-14.
- 85. Grandt, S., Q.M. Ketterings, A. Lembo, F. Vermeylen, and K. Czymmek (2010). In-field spatial variability of soil test phosphorus and implications for agronomic and environmental phosphorus management. What's Cropping Up? 20(3): 8-9.
- Place, A., Q.M. Ketterings, G. Godwin, J. Lawrence, B. Aldrich, P. Barney, and T. Kilcer (2010). Shallow incorporation of manure minimizes soil disturbance and conserves nitrogen. What's Cropping Up? 20(3): 3-5.
- 87. Hong, E., Q.M Ketterings, G. Godwin, S. Gami, and S. Wharton (2010). Effect of sampling height and length on corn stalk nitrate test results. What's Cropping Up? 20(2): 9-11.
- 88. Czymmek, K.J., and Q.M. Ketterings (2010). Troubleshooting 2009 corn crop nitrogen fertilization practices. NEDPA Proceedings 2010: 107-110.
- 89. Godwin, G., Q.M. Ketterings, T. Kilcer and K.J. Czymmek (2010). Impact of nitrogen fertilizer source on corn yield and quality. What's Cropping Up? 20(1): 5-7.
- 90. Czymmek, K.J., and Q.M. Ketterings (2010). Managing potash in a dairy rotation. Eastern DairyBusiness 2(2): 12-13.
- 91. Ketterings, Q.M., J. Lawrence, G. Godwin, N. Glazier, P. Barney, and K.J. Czymmek (2009). Evaluation of ISNT-based nitrogen management for multi-year corn sites. What's Cropping Up? 19(3): 10-11.

- 92. Godwin, G., Q.M. Ketterings. C.L. Mohler, B. Caldwell, and K.J. Czymmek (2009). Impact of clover incorporation and ammonium nitrate sidedressing on ammonium, nitrate, and Illinois Soil Nitrogen Test dynamics over time. What's Cropping Up? 19(3): 12-15.
- 93. Cox, W., P. Atkins, and Q.M. Ketterings (2009). Nitrogen sidedress rates on corn following soybeans. What's Cropping Up? 19(2): 6.
- 94. Swink\*, S.N. Q.M. Ketterings, K.J. Czymmek, L.E. Chase, and J. Mekken\* (2009). Upper Susquehanna River Watershed cropland P balances. What's Cropping Up 19(2): 1-3.
- Place\*, A., Q.M. Ketterings, G. Godwin, K.J. Czymmek, S. Bossard, P. Barney, J. Lawrence, B. Aldrich, T. Kilcer (2009). Comparing manure incorporation methods in reduced till systems. What's Cropping Up 19(2): 4-5.
- 96. Czymmek, K.J., and Q.M. Ketterings (2009). Can you replace starter N with manure? Eastern DairyBusiness 1(2): 19.
- 97. Ketterings, Q.M., J.H. Cherney, and K.J. Czymmek (2009). 10 tips to manage manure on alfalfa-grass fields. Eastern DairyBusiness 1(2): 20 (+23).
- 98. Ketterings, Q.M., and K.J. Czymmek (2009). Getting a good read on P. Eastern DairyBusiness 1(2): 21 (+23).
- 99. Czymmek, K.J., Q.M. Ketterings, and J.H. Cherney (2009). Potassium management makes good sense. Eastern DairyBusiness 1(2): 22-23.
- 100.Czymmek, K. and Q.M. Ketterings (2009). A one-two punch for corn N management. The Manager. Eastern DairyBusiness 1(1): 22-23.
- 101.Swink, S., Q.M. Ketterings, K. Czymmek and L. Chase (2009). Dairies improve P management. The Manager. Eastern Dairybusiness 1(1): 20-21.
- 102.Bruulsema, T. and Q.M. Ketterings (2008). Best management for fertilizers on Northeastern dairy farms. IPNI. 7 pages.
- 103.Ketterings, Q.M., S. Swink\*, S. Duiker, K.J. Czymmek, D. Beegle, and W. Cox (2008). Nitrogen benefits of winter cover crops. Agronomy Fact Sheet 43. What's Cropping Up? 18(6): 8-9.
- 104.Ketterings, Q.M, J.H. Cherney, K.J. Czymmek, E. Frenay\*, S.D. Klausner, L.E. Chase and Y.H. Schukken (2008). New bulletin: manure use for alfalfa-grass production. What's Cropping Up? 18(5): 7-8.
- 105.Swink\*, S., Q.M. Ketterings, K.J. Czymmek, and L.E. Chase (2008). Proactive agricultural and environmental management by New York dairy farmers greatly reduced cropland P balances. What's Cropping Up? 18(5): 1-4.
- 106.Cox, W., P. Atkins, and Q.M. Ketterings (2008). Topdress N rate studies on soft white winter wheat in 2007 and 2008. What's Cropping Up? 18(4): 6-7.
- 107.Ketterings, Q.M., J.H. Cherney, K.J. Czymmek, E. Frenay\*, S.D. Klausner, L.E. Chase, and Y.H. Schukken (2008). Manure use for alfalfa-grass production. Department of Animal Science Mimeo 231/Department of Crop and Soil Sciences Extension Series E08-3. Cornell University. 43 pages.
- 108.Lawrence\*, J.R., Q.M. Ketterings, and K.J. Czymmek (2008). Illinois Soil N Test (ISNT) useful tool for NYS corn producers. What's Cropping Up? 18(3): 4-5.
- 109.Cox, W., Q.M. Ketterings, W.S. Reid and K.J. Czymmek (2008). Spring N management on winter wheat in New York? What's Cropping Up? 18(1): 12-14.
- 110.Rao, R., C.P. Mazza, J. Ameroso, Q.M. Ketterings, and H. Krol\* (2008). New York City Soil Sample Survey (2002-2006). CSS Extension Bulletin E08-2. 55 pages.

- 111.Rao, R., R. Tindell, Q.M. Ketterings, and H. Krol\* (2008). Erie County Soil Test Summary (2002-2006). CSS Extension Bulletin E08-1. 28 pages.
- 112.Lawrence\*, J. Q.M. Ketterings, S. Bossard, K. Czymmek (2007). Manure N conservation with chisel plow versus Aerway incorporation. What's Cropping Up? 17(4): 1-3.
- 113.Rao, R., J.J. Schell, Q.M. Ketterings, and H. Krol\* (2007). Schoharie County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-55. 22 pages.
- 114.Rao, R., R. Tuthill, Q.M. Ketterings, and H. Krol\* (2007). Nassau County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-54. 14 pages.
- 115.Rao, R., S. Beebe, Q.M. Ketterings, and H. Krol\* (2007). Saratoga County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-53. 29 pages.
- 116.Rao, R., D. Sloman, Q.M. Ketterings, and H. Krol\* (2007). Otsego County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-52. 29 pages.
- 117.Rao, R., B. Armata, Q.M. Ketterings, and H. Krol\* (2007). Herkimer County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-51. 24 pages.
- 118.Rao, R., S. Place, R. Hargrave, Q.M. Ketterings, and H. Krol\* (2007). Chenango County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-50. 20 pages.
- 119.Rao, R., C. Stewart, Q.M. Ketterings, and H. Krol\* (2007). Montgomery County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-49. 20 pages.
- 120.Rao, R., C. Stewart, Q.M. Ketterings, and H. Krol\* (2007). Fulton County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-48. 20 pages.
- 121.Rao, R., J. Walsh, Q.M. Ketterings, and H. Krol\* (2007). Sullivan County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-47. 35 pages.
- 122.Rao, R., D. Moyer, Q.M. Ketterings, and H. Krol\* (2007). Suffolk County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-46. 34 pages.
- 123.Rao, R., D. Olsen, Q.M. Ketterings, and H. Krol\* (2007). Putnam County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-45. 21 pages.
- 124.Rao, R., P. Trader, Q.M. Ketterings, and H. Krol\* (2007). Rockland County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-44. 21 pages.
- 125.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Wayne County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-43. 35 pages.
- 126.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Orleans County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-42. 35 pages.
- 127.Rao, R., J. Degni, Q.M. Ketterings, and H. Krol\* (2007). Tompkins County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-41. 34 pages.
- 128.Rao, R., J. Degni, Q.M. Ketterings, and H. Krol\* (2007). Tioga County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-40. 30 pages.
- 129.Rao, R., J. Degni, Q.M. Ketterings, and H. Krol\* (2007). Cortland County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-39. 31 pages.
- 130.Rao, R., J. Degni, Q.M. Ketterings, and H. Krol\* (2007). Broome County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-38. 30 pages.
- 131.Rao, R., C. Kyle, Q.M. Ketterings, and H. Krol\* (2007). Onondaga County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-37. 35 pages.
- 132.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Niagara County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-36. 32 pages.
- 133.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Monroe County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-35. 34 pages.

- 134.Rao, R., B. Aldrich, Q.M. Ketterings, and H. Krol\* (2007). Cayuga County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-34. 34 pages.
- 135.Rao, R., M. Bessire, Q.M. Ketterings, and H. Krol\* (2007). Greene County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-33. 31 pages.
- 136.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Yates County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-32. 34 pages.
- 137.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Genesee County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-31. 33 pages.
- 138.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Ontario County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-30. 35 pages.
- 139.Rao, R., N. Herendeen, Q.M. Ketterings, and H. Krol\* (2007). Livingston County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-29. 34 pages.
- 140.Rao, R., K. Green, Q.M. Ketterings, and H. Krol\* (2007). Oswego County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-28. 33 pages.
- 141.Rao, R., S.D. Mallozzi, Q.M. Ketterings, and H. Krol\* (2007). Dutchess County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-27. 34 pages.
- 142.Rao, R., M. Fargione, Q.M. Ketterings, and H. Krol\* (2007). Ulster County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-26. 34 pages.
- 143.Haden, R., Q.M. Ketterings, J. Kahabka, and K.J. Czymmek (2007). How quickly will soil test P levels increase? What's Cropping Up? 17(3): 3-4.
- 144.Rao, R., K. Evans, Q.M. Ketterings, and H. Krol\* (2007). Madison County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-25. 34 pages.
- 145.Rao, R., C. Logue, Q.M. Ketterings, and H. Krol\* (2007). Schenectady County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-24. 19 pages.
- 146.Rao, R., A. Gabriel, Q.M. Ketterings, and H. Krol\* (2007). Washington County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-23. 33 pages.
- 147.Rao, R., B. Tillapaugh, Q.M. Ketterings, and H. Krol\* (2007). Wyoming County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-22. 35 pages
- 148.Rao, R., L. Hulle, Q.M. Ketterings, and H. Krol\* (2007). Orange County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-21. 34 pages.
- 149.Rao, R., M. Dennis, Q.M. Ketterings, and H. Krol\* (2007). Seneca County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-20. 32 pages.
- 150.Rao, R., D. Dewing, Q.M. Ketterings, and H. Krol\* (2007). Delaware County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-19. 35 pages.
- 151.Rao, R., T. Kilcer, Q.M. Ketterings, and H. Krol\* (2007). Rensselaer County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-18. 35 pages.
- 152.Rao, R., T. Gallagher, Q.M. Ketterings, and H. Krol\* (2007). Albany County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-17. 34 pages.
- 153.Rao, R., S. Hadcock, Q.M. Ketterings, and H. Krol\* (2007). Columbia County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-16. 35 pages.
- 154.Rao, R., J.G. Lee, G.G. Giordano, Q.M. Ketterings, and H. Krol\* (2007). Westchester County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-15. 19 pages.
- 155.Rao, R., J. Miller, Q.M. Ketterings, and H. Krol\* (2007). Oneida County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-14. 36 pages.
- 156.Rao, R., D. Sprague, Q.M. Ketterings, and H. Krol\* (2007). Cattaraugus County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-12. 33 pages.

- 157.Rao, R., D. Sprague, Q.M. Ketterings, and H. Krol\* (2007). Chautauqua County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-11. 34 pages.
- 158.Rao, R., D. Sprague, Q.M. Ketterings, and H. Krol\* (2007). Allegany County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-10. 33 pages.
- 159.Rao, R., B Chedzoy, C. Albers, E. Dalrymple, Q.M. Ketterings, and H. Krol\* (2007). Schuyler County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-9. 32 pages.
- 160.Rao, R., C. Albers, Q.M. Ketterings, and H. Krol\* (2007). Steuben County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-8. 34 pages.
- 161.Rao, R., J. Grace, C. Albers, M. Watts, Q.M. Ketterings, and H. Krol\*\* (2007). Chemung County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-7. 32 pages.
- 162.Rao, R. A., Deming, Q.M. Ketterings, and H. Krol\* (2007). Essex County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-6. 34 pages.
- 163.Rao, R., M. Hunter, Q.M. Ketterings, and H. Krol\* (2007). Jefferson County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-5. 36 pages.
- 164.Rao, R. A. Ivy, Q.M. Ketterings, and H. Krol\* (2007). Clinton County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-4. 33 pages.
- 165.Rao, R., C. Tillinghast, Q.M. Ketterings, and H. Krol\* (2007). Franklin County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-3. 32 pages.
- 166.Rao, R., P. Barney, Q.M. Ketterings, and H. Krol\* (2007). St. Lawrence County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-2. 35 pages.
- 167.Rao, R., J. Lawrence\*, S. Place\*, Q.M. Ketterings, and H. Krol\* (2007). Lewis County Soil Test Summary (2002-2006). CSS Extension Bulletin E07-1. 34 pages.
- 168.Lawrence\*, J., J.H. Cherney, P. Barney, and Q.M. Ketterings (2007). Switchgrass management in New York State. What's Cropping Up? 17(2): 2-3.
- 169.Ketterings, Q.M., and K.J. Czymmek (2007). New York corn producers make a difference! Phosphorus fertilizer imports 2003-2005 reduced by 26.7 million lbs of P<sub>2</sub>O<sub>5</sub>. What's Cropping Up? 17(2): 4.
- 170.Lawrence\*, J., Q.M. Ketterings, K.J. Czymmek, and G. Godwin\* (2007). Nitrogen savings for first year corn. What's Cropping Up? 17(1): 1-2.
- 171.Ketterings, Q.M., and K.J. Czymmek (2007). Are manure and established alfalfa a good mix? The Manager. Northeast DairyBusiness 9(2): 14-15.
- 172.Lawrence\*, J., Q.M. Ketterings, K.J. Czymmek, and G. Godwin (2007). Save on nitrogen costs. The Manager. Northeast DairyBusiness 9(2): 16-17.
- 173.Lawrence\*, J. Q.M. Ketterings, K.J. Czymmek (2007). What's next for the Corn N Project? The Manager. Northeast DairyBusiness 9(2): 19.
- 174.Ketterings, Q.M., K.J. Czymmek, S. Swink\* (2007). The state of New York's phosphorus balance. The Manager. Northeast DairyBusiness 9(2): 20-21.
- 175.Czymmek, K.J., and Q.M. Ketterings (2007). Attend to lime. The Manager. Northeast DairyBusiness 9(2): 26.
- 176.Ketterings, Q.M., J. Lawrence\*, K.J. Czymmek and G. Godwin\* (2006). Do we need additional nitrogen for corn? In: Field Crop Dealer Meetings, Department of Crop and Soil Sciences Extension Series No E06-4, October 24-27, 2006. p 5.
- 177.Ketterings, Q.M., E. Frenay\*, J.H. Cherney, K.J. Czymmek, S. Klausner, L.E. Chase, and Y.H. Schukken (2006). Application of manure to established stands of alfalfa and alfalfagrass (2006). In: Field Crop Dealer Meetings, Department of Crop and Soil Sciences Extension Series No E06-4, October 24-27, 2006. p 515.

- 178.Ketterings, Q.M., C. Rasmussen\*, and K.J. Czymmek (2006). Integrated Nutrient Management; Crossing Discipline boundaries for improved farm sustainability. Contribute to Danny Fox. 2006 Cornell Nutrition Conference for feed manufacturers. Syracuse, NY. October 24-26, 2006. pp 39-44.
- 179.Mekken\*, J.C., S.N. Swink\*, and Q.M Ketterings (2006). Statewide and country-based phosphorus balances for New York State. Department of Crop and Soil Sciences Extension Series E06-03. Cornell University, Ithaca, NY. 126 pages.
- 180.Ketterings, Q.M., W.S. Reid, and K.J. Czymmek (2006). Lime guidelines for field crops in New York. Department of Crop and Soil Sciences Extension Series E06-02. Cornell University, Ithaca, NY. 35 pages.
- 181.Ketterings, Q.M., J. Klapwyk\*, and K.J. Czymmek (2006). Nitrogen management tools for corn. The Manager. Northeast Dairy Business 8(4): 34-35.
- 182.Ketterings, Q.M., and K.J. Czymmek (2006). Which fields need extra N? The Manager. Northeast Dairy Business 8(4): 24 and 33.
- 183.Czymmek, K.J., Q.M. Ketterings, C. Rasmussen\* and L. Chase (2006). Striking the right balance. The Manager. Northeast Dairy Business 8(4): 21-22.
- 184.Ketterings, Q.M., G. Godwin\*, T.F. Kilcer, P. Barney, M. Hunter, J.C. Cherney, and S. Beer (2006). Nitrogen, phosphorus, and potassium removal by brown midrib sorghum sudangrass. What's Cropping Up? 16(1): 4-6.
- 185.Rasmussen\*, C.N., Q.M. Ketterings, G. Albrecht\*, L. Chase, and K.J. Czymmek (2006). Mass nutrient balances – a management tool for New York dairy and livestock farms. *In* Silage for Dairy Farms; Growing, Harvesting, Storing, and Feeding. NRAES Conference. Harrisburg, PA, January 23-25. Pages 396- 414.
- 186.Rasmussen\*, C.N., Q.M. Ketterings, J. Mekken\*, K.J. Czymmek and L.E. Chase (2005). Statewide and whole farm phosphorus balances- tools to help with long-term nutrient planning on dairy and livestock farms. What's Cropping Up? 15(6): 7-9.
- 187.Klapwyk\*, J., Q.M. Ketterings, G. Godwin\*, N. Galens\*, and D. Wang\* (2005). Illinois soil N test (aminosugar N test) for determining if corn needs additional N – update on 3 years of NY research. In: Field Crop Dealer Meetings, Department of Crop and Soil Sciences Extension Series No E05-1, October 25-28, 2005. pages 13-14.
- 188.Ketterings, Q.M., C. Rasmussen, J. Mekken\*, and K. Czymmek (2005). Statewide, Countybased and whole farm nutrient balances. Tools to help with long-term nutrient planning. In: Field Crop Dealer Meetings, Department of Crop and Soil Sciences Extension Series No E05-1, October 25-28, 2005. pages 19-21.
- 189.Brock\*, E., Q.M. Ketterings, and M. McBride (2005). Copper and zinc accumulation in manured soils. What's Cropping Up? 15(5): 5-7.
- 190.Ketterings, Q.M., G. Godwin\*, T.F. Kilcer, P. Barney, M. Hunter, J.H. Cherney, and S. Beer (2005). Nitrogen management for brown midrib sorghum sudangrass: Results of six NY field studies in 2004. What's Cropping Up? 15(4): 4-7.
- 191.Ketterings, Q.M., and K.J. Czymmek (2005). What you need to know about N. Nutrient Management. April 2005. The Manager. Northeast Dairy Business 7(4): 32-33.
- 192.Czymmek, K.J., and Q.M. Ketterings (2005). Get the most out of the PSNT. Nutrient Management. April 2005. The Manager. Northeast Dairy Business 7(4): 32-33.
- 193.Ketterings, Q.M., and K.J. Czymmek (2005). How much P is enough? Nutrient Management. April 2005. The Manager. Northeast Dairy Business 7(4): 37 and 39.

- 194.Czymmek, K.J., Q.M. Ketterings, J. Ten Eyck, and T. Horvath (2005). <u>The New York CAFO</u> <u>Program: successfully connecting science, policy, regulation, and implementation</u>. New York Water Environmental Association Inc. Clearwaters Magazine 35(1): 27-28.
- 195.Czymmek, K.J., Q.M. Ketterings, and G.L. Albrecht\* (2005). Dairy producers: is it time to take a look at your phosphorus fertilizer rates for corn? Small Farms Quarterly Spring 2005 (April 11, 2005). Page 8.
- 196.Czymmek, K.J., D. Beegle, and Q.M. Ketterings (2005). Implications of agronomic and environmental considerations in land application of manure in dairy farm systems of the Northeast and Mid-Atlantic Regions of the United States. NRAES Conference. March 15-17, 2005. Dairy Manure Management: Treatment, Handling and Community Relations. NRAES-176. pp 1-10. Also appeared in Ag Nutrient Management 2(2)(2006): 6-12.
- 197.Czymmek, K.J., L.D. Geohring, Q.M. Ketterings, P. Wright, and A. Eaton (2005). Supplemental manure spreading guidelines to reduce water contamination risk during adverse weather conditions. What's Cropping Up? 15(3): 1-3.
- 198.Ketterings, Q.M., J.H. Cherney, T.F. Kilcer, and P. Cerosaletti (2005). Phosphorus removal by brown midrib sorghum x sudangrass. What's Cropping Up? 15(1): 5-7.
- 199.Ketterings, Q.M., G. Albrecht\*, M. Hunter, P. Carey, S.N. Swink\*, and K.J. Czymmek (2004). Whole farm corn starter phosphorus fertilizer imports. What's Cropping Up? 14(6): 3-5.
- 200.Ketterings, Q.M., J.E. Kahabka\*, and W.S. Reid (2004). The phosphorus fertility status of New York agricultural land. What's Cropping Up? 14(5): 3-6. (Also appeared as abstract in Field Crop Dealer Meetings, October 26-29, 2004. CSS Extension Series No. E04-33, October 2004).
- 201.Ketterings, Q.M., S. Swink\*, G. Godwin\*, K.J. Czymmek, and G. Albrecht\* (2004). New York Starter Phosphorus Project: Does starter P fertilizer impact silage quality? What's Cropping Up? 14(5): 1-2.
- 202.Ketterings, Q.M., H. Krol\*, W.S. Reid, and D. Olsen (2004). Soil sample survey of Putman County. CSS Extension Bulletin E04-32. 8 pages.
- 203.Ketterings, Q.M., H. Krol\*, W.S. Reid, and C.A. Logue (2004). Soil sample survey of Schenectady County. CSS Extension Bulletin E04-31. 37 pages.
- 204.Ketterings, Q.M., H. Krol\*, W.S. Reid, and P. Carey (2004). Soil sample survey of Sullivan County. CSS Extension Bulletin E04-30. 38 pages.
- 205.Ketterings, Q.M., H. Krol\*, W.S. Reid, and M.J. Fargione (2004). Soil sample survey of Ulster County. CSS Extension Bulletin E04-29. 40 pages.
- 206.Ketterings, Q.M., H. Krol\*, and W.S. Reid (2004). Soil sample survey of Saratoga County. CSS Extension Bulletin E04-28. 38 pages.
- 207.Ketterings, Q.M., H. Krol\*, W.S. Reid, J.G. Lee, and G.G. Giordano (2004). Soil sample survey of Westchester County. CSS Extension Bulletin E04-27. 23 pages.
- 208.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J.B. Siecska (2004). Soil sample survey of Suffolk County. CSS Extension Bulletin E04-26. 37 pages.
- 209.Ketterings, Q.M., H. Krol\*, W.S. Reid, and L. Hulle (2004). Soil samples survey of Orange County. CSS Extension Bulletin E04-25. 39 pages.
- 210.Ketterings, Q.M., H. Krol\*, W.S. Reid, and S.D. Mallozzi (2004). Soil samples survey of Dutchess County. CSS Extension Bulletin E04-24. 39 pages.
- 211.Ketterings, Q.M., H. Krol\*, and W.S. Reid (2004). Greene Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-23. 36 pages.

- 212.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Van der Heide (2004). Oswego Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-22. 37 pages.
- 213.Ketterings, Q.M., G. Godwin\*, J.H. Cherney, S. Beer and T.F. Kilcer (2004). Potassium management for brown mid rib sorghum sudangrass. Results of two years of studies at the Mt Pleasant Research Farm. What's Cropping Up? 14(3): 4-5.
- 214.Ketterings, Q.M., H. Krol\*, C.P. Mazza, and W.S. Reid (2004). New York City Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-21. 71 pages.
- 215.Ketterings, Q.M., H. Krol\*, and W.S. Reid (2004). Nassau Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-20. 21 pages.
- 216.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Degni (2004). Tompkins Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-19. 37 pages.
- 217.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Degni (2004). Tioga Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-18. 37 pages.
- 218.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Degni (2004). Cortland Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-17. 36 pages.
- 219.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Degni (2004). Chemung Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-16. 37 pages.
- 220.Ketterings, Q.M., H. Krol\*, W.S. Reid, and J. Degni (2004). Schuyler Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-15. 37 pages.
- 221.Ketterings, Q.M., G. Godwin\*, J.H. Cherney, S. Beer and T.F. Kilcer (2004). Nitrogen management for brown mid rib sorghum sudangrass. Results of two years of studies at the Mt Pleasant Research Farm. What's Cropping Up? 14(2): 5-6.
- 222.Ketterings, Q.M., H. Krol\*, W.S. Reid, and S.E. Hadcock (2004). Columbia Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-14. 38 pages.
- 223.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2004). Wayne Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-13. 40 pages.
- 224.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Ganoe (2004). Fulton Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-12. 36 pages.
- 225.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Ganoe (2004). Herkimer Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-11. 38 pages.
- 226.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Ganoe (2004). Montgomery Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-10. 37 pages.
- 227.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Ganoe (2004). Otsego Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-9. 37 pages.
- 228.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Ganoe (2004). Chenango Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-8. 37 pages.
- 229.Ketterings, Q.M., H. Krol\*\*, and W.S. Reid (2004). Rockland Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-7. 21 pages.
- 230.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2004). Ontario Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-6. 40 pages.
- 231.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2004). Yates Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-5. 40 pages.

- 232.Ketterings, Q.M., S. Swink\*, G. Godwin\*, K.J. Czymmek, A. Durow\*, and G.L Albrecht\* (2004). New York Starter Phosphorus Project Results of the 2003 growing season. What's Cropping Up? 14(1): 1-3.
- 233.Czymmek, K.J, and Q.M. Ketterings (2004). Seven tips to manage N for top-yielding corn. Northeast DairyBusiness 6:26-27.
- 234.Ketterings, Q.M., H. Krol\*, W.S. Reid and M. Dennis (2004). Seneca County Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-4. 38 pages.
- 235.Ketterings, Q.M., H. Krol\*, W.S. Reid, N. Herendeen and R.N. King (2004). Monroe Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-3. 40 pages.
- 236.Ketterings, Q.M., H. Krol\*, and W.S. Reid (2004). Broome Soil Sample Survey 1995-2001. CSS Extension Bulletin E04-2. 37 pages.
- 237. Whole farm nutrient management on dairy farms to improve profitability and reduce environmental impacts (2004). Department of Crop and Soil Sciences Research Series R04-1 and University of Wisconsin Extension Publication A3794. Report on collaboration among Cornell University, University of Wisconsin-Madison, and USDA-ARS Dairy Forage Research Center. April 2004.
- 238.Ketterings, Q.M., H. Krol\*, W.S. Reid, and L. Fields (2003). Schoharie Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-33. 38 pages.
- 239.Ketterings, Q.M., H. Krol\*, W.S. Reid, and T. Gallagher (2003). Albany Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-31. 39 pages.
- 240.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2003). Orleans Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-30. 39 pages.
- 241.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2003). Niagara Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-29. 40 pages.
- 242.Ketterings, Q.M., H. Krol\*, and W.S. Reid (2003). Erie Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-28. 38 pages.
- 243.Ketterings, Q.M., G.L. Albrecht\*, and K.J. Czymmek (2003). Whole farm crop and manure nutrient management. Help! In: Proceedings 2003 Cornell Nutrition Conference. Department of Animal Science, Cornell University. October 21-23, 2003. Pages 245-250.
- 244.Ketterings, Q.M., H. Krol\*, W.S. Reid, and D. Sprague (2003). Cattaraugus Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-27. 39 pages.
- 245.Ketterings, Q.M., H. Krol\*, W.S. Reid, N. Herendeen, and D. Thorp (2003). Livingston Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-26. 40 pages.
- 246.Czymmek, K.J., Q.M. Ketterings and H. van Es (2003). You can reduce the risks of leaching. Northeast DairyBusiness 5(10): 22-23.
- 247.Ketterings, Q.M., K.J. Czymmek, S. Swink\*, G. Albrecht\*, G. Godwin\*, and A. Durow\* (2003). New York State Starter Phosphorus Project. In: Field Crop Dealer Meetings. Department of Crop and Soil Sciences Extension Series E03-25. Pages 11-12.
- 248.Kilcer, T.F., Q.M. Ketterings, P. Cerosaletti, J.H. Cherney, P. Barney, M. Hunter, G. Godwin\* and G. Albrecht\* (2003). Brown midrib sorghum-sudangrass in New York State. In: Field Crop Dealer Meetings. Department of Crop and Soil Sciences Extension Series E03-25. Pages 19-20.
- 249.Ketterings, Q.M., H. Krol\*, W.S. Reid, and N. Herendeen (2003). Genesee Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-24. 39 pages.
- 250.Ketterings, Q.M., H. Krol\*, W.S. Reid, and A. Gabriel (2003). Washington Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-23. 38 pages.

- 251.Ketterings, Q.M., H. Krol\*, W.S. Reid, and B. Tillapaugh (2003). Wyoming Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-22. 40 pages.
- 252.Ketterings, Q.M., H. Krol\*, W.S. Reid, and T. Kilcer (2003). Rensselaer Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-21. 38 pages.
- 253.Kilcer, T.F., Q.M. Ketterings, P. Cerosaletti, P. Barney and J.H. Cherney (2003). Cutting height management for brown mid rib sorghum sudangrass. What's Cropping Up? 13(4): 4-6.
- 254.Czymmek, K.J., Q.M. Ketterings, L.D. Geohring, and G.L. Albrecht\* (2003). New release: New York phosphorus index: user's manual and documentation. What's Cropping Up? 13(4): 7.
- 255.Ketterings, Q.M., H. Krol\*, W.S. Reid, and A.E. Staehr (2003). Onondaga Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-20. 39 pages.
- 256.Ketterings, Q.M., H. Krol\*, W.S. Reid, and D. Sprague (2003). Allegany Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-19. 38 pages.
- 257.Ketterings, Q.M., H. Krol\*, W.S. Reid, and K. Evans (2003). Madison Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-18. 39 pages.
- 258.Ketterings, Q.M., H. Krol\*, W.S. Reid, and Jeff Miller (2003). Oneida Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-17. 38 pages.
- 259.Ketterings, Q.M., S.D. Klausner, and K.J. Czymmek (2003). Nitrogen guidelines for field crops in New York. Second Release. Department of Crop and Soil Sciences Extension Series E03-16. Cornell University, Ithaca, NY. 70 pages.
- 260.Ketterings, Q.M., K.J. Czymmek, and S.D. Klausner (2003). Phosphorus guidelines for field crops in New York. Second Release. Department of Crop and Soil Sciences Extension Series E03-15. Cornell University, Ithaca, NY. 35 pages.
- 261.Ketterings, Q.M., S.D. Klausner, and K.J. Czymmek (2003). Potassium guidelines for field crops in New York. Second Release. Department of Crop and Soil Sciences Extension Series E03-14. Cornell University, Ithaca, NY. 41 pages.
- 262.Czymmek, K.J., Q.M. Ketterings, L.D. Geohring and G.L. Albrecht\* (2003). New York State Phosphorus Runoff Index. CSS Extension Bulletin E03-13. 72 pages.
- 263.Ketterings, Q.M., H. Krol\*, W.S. Reid, and D. Sprague (2003). Chautauqua Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-12. 37 pages.
- 264.Ketterings, Q.M., H. Krol\*, W.S. Reid, and C. Tillinghast (2003). Franklin Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-11. 37 pages.
- 265.Cox, B., and Q.M. Ketterings (2003). Soybeans: Add the inoculum but forget the starter N. What's Cropping Up? 13(3): 5.
- 266.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, K.J. Czymmek and V. Durbal (2003). Coming attraction: Cornell Cropware v2.0. What's Cropping Up? 13(3): 6.
- 267.Ketterings, Q.M., K.J. Czymmek, G.L. Albrecht\*, C. Rasmussen\*, and B. Dybwad\* (2003). Nutrient Management Spear Program Website. Access to nutrient management research and extension for NY. What's Cropping Up? 13(3): 7.
- 268.Ketterings, Q.M., H. Krol\*, W.S. Reid, and D. Dewing (2003). Delaware Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-10. 39 pages.
- 269.Ketterings, Q.M., H. Krol\*, W.S. Reid, and A.E. Spaugh (2003). Clinton Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-9. 37 pages.
- 270.Ketterings, Q.M., H. Krol\*, W.S. Reid, and A. Deming (2003). Essex Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-8. 37 pages.

- 271.Ketterings, Q.M., T.W. Katsvairo\*, J.H. Cherney, and T.K. Kilcer (2003). Nitrogen management for brown mid rib sorghum sudangrass: Results of the 2002 Mt Pleasant trial. What's Cropping Up? 13(2): 1-3.
- 272.Ketterings, Q.M., T.W. Katsvairo\*, J.H. Cherney, and T.K. Kilcer (2003). Potassium management for brown mid rib sorghum sudangrass: Results of the 2002 Mt Pleasant trial. What's Cropping Up? 13(2): 6-7.
- 273.Cox, B., and Q.M. Ketterings (2003). N sidedress rates on corn following soybeans. What's Cropping Up? 13(2): 8-9.
- 274.Ketterings, Q.M., H. Krol\*, W.S. Reid, and C. Albers (2003). Steuben Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-7. 37 pages.
- 275.Ketterings, Q.M., H. Krol\*, W.S. Reid, and S. Bossard (2003). Cayuga Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-6. 37 pages.
- 276.Ketterings, Q.M., H. Krol\*, W.S. Reid, and M. Hunter (2003). Lewis Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-5. 37 pages.
- 277.Ketterings, Q.M., H. Krol\*, W.S. Reid, and M. Hunter (2003). Jefferson Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-4. 37 pages.
- 278.Ketterings, Q.M., H. Krol\*, W.S. Reid, and P. Barney (2003). St Lawrence Soil Sample Survey 1995-2001. CSS Extension Bulletin E03-3. 37 pages.
- 279.Czymmek, K.J., Q.M. Ketterings, H van Es, and S.D. DeGloria (2003). The New York Nitrate Leaching Index. CSS Extension Bulletin E03-2. 34 pages.
- 280.Ketterings, Q.M., T. Byron\*, G. Godwin\* and K.J. Czymmek (2003). Phosphorus Starter Project Results of the 2002 growing season. What's Cropping Up? 13(1): 4-6.
- 281.Kilcer, T.F., Q.M. Ketterings, T. Katsvairo\*, and J.H. Cherney (2002). Nitrogen management for sorghum sudangrass. How to optimize N uptake efficiency? What's Cropping Up? 12 (5): 6-9.
- 282.Ketterings, Q.M. and K.J. Czymmek (2002). Phosphorus soil testing and nutrient management planning in New York. What's Cropping Up? 12 (4): 1-3.
- 283.ASB consortium (2002). <u>ASB Policybrief 04: Reducing smoke pollution from tropical fires</u>. 4 pp.
- 284.Cox, B., Q.M. Ketterings, and H. van Es (2002). How much N fertilizer on corn following soybeans or wheat/clover? What's Cropping Up? 12 (3): 5.
- 285.Cerosaletti, P., Q.M. Ketterings, and T.F. Kilcer (2002). 2001 Delaware County BMR sorghum sudangrass trial. What's Cropping Up? 12(3): 1-3.
- 286.Rasmussen\*, C.N., Q.M. Ketterings, and G. Albrecht\* (2002). Cornell Cropware version 1.0, a *cu*NMPS software program. In: Developing and applying next generation tools for farm and watershed nutrient management to protect water quality. Cornell Animal Science Department Mimeo 220 and Crop and Soil Science Extension Series E02-1. pp 13-29.
- 287.Cox, B. and Q.M. Ketterings (2002). Do soybeans respond to starter fertilizer and seed inoculum? What's Cropping Up? 12 (2): 1.
- 288.Byron\*, T.M., Q.M. Ketterings, and K.J. Czymmek (2002). Phosphorus starter demonstration project. Results of the 2001 growing season. What's Cropping Up? 12 (2): 4-5.
- 289.Van Noordwijk, M., and Q.M. Ketterings (2002). Tebas-bakar dan manfaat perbakerannya. Seri: Wanatani Karet 14.
- 290.Czymmek, K.J., Q.M. Ketterings, and H. van Es (2001). The New York Nitrate Leaching Index. What's Cropping Up? Volume 11(5): 1-3.

- 291.Rasmussen\*, C.N., G. Albrecht\*, K.J. Czymmek, and Q.M. Ketterings (2001). Cornell Cropware. What's Cropping Up? Volume 11(5): 7.
- 292.Ketterings, Q.M., T. Byron\*, and K.J. Czymmek (2001). P starter demonstration/research project 2001. In: Field Crop Dealer Meetings. Department of Crop and Soil Sciences Extension Series E01-7. Pages 3-6.
- 293.Ketterings, Q.M., B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman (2001). Do Modified Morgan and Mehlich-III P have a Morgan P equivalent? In: Field Crop Dealer Meetings. Department of Crop and Soil Sciences Extension Series E01-7. Pages 15-19.
- 294.Ketterings, Q.M., S.D. Klausner, and K.J. Czymmek (2001). Potassium recommendations for field crops in New York. Department of Crop and Soil Sciences Extension Series E01-6. Cornell University, Ithaca, NY. 39 pages.
- 295.Ketterings, Q.M., K.J. Czymmek, and S.D. Klausner (2001). Phosphorus recommendations for field crops in New York. Department of Crop and Soil Sciences Extension Series E01-5. Cornell University, Ithaca, NY. 32 pages.
- 296.Ketterings, Q.M., S.D. Klausner, and K.J. Czymmek (2001). Nitrogen recommendations for field crops in New York. Department of Crop and Soil Sciences Extension Series E01-4. Cornell University, Ithaca, NY. 45 pages.
- 297.Czymmek, K.J., Q.M. Ketterings, and L.D. Geohring (2001). Phosphorus and Agriculture VIII: The New Phosphorus Index for New York State. What's Cropping Up? 11(4): 1-3.
- 298.Czymmek, K.J., L.D. Geohring, and Q.M. Ketterings (2001). What's the risk of phosphorus runoff from your fields? Northeast DairyBusiness 3(8): 26-28.
- 299.Ketterings, Q.M., B.C. Bellows, K.J. Czymmek, and W.S. Reid (2001). Conversion Equations Part 2: Do Mehlich-III K, Ca, and Mg have Morgan equivalents? What's Cropping Up? 11(4): 4-5.
- 300.Cox, B., and Q.M. Ketterings (2001). Soybean fertilization. What's Cropping Up? 11(3): 1.
- 301.Ketterings, Q.M., B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman (2001). Do modified Morgan and Mehlich-III P have a Morgan equivalent? What's Cropping Up? 11(3): 2-3.
- 302.Czymmek, K., J. Degni and Q.M. Ketterings (2001). Phosphorus starter demonstration project. Results of the 2000 Growing Season. What's Cropping Up? 11(3): 4-6.
- 303.Cox, B., Q.M. Ketterings, and H. van Es (2001). How much N fertilizer on corn following soybeans or wheat/clover? What's Cropping Up? 11 (2): 6-7.
- **Poster presentations** (\*indicates NMSP staff or student advisees):

	Scientific Meetings	Extension Meetings	Total
2019			
2018	6		6
2017	4	1	5
2016	9		9
2015	4		4
2014	7		7
2013	5		5
2012	3		3
2011	2		2
2010	16		16

2009	6	1	7
2008	7		7
2007	3		3
2006	8	1	9
2005	5		5
2004	6	2	8
2003	6	4	10
2002	2	2	4
2001	4	2	6
2000	1		1
1999	3		3
1998	1	1	2
1997		1	1
1995	1		1
1993	1		1
Total	110	15	125

- 1. Kharel, T.P., A. Maresma, K.J. Czymmek and Q.M. Ketterings (2018). Documenting Spatial and Temporal Variability in Corn Silage Yield in Farmers' Fields. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- 2. Ros, M.B.H., K.J. Czymmek and Q.M. Ketterings (2018. Linking the New York Phosphorus Index with Whole-Farm Phosphorus Balances. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- Maresma Galindo, A., R. Breslauer, T. Kharel, P. Berenguer, A.C. Tagarakis, K.J. Czymmek and Q.M. Ketterings (2018). Yield and CSNT Relationship to Better Explain Nitrogen Management in Corn Fields. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- Haines, Q., S. Matott, J. Ringland, A. Maresma, T. Kharel, K.J. Czymmek, Q.M. Ketterings, E. Oware (2018). Using principal component regression to predict soil nitrogen supply potential from electromagnetic induction. American Geophysical Union Annual Meeting, Washington DC, December 10-14, 2018.
- Ketterings, Q.M., M. Ros, S. Crittenden, and K.J. Czymmek (2018). Whole-farm nutrient mass balances for outcome-based adaptive nutrient management on dairy farms. Our Farms, Our Future Conference, St Louis, Missouri. April 3-4, 2018. ~1000 attendees for the conference.
- 6. Ros, M.B.G., S.J. Crittenden, S. Cela, K.J. Czymmek and Q.M. Ketterings (2018). Setting targets for the phosphorus index using whole-farm phosphorus balances. Sustainable Dairy Systems 2018, 3rd Annual Cornell Dairy Center of Excellence Symposium presented in partnership with The David R. Atkinson Center for a Sustainable Future. Ithaca NY. February 22, 2018. Short presentation and poster.
- Lyons, S.E., Q.M. Ketterings, Z. Tang, S. Ort, G. Godwin, K.J. Czymmek, S.N. Swink and T.F. Kilcer (2017). Geographic, soil, and management characteristics impact winter cereal performance. First Annual Meeting of the Northeast Region Cover Crop Council. Ithaca, NY. November 8, 2017. Poster.

- Lyons, S.E., Q.M. Ketterings, Z. Tang, S. Ort, G. Godwin, K.J. Czymmek, S.N. Swink and T.F. Kilcer (2017). <u>Geographic, Soil, and Management Characteristics Impact Winter Cereal</u> <u>Performance.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- Maresma Galindo, A., P. Berenguer, R. Breslauer, A.C. Tagarakis and Q.M. Ketterings (2017). <u>Corn Stalk Nitrate Test Spatial Variability</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. Poster and abstract.
- Kharel, T.P., S.N. Swink, A. Maresma Galindo, C. Youngerman, K.J. Czymmek and Q.M. Ketterings (2017). <u>Yield Monitor Data Cleaning Effect on Corn Grain and Silage Yield</u> <u>Determination</u>. ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- 11. Ros, M.B.G., S.J. Crittenden, S. Cela, K.J. Czymmek and Q.M. Ketterings (2017). <u>Setting</u> <u>Targets for the Phosphorus Index Using Whole-Farm Phosphorus Balances</u>. ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- 12. Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2016). <u>Impact of Manure Management on Soil Test Phosphorus Dynamics in a Long-Term Corn-Alfalfa Rotation.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- Tagarakis, A.C., Q.M. Ketterings and S.E. Lyons (2016). <u>In-Season Prediction of Forage</u> <u>Sorghum Yield Using Proximal Sensing</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- Liu, C., A.C. Tagarakis, S.E. Lyons, G. Godwin, and Q.M. Ketterings (2016). <u>Proximal Sensing Technology to Predict the Quality of Forage Sorghum for Optimal Time of Harvest</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- Wayman, S., M.R. Ryan, and Q.M. Ketterings (2016). Weed Seed Diversity in a Long-Term Fertility Management Trial. Abstract and Oral Presentation (359). Weed Science Society of America Annual Meeting, February 8-11, San Juan, Puerto Rico.
- Breslauer, R.S., P. Berenguer, and Q.M. Ketterings (2016). Where to sample? An analysis of whole farm corn stalk nitrate test (CSNT) result variability and how farmers choose fields to sample. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 17. Tang, Z., S.E. Lyons, and Q.M. Ketterings (2016). Determination of optimum nitrogen rates for winter cereals using yield response curves. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- Swink, S.N., Q.M. Ketterings, K.J. Czymmek, G.S. Godwin, K. O'Neil, M. Hunter, E. Bever, M. Contessa, J. Lawrence, D. Morse, T. McClelland, P.M. Barney, and A.C. Tagarakis (2016). Given higher yield potentials, is it time to change our nitrogen recommendations for corn? The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 19. Gami, S., Q.M. Ketterings, K.J. Czymmek, and G.S. Godwin (2016). Evaluation of the impact of acid whey on soil pH and liquid manure pH. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 20. Crittenden, S., S. Cela, Q.M. Ketterings, and K.J. Czymmek (2016). Developing a new P index for New York with stakeholder input. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.

- Berenguer, P., Q.M. Ketterings, R. Breslauer, A.C. Tagarakis, and A. Maresma (2015). <u>Corn</u> <u>Stalk Nitrate Test (CSNT)</u>; <u>Developing a Sampling Protocol Based on within-Field Spatial</u> <u>Variability and Yield Zones</u>. Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by R. Breslauer.
- 22. Cela, S., Q.M. Ketterings, K.J. Czymmek and S.J. Crittenden (2015). <u>A New and More Intuitive Structure for the New York Phosphorus Index.</u> Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by S.J. Crittenden.
- Lefever, A., A. Sadeghpour, and Q.M. Ketterings (2015). Effect of Nitrogen- vs Phosphorus-Based Manure and Compost Management on Soil Quality. Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Lefever.
- 24. Ketterings, Q.M., R.R. Mathur, S.K. Gami, and M. Woods (2015). Estimating effective cation exchange capacity, cation saturation ratios, and sulfur across several soils types. International Soil and Plant Analyses Council Meeting, Kona, Hawaii. January 29, 2015.
- 25. Long, E.A., Q.M. Ketterings, D. Russell, and F. Vermeylen (2014). Assessment of Yield Monitoring Equipment in Determining Moisture and Yield of Forage Crops. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 224-2.
- Berenguer, P., A.C. Tagarakis, E. Mudrak, R. Breslauer, E.A. Long, and Q.M. Ketterings (2014). Spatial Variability in Yield and Corn Stalk Nitrate Test Results. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 224-3.
- 27. Long, E.A., and Q.M. Ketterings (2014). Whole Farm and Field Corn and Alfalfa Yield Variability on a CAFO Dairy Farm. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 260-9. Poster Presentation and Abstract.
- 28. Cela S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2014). Characterization of Nutrient Mass Balances on New York Dairy Farms. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 260-10. Poster Presentation and Abstract.
- 29. Cela S., Q.M. Ketterings and K.J. Czymmek (2014). Ten Years of the New York Phosphorus Index: Nutrient Management Planners' Feedback. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 262-4. Poster Presentation and Abstract.
- Sadeghpour A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Soil Health under Nitrogen- vs Phosphorus-Based Manure and Compost Management of Corn. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 322-10. Poster Presentation and Abstract.
- Sadeghpour A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Impact of N Application Rate on Nitrogen Use Efficiency and pH in a Fertilizer-Management Continuous Corn Silage System. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 445-13. Poster Presentation and Abstract.
- 32. McRoberts\*, K.C., Q.M. Ketterings, B.M. Benson, S. Ort\*, and G. Godwin\* (2013). Estimating Accumulated Biomass and Nitrogen Pools in Over-Wintered Cover Crops: Digital Image Analysis Versus Manual Sampling. Poster. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.
- 33. Long\*, E.A. and Q.M. Ketterings (2013). Yield Records for Adaptive Management: A Case Study Approach. Poster. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.

- Long\*, E.A., Q.M. Ketterings, S.K. Gami\*, and G. Godwin\* (2013) Nitrogen dynamics of cover crops in corn rotations in New York State. Abstract #78339. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- 35. Ketterings, Q.M., E. Hong\*, K. Orloski\*, S.K. Gami\*, G. Godwin\* and R.R. Mathur (2013). Late season corn stalk nitrate test: sampling and laboratory analyses. Abstract #78261. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- 36. Ort\*, S. M. Stanyard, S. Swink\*, Q.M. Ketterings, G. Godwin\*, S.K. Gami\*, K.H. Ganoe and K.J. Czymmek (2013). Carbon and nitrogen uptake of cover crops seeded after small grains. Abstract #78202. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- Cherney, J.H., Ketterings, Q.M., M. Davis, and D. Cherney (2012). Grass Biomass Management for Bioheat. Abstract 257-11. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- Ketterings, Q.M., E. Hung, K. Orloski, S. Gami, G. Godwin, and R. Mathur (2012). Late Season Corn Stalk Nitrate Test: Sampling and Laboratory Analyses. Abstract 155-5. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- 39. McRoberts, K.C., D. Parsons, J.H. Cherney, Q.M. Ketterings, and D.J. R. Cherney (2012). Nitrogen fertilizer management to improve forage production in south-central Vietnam. Poster at the joint meeting of the American Society of Animal Science (ASAS), the American Dairy Science Association (ADSA), the Canadian Society of Animal Science (CSAS), the Western Section of the American Society of Animal Science (WSASAS), and the Asociación Mexicana de Producción Animal (AMPA), Phoenix, Arizona, July 15-19, 2012.
- 40. Ketterings Q.M., J.H. Cherney, G. Godwin, S. Gami, D. Cherney, and K.J. Czymmek (2011). Sulfur needs of alfalfa: tools for sulfur management. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 41. Ketterings, Q.M., J.H. Cherney, K.J. Czymmek, and G. Godwin (2011). Potassium (K) fertilization of alfalfa: how much do we really need? ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 42. Roberts\*, M., Q.M. Ketterings, S. Swink, and S.D. DeGloria (2010). Mapping soil potassium supplying power in New York State using soil geographic databases. 26th Annual NYSGIS Conference. October 24-26, 2010, Saratoga Springs, NY. (Poster also presented at the GIS day of Mann Library, Cornell.
- 43. Long\*, E., Q.M. Ketterings, and S. Gami\* (2010). Nitrogen dynamics after cover crop incorporation. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 44. Godwin\*, G., Q.M. Ketterings, C.L. Mohler, B. Caldwell, and K.J. Czymmek (2010). Impact of clover incorporation and ammonium nitrate sidedressing on ammonium, nitrate and Illinois Soil Nitrogen Test dynamics over time. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 45. Hong\*, E., Q.M. Ketterings, S. Wharton\*, K. Orloski\*, G. Godwin\*, and S. Gami\* (2010). Effect of sampling protocol on corn stalk nitrate test results. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 46. Swink\*, S.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, and M. Van Amburgh (2010). Nitrogen balances for New York State: implications for manure and fertilizer management. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.

- 47. Lian\*, C., Q.M. Ketterings, K.J. Czymmek, G. Godwin\*, J.H. Cherney (2010). Evaluation of the K saturation and soil test K approaches for their effectiveness in predicting a yield response to K addition (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 48. Godwin\*, G., Q.M. Ketterings, T. Kilcer, K.J. Czymmek (2010). Impact of N fertilizer sources on corn silage yield and quality (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 49. Young, E.O., S. Kramer, L. Goehring, and Q.M. Ketterings (2010). Estimating nutrient losses from tile-drained fields in Northern New York. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 50. Cherney, J.H., Q.M. Ketterings, M.H. Davis, D.J.R. Cherney (2010). Perennial grass management influences combustion characteristics (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 51. Ristow\*, P., S. Moss\*, Q.M. Ketterings, T. Shepherd, K.J. Czymmek (2010). Manure nutrient variability across a spreading event, years, and multiple dairy operations. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 52. Williard\*, J.K., Q.M. Ketterings, S.K. Gami\* (2010). Nitrogen dynamics following surfaceapplication of enhanced efficiency fertilizers. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 53. Ketterings, Q.M., L. Smith, M. Dunn\*, J. Williard\*, P. Ristow\* (2010). Web-based course for aspiring Northeast Region Certified Crop Advisors, Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 54. Gami\*, S.K., Q.M. Ketterings, E. Hong\*, P. Ristow\* (2010). Evaluation of nitrogen management of corn using the Illinois Soil Nitrogen Test and Corn Stalk Nitrate Test. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 55. Knight\*, J., P. Ristow\*, G. Swanepoel\*, K.J. Czymmek, B. Gloy, and Q.M. Ketterings (2010). Dairy, livestock and cash grain farmer perceptions of the value of manure. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 56. Rasmussen\*, C.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, P. Ristow\* (2010). Using whole farm mass balances as a management tool on New York State dairy farms. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 57. Chickering\*, J. E. Long\*, Q.M. Ketterings, A. Gabriel (2010). Cover crop practices and usage among dairy farmers in Washington County, New York. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- Cherney, J.H., Q.M. Ketterings, M. Davis and D. Cherney (2009). Timing of semi-solid dairy manure application on orchardgrass. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 59. Grover\*, K., S. Grandt\*, and Q.M. Ketterings (2009). Spatial variability of Illinois Soil Nitrogen Test results in New York soils. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 60. Rasmussen\*, C.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, P. Ristow\* (2009). Whole farm mass nutrient balances as assessment tool for dairy farms. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.

- 61. Ristow\*, P., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, M. van Amburgh, C.N. Rasmussen\* (2009). Whole farm performance indicators; tools for goal-setting and performance tracking on New York Dairy farms. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 62. Ketterings, Q.M., C. Yuan, S. Gami\*, M. Woods, and R. Rao (2009). A simple method for estimating cation exchange capacity across a wide range of soils. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 63. Miyamoto, C., Q.M. Ketterings, R. Rao, K. Dietzel, and S. Gami (2009). A comparison of soil sulfur testing methods on New York soil. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 64. Rasmussen\*, C., Q.M. Ketterings, P. Ristow\*, K. Czymmek and L. Chase (2009). Whole farm nutrient balances of grazing vs non-grazing dairy farms in the Upper Susquehanna Watershed. Northeast Pasture Research and Extension Consortium 2009 Annual Meeting, Morgantown, WV, March 4 and 5, 2009.
- 65. Rao, R., Q.M. Ketterings, and H. Krol (2008). New York State soil test summaries 1995-2006. ASA/SSSA/CSSA meeting, Houston, Texas, October 6-10, 2008.
- 66. Ketterings, Q.M., S.N. Swink\*. S. Duiker, D. Beegle, W. Cox and K.J. Czymmek (2008). Cover crops for nitrogen conservation in corn systems in the Northeast. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 67. Grandt\*, S., Q.M. Ketterings, A. Lembo, and F. Vermeylen (2008). In-field spatial variability of soil test phosphorus and implications for agronomic and environmental phosphorus management. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 68. Dietzel\*, K.A., Q.M. Ketterings, W. Berry\*, and G. Godwin\* (2008). Effects of AlCl<sub>3</sub> and Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> addition to manure on N availability and soil test P increase. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 69. Swink\*, S.N., Q.M. Ketterings, L.E. Chase, J. Mekken\*, and K.J. Czymmek (2008). Past and future phosphorus balances for agricultural cropland in New York State. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16. Also presented at the 2008 SERA17 meeting, Kent Island, Maryland. July 29-31, 2008.
- 70. Rao, R., C. Miyamoto\*, Q.M. Ketterings, and K. Dietzel\* (2008). Comparison of plant available sulfur methods on New York soils. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 71. Magidow\*, L.C., A. DiTommaso, Q.M. Ketterings, and L.R. Milbrath (2008). Does soil pH influence swallow-wort distribution in its current range? Proceedings of the 62<sup>nd</sup> Annual Meeting of the Northeastern Weed Science Society, 62:21. January 8-10, Philadelphia, PA.

- 72. Parsons\*, D., J. Cherney, Q.M. Ketterings, C.F. Nicholson, R.W. Blake, L. Ramirez-Aviles and L.O. Tedeschi (2007). Effect of farmer decision making on nutrient cycling outcomes in an integrated crop-livestock agro-ecosystem in Yucatan, Mexico. 2007 ASA/SSSA/CSSA meeting, New Orleans, Louisiana, November 4-8, 2007.
- 73. Dietzel\*, K., R. Rao, and Q.M. Ketterings (2007). A comparison of lime requirement tests for New York soils. Northeastern Branch ASA/SSSA/CSSA meeting, State College, Pennsylvania, June 24-26, 2007.
- 74. Swink\*, S.N., W.J. Cox and Q.M Ketterings (2007). How much can N fertilizer be reduced for corn after soybean in the northeast? Are adjustments needed? Northeastern Branch ASA/SSSA/CSSA meeting, State College, Pennsylvania, June 24-26, 2007.
- 75. Ketterings, Q.M., J.H. Klapwyk\*, J. Lawrence\*, G. Godwin\* and K.J. Czymmek (2006). Illinois Soil N Test for corn in New York. 2006 ASA/SSSA/CSSA meeting, Indianapolis, Indiana, November 12-16, 2006.
- Rasmussen\*, C.N, S.N. Swink\*, J.C. Mekken\*, K.J. Czymmek and Q.M. Ketterings (2006). Statewide, county-based and whole farm phosphorus balances. SERA17 Annual Meeting, Ithaca, August 2-4, 2006.
- 77. Ketterings, Q.M., J.H. Klapwyk\*, J. Lawrence\*, G. Godwin\* and K.J. Czymmek (2006). Illinois Soil N Test for corn in New York. 2006 ASA/SSSA/CSSA meeting, Indianapolis, Indiana, November 12-16, 2006.
- Haden\*, V.R., Q.M. Ketterings, and J.E. Kahabka\* (2006). Factors affecting the change in soil test P levels of noncalcareous New York soils following manure and fertilizer application. Northeastern Branch ASA/SSSA/CSSA meeting, Philadelphia, Pennsylvania, July 11, 2006.
- 79. Lawrence\*, J.R., Q.M. Ketterings, G. Godwin\*, and K.J. Czymmek (2006). Effect of nitrogen application on yield and quality of first year corn. Northeastern Branch ASA/SSSA/CSSA meeting, Philadelphia, Pennsylvania, July 11, 2006.
- Ketterings, Q.M., C. Rasmussen\*, J.C. Mekken\*, and K.J. Czymmek (2006). Statewide, county-based and whole farm phosphorus balances. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006. Abstract # 14959.
- Czymmek, K.J., and Q.M. Ketterings (2006). The New York CAFO Program; successfully connecting science, policy, regulation, and implementation. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006.
- 82. Hyland\*, C., S. Sato, Z. Lan, Q.M. Ketterings, and J. Lehmann (2006). Properties of phosphorus forms in leachate from soils with long-term manure additions. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006.
- 83. Ketterings, Q.M. (2006). Whole farm nutrient balances: working with producers to identify opportunities for improvement of nutrient management on dairy farms. American Farm Bureau Federation Convention. Nashville, Tennessee, January 8-9, 2006.
- Klapwyk\*, J.H., Q.M. Ketterings, and G. Godwin\* (2005). Evaluation of the Illinois soil N test for NY corn production. 2005 ASA/SSSA/CSSA meeting, Salt Lake City, Utah, November 6-10, 2005. Abstract #7607.
- 85. Brock, E.H., Q.M. Ketterings, and P.J. Kleinman (2005). Changes in phosphorus sorption capacity of manure amended soils. 2005 SERA-17 meeting, Banff, Canada, July 26-29, 2005.
- Mekken\*, J.C., Q.M. Ketterings, G.L. Albrecht\*, and K.J. Czymmek (2005). Phosphorus balance in New York State. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9192.

- Albrecht\*, G., Q.M. Ketterings, and K.J. Czymmek (2005). Engaging students and extension audiences in nutrient management through web-based learning modules. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9188.
- Brock\*, E.H., Q.M. Ketterings, and M. McBride (2005). Copper and zinc accumulation in poultry and dairy manure amended soils. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #5913.
- 89. Ketterings, Q.M. and M. Flock (2004). Comparison of Bray-1 and Mehlich-3 tests in high phosphorus soils. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 November 4, 2004.
- 90. Woods\*, M.S., Q.M. Ketterings and F.S. Rossi (2004). Potassium supply rates in a calcareous sand rootzone. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 November 4, 2004.
- Sato, S., C. Hyland\*, D.M. Solomon, Q.M. Ketterings and C.J. Lehmann (2004). Phosphorus speciation in poultry manure and manure-applied soils using XANES spectroscopy. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 92. Ketterings, Q.M., S. Swink\*, G. Godwin\*, K.J. Czymmek and G.L. Albrecht\* (2004). New York State starter phosphorus project. Results of 3 years of on-farm research. Northeast SARE 2004 Conference: Setting the Table: tools and techniques for a sustainable food system. Invited presentation. October 19-21, 2004.
- 93. Ketterings, Q.M. (2004). Nutrient Management Spear Program. CHE, CALS and Vet College DEL's and Executive Directors Conference. Ithaca, New York, September 8, 2004.
- 94. Klapwyk\*, J.H., Q.M. Ketterings, and G.S. Godwin\* (2004). Nitrate and aminosugar N levels of three years of dairy manure and compost application. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 95. Kahabka\*, J.E., Q.M. Ketterings and S.W. Reid (2004). Trends in New York State soil phosphorus fertility. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 96. Ketterings, Q.M., S. Swink\*, G. Godwin\*, K.J. Czymmek, and G.L. Albrecht\* (2004). The New York Starter Phosphorus Project – Results of three years of on-farm research. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 97. Ketterings, Q.M., and K.J. Czymmek (2003). Soil test conversions for New York. Poster. 2003 ASA/SSSA/CSSA meetings, Denver, Colorado, November 2-6, 2003.
- Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware: a tool for nutrient management planning in New York State. Poster. 2003 ASA/SSSA/CSSA, Denver, Colorado, November 2-6, 2003.
- Ketterings, Q.M., T.F. Kilcer, and J.H. Cherney (2003). Nitrogen and potassium management for brown mid rib sorghum sudangrass – an environmentally sound alternative to corn silage? Poster presented at the 2003 ASA/SSSA/CSSA meetings, Denver, Colorado, November 2-6, 2003.
- 100.Hyland, C., Z. Lan, J. Lehmann, and Q.M. Ketterings (2003). Phosphorus leaching and organic phosphorus forms in soil after long-term manure applications. Poster presented at the 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 101.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware: A Software Tool of the Cornell University Nutrient Management Planning System. Poster presented at the 2003 NE ASA/SSSA meetings, Burlington, Vermont, June 29-July 2, 2003.

- 102.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware. Poster presented at the annual SERA-17 meeting, Twin Falls, Idaho, June 25-27, 2003.
- 103.Klapwyk\*, J.H., N. Galens\*, and Q.M. Ketterings (2003). The Amino Sugar Nitrogen Test Project: Developing an Environmental and Economical Tool for NY Corn Production. Poster presented at the NYS Soil and Water Conservation Committee June Meeting. Ithaca, NY, June 17, 2003.
- 104.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware: A Software Tool of the Cornell University Nutrient Management Planning System. Poster presented at the NYS Soil and Water Conservation Committee June Meeting. Ithaca, NY, June 17, 2003.
- 105.Ketterings, Q.M. and K.J. Czymmek (2003). Nutrient Management Spear Program. Poster presented at the NYS Soil and Water Conservation Committee June Meeting. Ithaca, NY, June 17, 2003.
- 106.Ketterings, Q.M., K.J. Czymmek, S. Swink\*, and G. Godwin\* (2003). New York Starter P Project. Poster presented at the NYS Soil and Water Conservation Committee June Meeting. Ithaca, NY, June 17, 2003.
- 107.Ketterings, Q.M., T. Byron\*, K.J. Czymmek and S. Bossard (2002). Phosphorus dynamics in manure and compost based corn systems in New York State. Poster. 17<sup>th</sup> World Congress of Soil Science in Bangkok, Thailand, August 14-21, 2002.
- 108.Kilcer, T., Q.M. Ketterings, P. Cerosaletti, T.W. Katsvairo\*, P. Barney, M. Dennis, T. Byron and J.H. Cherney (2002). Brown mid rib sorghum sudangrass in NY. Poster. Annual NE ASA/SSSA Meetings in Morgantown, WV, July 14-17, 2002.
- 109.Ketterings, Q.M. (2002). Phosphorus storage capacity of Honeoye soils. Poster presented at the Annual PCCW meeting on April 12<sup>th</sup> in Ithaca, NY.
- 110.Ketterings, Q.M., K.J. Czymmek, and T.M. Byron\* (2002). New York State P starter project 2000/2001. Poster presented by Lisa Field at the CCE Schoharie's Dairy Day 2002 on January 10<sup>th</sup> at SUNY Cobleskill.
- 111.Czymmek, K.J., L.D. Geohring, D.R. Dewing, R.B. Bryant, K. Carpenter, T.S. Steenhuis, Q.M. Ketterings, and H. van Es (2001). Nutrient management program in New York. ASA/SSSA/CSSA Annual Meetings in Charlotte, NC, October 21-25, 2001.
- 112.Van Es, H., K.J. Czymmek, and Q.M. Ketterings (2001). Nitrogen leaching index for New York. ASA/SSSA/CSSA Annual Meetings in Charlotte, NC, October 21-25, 2001.
- 113.New York P Index Working Group (2001). The New York phosphorus runoff index. Poster presented at the 2001 Soil and Water Conservation Society Annual Meeting, August 4-8, Myrtle Beach, South Carolina. Poster made by Q.M. Ketterings and K.J. Czymmek and presented by K.J. Czymmek.
- 114.Van Es, H., K.J. Czymmek, and Q.M. Ketterings (2001). Nitrogen leaching index for New York. Poster presented at the 2001 Soil and Water Conservation Society Annual Meeting, August 4-8, Myrtle Beach, South Carolina. Poster by H. van Es.
- 115.New York P Index Working Group (2001). The New York phosphorus runoff index. Poster presented at the 2001 SERA-17 meeting, July 19-21, State College, Pennsylvania, USA. Poster made and presented by Q.M. Ketterings and K.J. Czymmek.
- 116.Ketterings, Q.M., B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman (2001). Do Modified Morgan and Mehlich-III soil test results have Morgan Equivalents? Poster

presented at the 2001 Northeast Branch ASA/SSSA Annual meeting, June 24-27, Kingston, Rhode Island, USA.

- 117.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (2000). The benefits of a reduction in fallow period. An example from Indonesia. Poster presented as part of the special symposium on Fallow Management at the 2000 ASA, CSSA, SSSA Annual meetings, November 5 – 9, Minneapolis, Minnesota, USA.
- 118.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (1999). Impacts of slash and burn fire intensity on P availability. Poster (on invitation) presented at the 1999 ASA, CSSA, SSSA Annual meetings, October 31 November 4, Salt Lake City, Utah, USA.
- 119.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (1999). Spatial variability of selected soil properties in broadcast and secondary pile and burn practices in Sumatra, Indonesia. Poster presented at the 1999 ASA, CSSA, SSSA Annual meetings, October 31 – November 4, Salt Lake City, Utah, USA.
- 120. Van Noordwijk, M., B. Lusiana, and Q.M. Ketterings (1999). WaNuLCAS: a model of Water, Nutrient and Light Capture in Agroforestry Systems to evaluate alternatives to slash and burn. Poster presented at the 1999 ASA, CSSA, SSSA Annual meetings, October 31 – November 4, Salt Lake City, Utah, USA.
- 121.Ketterings, Q.M., J.M. Bigham, and V. Laperche (1998). Effects of forest burning on soil mineralogy: results from field experiments in Indonesia. Poster presented at the 1998 ASA, CSSA, SSSA Annual meetings, October 18-22, Baltimore, Maryland, USA.
- 122.Ketterings, Q.M., T.T. Wibowo\*, M. Van Noordwijk, and E. Penot (1998). Farmers' perspectives on slash-and-burn as a land clearing method for small-scale rubber producers in Sepunggur, Jambi Province, Sumatra, Indonesia. Poster presented at the Annual OARDC Conference, April 16, 1998.
- 123.Ketterings, Q.M., Y. Ambagau\*, Djunaedy\*, M. Van Noordwijk, and I. Anas (1997). Is the increased soil fertility after slash and burn due to the slash or the burn? Poster presented at the International Workshop on Biological Management of Soil Fertility on Acid Upland Soils in the Humid Tropics, July 28-31, Malang, Indonesia.
- 124.Bohlen, P. J., R.W. Parmelee, M.F. Allen, and Q.M. Ketterings (1995). Uptake and redistribution of <sup>15</sup>N by the earthworm, *Lumbricus terrestris*, in soil cores amended with various 15N-labeled substrates. Ecological Society of America Meeting, Fort Collins, CO, August 1995. Abstract. Bulletin of the Ecological Society of America.
- 125.Ketterings, Q.M., J.M. Blair and J.C.Y. Marinissen (1993). Effects of earthworms on soil aggregates and carbon and nitrogen storage in agro-ecosystems based on legume/rye winter cover crop nitrogen. Ecological Society of America Meeting, Madison, WI, August 1993. Abstract. Bulletin of the Ecological Society of America 74:306.
- Published abstracts (\*indicates NMSP staff or student advisees):

	Abstract
2019	
2018	13
2017	11
2016	20
2015	11
2014	11

2013	14
2012	7
2011	6
2010	23
2009	14
2008	12
2007	8

2006	6
2005	9
2004	12
2003	10
2002	4
2001	2

2000	1
1999	3
1998	1
1995	1
1993	1
Total	200

- Maresma Galindo, A., T. Kharel, K.J. Czymmek, E. Shields and Q.M. Ketterings (2018). 38-2 Drone NDVI Imagery to Analyze Timing of N Sidedressing for Corn. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- Lyons, S.E., Q.M. Ketterings, D.J.R. Cherney, J.H. Cherney, G. Godwin, J.J. Meisinger and T.F. Kilcer (2018). 83-7 Double Cropping with Triticale and Forage Sorghum in the Northeast: Managing for Optimal Yield and Forage Quality. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- Ros, M.B.H., Q.M. Ketterings, S Cela and K.J. Czymmek (2018). 145-4 Evaluating the New York Phosphorus Index with a 33,000-Field Database. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- Kharel, T.P., S.N. Swink, A. Maresma, C. Youngerman, K.J. Czymmek and Q.M. Ketterings (2018). 182-1 Yield Monitor Data Cleaning Is Essential for Accurate Corn Grain/Silage Yield Determination. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- Lyons, E.S., Q.M. Ketterings, D.J.R. Cherney, J.H. Cherney, G. Godwin, J.J. Meisinger and T.F. Kilcer (2018). 193-6 Nitrogen Needs and Harvest Management of Brachytic BMR Forage Sorghum in New York. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- 8. Ketterings, Q.M. and K.J. Czymmek (2018). 292-2 Development of an Adaptive Management Approach for Nutrient Management in New York. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation.
- 9. Kharel, T.P., A. Maresma, K.J. Czymmek and Q.M. Ketterings (2018). Documenting Spatial and Temporal Variability in Corn Silage Yield in Farmers' Fields. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- Ros, M.B.H., K.J. Czymmek and Q.M. Ketterings (2018. Linking the New York Phosphorus Index with Whole-Farm Phosphorus Balances. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- Maresma Galindo, A., R. Breslauer, T. Kharel, P. Berenguer, A.C. Tagarakis, K.J. Czymmek and Q.M. Ketterings (2018). Yield and CSNT Relationship to Better Explain Nitrogen Management in Corn Fields. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Poster.
- 12. Haines, Q., S. Matott, J. Ringland, A. Maresma, T. Kharel, K.J. Czymmek, Q.M. Ketterings, E.Oware (2018). Using principal component regression to predict soil nitrogen supply potential from electromagnetic induction. American Geophysical Union Annual Meeting, Washington DC, December 10-14, 2018.

- 13. Ros, M., Q.M. Ketterings, S. Cela, and K.J. Czymmek (2018). Evaluation of the New York phosphorus index using a 33,000-field database. 6th Symposium on Phosphorus in Soils and Plants. Leuven, Belgium.
- Maresma Galindo, A., and Q.M. Ketterings (2017). <u>In-Field Variability of Illinois Soil</u> <u>Nitrogen Test and Loss-on-Ignition for Nitrogen Management</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract.
- Lyons, S.E., Z. Tang, J. Booth and Q.M. Ketterings (2017). <u>Comparison of Statistical Approaches to Determine Nitrogen Needs of Winter Cereals</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract.
- Crittenden, S.J., Q.M. Ketterings and K. Dietzel (2017). <u>Impact of Phosphorus Source on Soil</u> <u>Test Phosphorus Increase</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract.
- Ketterings, Q.M., S. Cela, K.J. Czymmek, C.N. Rasmussen and M. Soberon (2017). <u>Improvements in Whole Farm Nitrogen and Phosphorus Balances on Dairy Farms in New</u> <u>York.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. 15 min. Talk and abstract.
- Kharel, T.P., E.A. Long, S.D. DeGloria, and Q.M. Ketterings (2017). <u>Quadrant Count</u> <u>Method to Quantify within Field Variability of Corn Silage on Three New York Farms.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. 15 min. Talk and abstract.
- Lyons, S.E., Q.M. Ketterings, Z. Tang, S. Ort, G. Godwin, K.J. Czymmek, S.N. Swink and T.F. Kilcer (2017). <u>Geographic, Soil, and Management Characteristics Impact Winter Cereal</u> <u>Performance.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- Maresma Galindo, A., P. Berenguer, R. Breslauer, A.C. Tagarakis and Q.M. Ketterings (2017). <u>Corn Stalk Nitrate Test Spatial Variability</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. Poster and abstract.
- Kharel, T.P., S.N. Swink, A. Maresma Galindo, C. Youngerman, K.J. Czymmek and Q.M. Ketterings (2017). <u>Yield Monitor Data Cleaning Effect on Corn Grain and Silage Yield</u> <u>Determination</u>. ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- 22. Ros, M.B.G., S.J. Crittenden, S. Cela, K.J. Czymmek and Q.M. Ketterings (2017). <u>Setting</u> <u>Targets for the Phosphorus Index Using Whole-Farm Phosphorus Balances.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. Poster and abstract.
- 23. Spargo, J.T., D.B Beegle, and Q.M. Ketterings (2017). Sulfur fertility evaluation of field and forage crops in the Northeastern USA. 15<sup>th</sup> International Symposium on Soil and Plant Analyses (ISSPA) 2017 Conference. Nanjing, China. May 15-18, 2017. Abstract and Oral Presentation.
- 24. Lyons, S., Q.M. Ketterings, D. Cherney, J.H. Cherney, G.S. Godwin, and T.F. Kilcer (2017). Growth stage at harvest influences forage quality and yield of brown midrib forage sorghum. ASAS-CSAS 2017 meeting, Baltimore, MD, July 8-12, 2017. Oral Presentation and Abstract.
- 25. Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2016). <u>Impact of Nitrogen vs Phosphorus-Based Manure and Compost Management on Corn Yield and Nitrous Oxide Emissions.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-9, 2016. Oral Presentation and Abstract.

- 26. Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2016). <u>Nitrous Oxide Emissions from Injected Vs. Surface Applied Liquid Dairy Manure in Alfalfa and Tall Fescue.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- 27. Lyons, S.E., Q.M. Ketterings, Z. Tang, S. Ort, G. Godwin, K.J. Czymmek, S. Swink and T.F. Kilcer (2016). <u>How Much N Should You Apply to Winter Cereal Double Crops in the Spring?</u> <u>An Evaluation of Agronomic, Economic, and Environmental Consequences.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- Crittenden, S., Q.M. Ketterings, K.J. Czymmek (2016). <u>Soil Phosphorus Saturation Ratio</u> <u>Sets Comparable Manure Application Cutoffs for New York and Pennsylvania.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- Lyons, S.E., T. Kilcer, G. Godwin, and Q.M. Ketterings (2016). <u>The Impact of Planting Date</u> on the Establishment and Nitrogen Uptake of Winter Cereals Grown As Double Crops in <u>Corn Silage Rotations in New York.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- Ketterings, Q.M., and K.J. Czymmek (2016). <u>Extending the Growing Season to Improve Farm Nutrient Budgets</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- 31. Tagarakis, A., Q.M. Ketterings, and K.J. Czymmek (2016). <u>On Farm Research to Evaluate</u> <u>Sensor Algorithms for Corn N Management in NY.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract.
- Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2016). <u>Impact of Manure Management on Soil Test Phosphorus Dynamics in a Long-Term Corn-Alfalfa Rotation</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- Tagarakis, A.C., Q.M. Ketterings and S.E. Lyons (2016). <u>In-Season Prediction of Forage</u> <u>Sorghum Yield Using Proximal Sensing</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- 34. Liu, C., A.C. Tagarakis, S.E. Lyons, G. Godwin, and Q.M. Ketterings (2016). <u>Proximal Sensing Technology to Predict the Quality of Forage Sorghum for Optimal Time of Harvest.</u> ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Poster Presentation and Abstract.
- 35. Kleinman, P.J., T.J. Basden, D.B. Beegle, Z. Easton, Q. Ketterings, A. Shober, and J. Weld (2016). Phosphorus index project overview: Refining and harmonizing phosphorus indices in the Chesapeake Bay region to improve critical source area identification and to address nutrient management priorities. 71<sup>st</sup> International Annual Conference Soil and Water Conservation Society. Managing Great River Landscapes. July 24-27, 2016. Louisville, Kentucky. Abstract and oral presentation.
- 36. Lyons, S.E., T. Kilcer, G.S. Godwin, D. Cherney, J. Cherney, and Q.M. Ketterings (2016). Effect of nitrogen fertilizer application rate on yield and quality of Brachytic Dwarf Brown Midrib forage sorghum. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and oral presentation.
- 37. Breslauer, R.S., P. Berenguer, and Q.M. Ketterings (2016). Where to sample? An analysis of whole farm corn stalk nitrate test (CSNT) result variability and how farmers choose fields to

sample. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.

- 38. Tang, Z., S.E. Lyons, and Q.M. Ketterings (2016). Determination of optimum nitrogen rates for winter cereals using yield response curves. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- Swink, S.N., Q.M. Ketterings, K.J. Czymmek, G.S. Godwin, K. O'Neil, M. Hunter, E. Bever, M. Contessa, J. Lawrence, D. Morse, T. McClelland, P.M. Barney, and A.C. Tagarakis (2016). Given higher yield potentials, is it time to change our nitrogen recommendations for corn? The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 40. Gami, S., Q.M. Ketterings, K.J. Czymmek, and G.S. Godwin (2016). Evaluation of the impact of acid whey on soil pH and liquid manure pH. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 41. Crittenden, S., S. Cela, Q.M. Ketterings, and K.J. Czymmek (2016). Developing a new P index for New York with stakeholder input. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and poster presentation.
- 42. Ketterings, Q.M., S. Cela, M. Soberon, C. Rasmussen, S. Crittenden, and K.J. Czymmek (2016). Whole farm nutrient mass balances for improvements in agriculture and environmental management of dairy farms. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and oral presentation.
- 43. Sadeghpour, A., Q.M. Ketterings, G.S. Godwin, and K.J. Czymmek (2016). Soil test potassium buildup and drawdown in response to manure, compost, and potassium application in a corn-alfalfa rotation. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and oral presentation.
- 44. Tagarakis, A.C., Q.M. Ketterings, A. Sadeghpour, G.S. Godwin, I.B. Cornell, and K.J. Czymmek (2016). Canopy reflectance measurements to predict corn yield in response to nitrogen fertilizer management. The Northeastern Plant, Pest, and Soils Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and oral presentation.
- 45. Lyons, S. Q.M. Ketterings, S. Ort, G. Godwin, K.J. Czymmek, S. Swink and T.F. Kilcer (2015). <u>Double Cropping of Corn Silage Rotations with Winter Cereals As Forage Crop.</u> Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by S. Lyons.
- 46. Berenguer, P., Q.M. Ketterings, R. Breslauer, A.C. Tagarakis, and A. Maresma (2015). <u>Corn Stalk Nitrate Test (CSNT)</u>; <u>Developing a Sampling Protocol Based on within-Field Spatial Variability and Yield Zones.</u> Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by R. Breslauer.
- 47. Tagarakis, A.C., Q.M. Ketterings, K.J. Czymmek, M. Stanyard and M. Hunter (2015). <u>Evaluation of Crop Sensor Algorithms for on-the-Go Variable Rate N Application for Corn</u> <u>in NY</u>. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Tagarakis.
- 48. Cela, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2015). <u>Nutrient</u> <u>Mass Balances Trends for Dairy Farms in New York and in the Upper Susquehanna</u> <u>Watershed.</u> Abstract and oral presentation. Annual Conference of the Agronomy, Soil and

Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by Q.M. Ketterings.

- 49. Cela, S., Q.M. Ketterings, K.J. Czymmek and S.J. Crittenden (2015). <u>A New and More Intuitive Structure for the New York Phosphorus Index.</u> Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by S.J. Crittenden.
- 50. Ketterings, Q.M., S.J. Crittenden, S. Cela, and K.J. Czymmek (2015). <u>Evaluation of the New York Phosphorus Index.</u> Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by Q.M. Ketterings.
- 51. Lefever, A., A. Sadeghpour, and Q.M. Ketterings (2015). <u>Effect of nitrogen- vs phosphorus-based manure and compost management on soil quality</u>. Abstract and poster presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Lefever.
- 52. Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2015). <u>Impact of manure and compost management on soil test phosphorus buildup and drawdown in a corn-alfalfa rotation</u>. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Sadeghpour.
- 53. Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2015). <u>Greenhouse gas emissions from nitrogen- vs phosphorus-based manure and compost management of grain corn.</u> Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Sadeghpour.
- Ketterings, Q.M., R.R. Mathur, S.K. Gami, and M. Woods (2015). Estimating effective cation exchange capacity, cation saturation ratios, and sulfur across several soils types. International Soil and Plant Analyses Council Meeting, Kona, Hawaii. January 29, 2015.
- 55. Ketterings, Q.M., R.R. Mathur (2015). Corn stalk nitrate test: Sampling and laboratory analyses. International Soil and Plant Analyses Council Meeting, Kona, Hawaii. January 29, 2015.
- 56. Liebert, J., M. Ryan, and Q.M. Ketterings (2014). Trade-Offs Between Forage Quality and Yield of Winter Cereals Grown As Forage in Double-Cropping Systems. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 124-4. Oral Presentation and Abstract.
- Ryan, M., B. Caldwell, A. DiTommaso, L. Drinkwater, C. Marschner, C.L. Mohler and Q.M. Ketterings (2014). Agronomic Performance in the Cornell Organic Grain Cropping Systems Experiment. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 209-6. Oral Presentation and Abstract.
- 58. Cela, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2014). Evolution of N and P Mass Balances over Time on Four Dairy Farms in NY. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 353-1 Oral Presentation and Abstract.
- 59. Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Nitrogen- versus Phosphorus-Based Manure and Compost Management of Corn. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 323-3. Oral Presentation and Abstract.

- 60. Long, E.A., Q.M. Ketterings, D. Russell, and F. Vermeylen (2014). Assessment of Yield Monitoring Equipment in Determining Moisture and Yield of Forage Crops. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 224-2.
- 61. Berenguer, P., A.C. Tagarakis, E. Mudrak, R. Breslauer, E.A. Long, and Q.M. Ketterings (2014). Spatial Variability in Yield and Corn Stalk Nitrate Test Results. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 224-3.
- 62. Long, E.A., and Q.M. Ketterings (2014). Whole Farm and Field Corn and Alfalfa Yield Variability on a CAFO Dairy Farm. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 260-9. Poster Presentation and Abstract.
- 63. Cela<sup>-</sup> S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2014). Characterization of Nutrient Mass Balances on New York Dairy Farms. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 260-10. Poster Presentation and Abstract.
- 64. Cela S., Q.M. Ketterings and K.J. Czymmek (2014). Ten Years of the New York Phosphorus Index: Nutrient Management Planners' Feedback. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 262-4. Poster Presentation and Abstract.
- 65. Sadeghpour A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Soil Health Under Nitrogen- Vs Phosphorus-Based Manure and Compost Management of Corn. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 322-10. Poster Presentation and Abstract.
- 66. Sadeghpour A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Impact of N Application Rate on Nitrogen Use Efficiency and pH in a Fertilizer-Management Continuous Corn Silage System. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 445-13. Poster Presentation and Abstract.
- 67. Cela\*, S., Q.M. Ketterings, M. Soberon\*, S. Swink\*, and K.J. Czymmek (2013). State, Regional and Farm-Scale Nutrient Balances: Tools for Enhanced Efficiency of Whole-Farm Nutrient Use. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.
- Long\*, E.A., Q.M. Ketterings, D. Russell and K.J. Czymmek (2013). Assessing Accuracy of Forage Yield Monitors for Use in Alfalfa. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.
- 69. Ketterings, Q.M. (2013). Extension and Knowledge Transfer; Adaptive Management Approaches for Timely Impact. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.
- 70. McRoberts\*, K.C., Q.M. Ketterings, B.M. Benson, S. Ort\* and G. Godwin\* (2013). Estimating accumulated biomass and nitrogen pools in over-wintered cover crops: digital image analysis versus manual sampling. Abstract #77622. 2013 ASA/CSSA/SSSA Annual Meeting. Tampa, FL, Nov 3-6, 2013.
- Long\*, E.A., and Q.M. Ketterings (2013). Yield records for adaptive management: A case study approach. Abstract #80716. 2013 ASA/CSSA/SSSA Annual Meeting. Tampa, FL, Nov 3-6, 2013.
- Long\*, E.A., Q.M. Ketterings, D. Russell and K.J. Czymmek (2013). Assessing accuracy of forage yield monitors for use in alfalfa. Abstract #79151. 2013 ASA/CSSA/SSSA Annual Meeting. Tampa, FL, Nov 3-6, 2013.
- 73. Cela, S., Q.M. Ketterings, M. Soberon, S. Swink and K.J. Czymmek (2013). State, regional and farm-scale nutrient balances: tools for enhanced efficiency of whole-farm nutrient use. Abstract #79223. 2013 ASA/CSSA/SSSA Annual Meeting. Tampa, FL, Nov 3-6, 2013.

- 74. Ketterings Q.M. (2013). Extension and knowledge transfer; adaptive management approaches for timely impact. Abstract #79209. 2013 ASA/CSSA/SSSA Annual Meeting. Tampa, FL, Nov 3-6, 2013.
- Long\*, E.A., Q.M. Ketterings, D. Russell and K.J. Czymmek (2013). Assessing accuracy of forage yield monitors for use in alfalfa. Abstract #78341. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- Long\*, E.A., Q.M. Ketterings, S.K. Gami\*, and G. Godwin\* (2013) Nitrogen dynamics of cover crops in corn rotations in New York State. Abstract #78339. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- 77. Ketterings, Q.M., E. Hong\*, K. Orloski\*, S.K. Gami\*, G. Godwin\* and R.R. Mathur (2013). Late season corn stalk nitrate test: sampling and laboratory analyses. Abstract #78261. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- Ketterings, Q.M., G. Godwin\*, S.N. Swink\* and K.J. Czymmek (2013). Can manure replace the need for starter N fertilizer for corn. Abstract #78260. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- 79. Ort\*, S. M. Stanyard, S. Swink\*, Q.M. Ketterings, G. Godwin\*, S.K. Gami\*, K.H. Ganoe and K.J. Czymmek (2013). Carbon and nitrogen uptake of cover crops seeded after small grains. Abstract #78202. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- Ort\*, Q.M. Ketterings, K.J. Czymmek, G. Godwin\*, S. Swink\* and S.K. Gami\* (2013). Accumulation of carbon and nitrogen by cereal cover crops seeded after corn silage. Abstract #78151. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- Ketterings, Q.M, J. Spargo, and J. Meisinger (2012). Soil Tests for Nitrogen Recommendations for Corn. Abstract 188-3. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- 82. Long\*, E., Q.M. Ketterings, S. Gami\*, G. Godwin\* and K.J. Czymmek (2012). Nitrogen Dynamics of Cover Crop Incorporation in New York State: Triticale As a Cover and Double Crop On a New York Dairy. Abstract 129-2. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- 83. Cherney, J.H., Ketterings, Q.M., M. Davis, and D. Cherney (2012). Grass Biomass Management for Bioheat. Abstract 257-11. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- Ketterings, Q.M., E. Hung\*, K. Orloski\*, S. Gami\*, G. Godwin\*, and R. Mathur (2012). Late Season Corn Stalk Nitrate Test: Sampling and Laboratory Analyses. Abstract 155-5. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.
- 85. McRoberts\*, K.C., D. Parsons\*, J.H. Cherney, Q.M. Ketterings, and D.J. R. Cherney (2012). Nitrogen fertilizer management to improve forage production in south-central Vietnam. Abstract at the joint meeting of the American Society of Animal Science (ASAS), the American Dairy Science Association (ADSA), the Canadian Society of Animal Science (CSAS), the Western Section of the American Society of Animal Science (WSASAS), and the Asociación Mexicana de Producción Animal (AMPA), Phoenix, Arizona, July 15-19, 2012.
- 86. Little\*, N.G., C.L. Mohler, A. DiTommaso, and Q.M. Ketterings (2012). Partitioning effects of nutrients from organic amendments on crop and weed growth. Abstracts from the Annual Meeting of the Weed Science Society of America. February 6-9, Waikoloa, HI. No. 289.

- 87. Little\*, N.G., C.L. Mohler, A. DiTommaso, and Q.M. Ketterings (2012). Partitioning out the effects of nutrients from composted manure on weeds and crops. In: Lycan, D.W. (ed.) Proceedings of the 66th Annual Meeting of the Northeastern Weed Science Society, 66:42.
- 88. Sharpley, A., D. Beegle, C. Bolster, L. Good, B. Joern, Q.M. Ketterings, J. Lory, R. Mikkelsen, D. Osmond, and P. Vadas (2011). Phosphorus indices and the 590 review: why we need to take stock of how we are doing. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 89. Ketterings, Q.M. and K.J. Czymmek (2011). P index as a P awareness tool: documented P use reductions in NYS. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 90. Ketterings Q.M., J.H. Cherney, G. Godwin\*, S. Gami\*, D. Cherney, and K.J. Czymmek (2011). Sulfur needs of alfalfa: tools for sulfur management. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 91. Ketterings, Q.M., J.H. Cherney, K.J. Czymmek, and G. Godwin\* (2011). Potassium (K) fertilization of alfalfa: how much do we really need? ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011.
- 92. Ketterings, Q.M., and K.J. Czymmek (2011). Nutrient management strategies for dairy based agriculture. 4<sup>th</sup> International Symposium Global Issues in Nutrient Management Science Technology and Policy. Proceedings. University of Delaware. p 23. Oral presentation as well as published abstract.
- 93. Little\*, N.G., C.L. Mohler, Q.M. Ketterings, and A. DiTommaso (2011). Responses of weeds and crops to organic nutrient amendments. 65<sup>th</sup> Annual Meeting of the Northeast Weed Science Society of America. Baltimore, MD, January 3-6, 2011. Oral presentation as well as published abstract.
- 94. Roberts\*, M., Q.M Ketterings, S. Swink\*, and S.D. DeGloria (2010). Mapping soil potassium supplying power in New York State using soil geographic databases. 26th Annual NYSGIS Conference. October 24-26, 2010, Saratoga Springs, NY. (poster also presented at the GIS day of Mann Library, Cornell.
- 95. Long\*, E., Q.M. Ketterings, and S. Gami\* (2010). Nitrogen dynamics after cover crop incorporation. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 96. Godwin\*, G., Q.M. Ketterings, C.L. Mohler, B. Caldwell, and K.J. Czymmek (2010). Impact of clover incorporation and ammonium nitrate sidedressing on ammonium, nitrate and Illinois Soil Nitrogen Test dynamics over time. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 97. Hong\*, E., Q.M. Ketterings, S. Wharton\*, K. Orloski\*, G. Godwin\*, and S. Gami\* (2010). Effect of sampling protocol on corn stalk nitrate test results. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 98. Swink\*, S.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, and M. Van Amburgh (2010). Nitrogen balances for New York State: implications for manure and fertilizer management. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 99. Lian\*, C., Q.M. Ketterings, K.J. Czymmek, G. Godwin\*, J. Cherney (2010). Evaluation of the K saturation and soil test K approaches for their effectiveness in predicting a yield response to K addition (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.

- 100.Godwin\*, G., Q.M. Ketterings, T. Kilcer, K.J. Czymmek (2010). Impact of N fertilizer sources on corn silage yield and quality (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 101. Young, E.O., S. Kramer, L. Goehring, and Q.M. Ketterings (2010). Estimating nutrient losses from tile-drained fields in Northern New York. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 102. Cherney, J.H., Q.M. Ketterings, M.H. Davis, D.J.R. Cherney (2010). Perennial grass management influences combustion characteristics (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 103.Ristow\*, P., S. Moss\*, Q.M. Ketterings, T. Shepherd, K.J. Czymmek (2010). Manure nutrient variability across a spreading event, years, and multiple dairy operations. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 104.Williard\*, J.K., Q.M. Ketterings, S.K. Gami\* (2010). Nitrogen dynamics following surfaceapplication of enhanced efficiency fertilizers. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 105.Ketterings, Q.M., L. Smith, M. Dunn\*, J. Williard\*, P. Ristow\* (2010). Web-based course for aspiring Northeast Region Certified Crop Advisors, Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 106.Gami\*, S.K., Q.M. Ketterings, E. Hong\*, P. Ristow\* (2010). Evaluation of nitrogen management of corn using the Illinois Soil Nitrogen Test and Corn Stalk Nitrate Test. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 107.Knight\*, J., P. Ristow\*, G. Swanepoel\*, K.J. Czymmek, B. Gloy, and Q.M. Ketterings (2010). Dairy, livestock and cash grain farmer perceptions of the value of manure. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 108.Rasmussen\*, C.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, P. Ristow\* (2010). Using whole farm mass balances as a management tool on New York State dairy farms. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 109. Chickering\*, J. E. Long\*, Q.M. Ketterings, A. Gabriel (2010). Cover crop practices and usage among dairy farmers in Washington County, New York. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 110.Place\*, A.M., Q.M. Ketterings, G. Godwin\*, P. Barney, J.R. Lawrence, B. Aldrich, T. Kilcer, K. Czymmek, B. Gloy. (2010). Shallow incorporation of manure in reduced tillage systems conserves residue and nitrogen. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 111.Mohler, C.L., T. Björkman<sup>2</sup>, K. Martens, B. Caldwell, Q.M. Ketterings, A. DiTommaso (2010). Heavy fertilization with compost and manure can cause weed problems. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 112.Mohler, C.L., B. Caldwell, and Q.M. Ketterings (2010). The Cornell Organic Grain Cropping Systems Experiment: Nutrients, yields and net returns through transition and beyond. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.

- 113.Czymmek, K.J., QM. Ketterings, G. Godwin\*, C. Lian, J.H. Cherney (2010). Potassium fertilization of alfalfa-grass: how much do we really need? Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 114.Ristow\*, P, Q.M. Ketterings, C. Rasmussen\*, K.J. Czymmek, M. Van Amburgh, L.E. Chase (2010). Evaluation of farm performance indicators of three New York dairies as predictors for farm nutrient balances over time. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 115.Ketterings, Q.M., J.H. Cherney, G. Godwin\*, S. Gami\*, D. Cherney, K.J. Czymmek (2010). Sulfur needs of alfalfa; tools for sulfur management. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 116.Manure value/cost calculator. Rasmussen\*, C.N., P. Ristow\*, M. Dunn\*, B. Gloy, W. Knoblauch, K.J. Czymmek, T. Shepherd, Q.M. K)etterings (2010). Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY.
- 117.Cherney, J.H., Q.M. Ketterings, M. Davis and D. Cherney (2009). Timing of semi-solid dairy manure application on orchardgrass. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 118.Place\*, A., Q.M. Ketterings, S. Bossard, J. Lawrence, K.J. Czymmek, and B. Gloy (2009). Shallow incorporation of manure in reduced tillage systems. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 119.Grover\*, K., S. Grandt\*, and Q.M. Ketterings (2009). Spatial variability of Illinois Soil Nitrogen Test results in New York soils. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 120.Rasmussen\*, C.N., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, P. Ristow\* (2009). Whole farm mass nutrient balances as assessment tool for dairy farms. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 121.Ketterings, Q.M., J. Klapwyk, J. Lawrence, K.J. Czymmek (2009). Comprehensive perspective on the ISNT approach. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 122.Ristow\*, P., Q.M. Ketterings, L.E. Chase, K.J. Czymmek, M. van Amburgh, C.N. Rasmussen\* (2009). Whole farm performance indicators; tools for goal-setting and performance tracking on New York Dairy farms. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 123.Ketterings, Q.M., C. Yuan, S. Gami, M. Woods, and R. Rao (2009). A simple method for estimating cation exchange capacity across a wide range of soils. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 124.Swink, S.N., Q.M. Ketterings, K.J. Czymmek, M. van Amburgh, and L.E. Chase (2009). Nitrogen balances for New York State: past and future. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 125.Miyamoto, C., Q.M. Ketterings, R. Rao, K. Dietzel, and S. Gami (2009). A comparison of soil sulfur testing methods on New York soil. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 126.Aldrich, B., K.J. Czymmek, Q.M. Ketterings and J. Peck (2009). On-farm cover crop field demonstrations in New York. Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Portland, ME. July 12-16.

- 127.Ketterings, Q.M., J.H. Cherney, G. Godwin, and K.J. Czymmek (2009). Fertility management of corn and alfalfa rotations. Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Portland, ME. July 12-16.
- 128.Place, A., Q.M. Ketterings, D. Dewing, J. Lawrence (2009). Whole farm Illinois Soil Nitrogen Test (ISNT) assessment in New York. Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Portland, ME. July 12-16.
- 129. Wharton, S., K. Orloski, Q.M. Ketterings, K.J. Czymmek, and G. Godwin (2009). Evaluation of the late season corn stalk nitrate test for New York. Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Portland, ME. July 12-16.
- 130.Rasmussen\*, C., Q.M. Ketterings, P. Ristow\*, K. Czymmek and L. Chase (2009). Whole farm nutrient balances of grazing vs non-grazing dairy farms in the Upper Susquehanna Watershed. Northeast Pasture Research and Extension Consortium 2009 Annual Meeting, Morgantown, WV, March 4 and 5, 2009.
- 131.Ketterings, Q.M., K.J. Czymmek, C. Rasmussen, P. Ristow, and L.E. Chase (2008). Using whole farm mass balance assessments for improving upon nutrient management plans. ASA/SSSA/CSSA meeting, Houston, Texas, October 6-10, 2008.
- 132.Rao, R., Q.M. Ketterings, and H. Krol (2008). New York State soil test summaries 1995-2006. ASA/SSSA/CSSA meeting, Houston, Texas, October 6-10, 2008.
- 133.Ketterings, Q.M., S.N. Swink\*. S. Duiker, D. Beegle, W. Cox and K.J. Czymmek (2008). Cover crops for nitrogen conservation in corn systems in the Northeast. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 134.Rasmussen\*, C. Q.M. Ketterings, L.E. Chase, K.J. Czymmek, and P. Ristow\* (2008). Using whole farm mass balances as a management tool on New York State dairy farms. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 135.Grandt\*, S., Q.M. Ketterings, A. Lembo, and F. Vermeylen (2008). In-field spatial variability of soil test phosphorus and implications for agronomic and environmental phosphorus management. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 136.Place\*, A., Q.M. Ketterings, D. Dewing, and J.R. Lawrence\* (2008). Whole farm Illinois Soil Nitrogen Test (ISNT) assessment in New York. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 137.Dietzel\*, K.A., Q.M. Ketterings, W. Berry\*, and G. Godwin\* (2008). Effects of AlCl<sub>3</sub> and Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> addition to manure on N availability and soil test P increase. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural

Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.

- 138.Swink\*, S.N., Q.M. Ketterings, L.E. Chase, J. Mekken\*, and K.J. Czymmek (2008). Past and future phosphorus balances for agricultural cropland in New York State. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 139.Rao, R., C. Miyamoto\*, Q.M. Ketterings, and K. Dietzel\* (2008). Comparison of plant available sulfur methods on New York soils. Poster presented at the joint meeting of the Canadian Society of Agronomy, Canadian Society of Horticultural Science, Northeastern Branch of the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Montreal, Canada. July 13-16.
- 140.Magidow\*, L.C., A. DiTommaso, Q.M. Ketterings, and L.R. Milbrath (2008). Emergence and performance of pale and black swallow-wort on two New York soils at three pH levels. Weed Science Society of America Abstracts. No. 266. Weed Science Society of America, Lawrence, KS. (Feb. 2008).
- 141.Cherney, D.J.R., J.H. Cherney, Q. Ketterings, M. Davis (2008). Split application of nitrogen on perennial grasses compared to manure applications. 2008 Joint ADSA-ASAS Annual Meeting. Abstract. July 7-11, 2008. Indianapolis, IN.
- 142.Magidow\*, L.C., A. DiTommaso, Q.M. Ketterings, and L.R. Milbrath (2008). Does soil pH influence swallow-wort distribution in its current range? Proceedings of the 62<sup>nd</sup> Annual Meeting of the Northeastern Weed Science Society, 62:21.
- 143.Parsons, D., J. Cherney, Q.M. Ketterings, C.F. Nicholson, R.W. Blake, L. Ramirez-Aviles and L.O. Tedeschi (2007). Effect of farmer decision making on nutrient cycling outcomes in an integrated crop-livestock agro-ecosystem in Yucatan, Mexico. 2007 ASA/SSSA/CSSA meeting, New Orleans, Louisiana, November 4-8, 2007.
- 144.Beegle, D., Q.M. Ketterings, R. Maguire, and J. McGrath (2007). Nutrient management in the Chesapeake Bay Watershed. 2007 ASA/SSSA/CSSA meeting, New Orleans, Louisiana, November 4-8, 2007.
- 145.Lawrence, J.R., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2007). Effectiveness of Illinois Soil Nitrogen Test (ISNT) in corn after sod. 2007 ASA/SSSA/CSSA meeting, New Orleans, Louisiana, November 4-8, 2007.
- 146.Magidow\*, L., A. DiTommaso, Q.M. Ketterings, and L.R. Milbrath (2007). Emergence and performance of pale and black swallow-wort on two New York soils at three pH levels. Weed Science Society of America, 4-6 February, 2008, Chicago, IL.
- 147.Parsons\*, D., J.H. Cherney, Q.M. Ketterings, L. Ramirez-Aviles, R.W. Blake, and C.F. Nicholson (2007). Reversing maize yield decline in shifting cultivation of the Yucatán Peninsula, through weed control and manure management. P. 130. In: (W. Alison, ed.) Proceedings of the 2007 Conf. of the American Forage & Grassland Council and Northeast Branch of the Crop, Soil and Agronomy Society of America, 24-26 June, 2007, State College, PA. AFGC, Elmhurst, IL.
- 148.Dietzel\*, K., R. Rao, and Q.M. Ketterings (2007). A comparison of lime requirement tests for New York soils. Northeastern Branch ASA/SSSA/CSSA meeting, State College, Pennsylvania, June 24-26, 2007.

- 149.Swink\*, S.N., W.J. Cox and Q.M Ketterings (2007). How much can N fertilizer be reduced for corn after soybean in the northeast? Are adjustments needed? Northeastern Branch ASA/SSSA/CSSA meeting, State College, Pennsylvania, June 24-26, 2007.
- 150.Lawrence\*, J.R., S. Bossard, Q.M. Ketterings, G. Godwin\* (2007). Tillage tools for manure incorporation and N conservation. Northeastern Branch ASA/SSSA/CSSA meeting, State College, Pennsylvania, June 24-26, 2007.
- 151.Ketterings, Q.M. J.H. Klapwyk\*, J. Lawrence\*, G. Godwin\* and K.J. Czymmek (2006). Illinois Soil N Test for corn in New York. 2006 ASA/SSSA/CSSA meeting, Indianapolis, Indiana, November 12-16, 2006.
- 152.Haden\*, V.R., Q.M. Ketterings, and J.E. Kahabka\* (2006). Factors affecting the change in soil test P levels of noncalcareous New York soils following manure and fertilizer application. Northeastern Branch ASA/SSSA/CSSA meeting, Philadelphia, Pennsylvania, July 11, 2006.
- 153.Lawrence\*, J.R., Q.M. Ketterings, G. Godwin\*, and K.J. Czymmek (2006). Effect of nitrogen application on yield and quality of first year corn. Northeastern Branch ASA/SSSA/CSSA meeting, Philadelphia, Pennsylvania, July 11, 2006.
- 154.Ketterings, Q.M., C. Rasmussen\*, J.C. Mekken\*, and K.J. Czymmek (2006). Statewide, county-based and whole farm phosphorus balances. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006. Abstract # 14959.
- 155.Czymmek, K.J., and Q.M. Ketterings (2006). The New York CAFO Program; successfully connecting science, policy, regulation, and implementation. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006.
- 156.Hyland\*, C., S. Sato, Z. Lan, Q.M. Ketterings, and J. Lehmann (2006). Properties of phosphorus forms in leachate from soils with long-term manure additions. 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Pennsylvania, July 10-15, 2006.
- 157.Albrecht\*, G., Q.M. Ketterings, K.J. Czymmek, S. Swink\*, G. Godwin\* (2005). It's all about networking: a collaborative approach to applied research and extension. 2005 ASA/SSSA/CSSA meeting, Salt Lake City, Utah, November 6-10, 2005. Abstract # 136-4.
- 158.Woods\*, M.S., F.S. Rossi and Q.M. Ketterings (2005). Potassium content of turfgrass leaves expressed on a tissue water basis. 2005 ASA/SSSA/CSSA meeting, Salt Lake City, Utah, November 6-10, 2005. Abstract #4086.0.0
- 159.Klapwyk\*, J.H., Q.M. Ketterings, and G. Godwin\* (2005). Evaluation of the Illinois soil N test for NY corn production. 2005 ASA/SSSA/CSSA meeting, Salt Lake City, Utah, November 6-10, 2005. Abstract #7607.
- 160.Brock\*, E.H., Q.M. Ketterings and P. Kleinman (2005). Phosphorus leaching and runoff from soils as influenced by type and years of manure application. 2005 ASA/SSSA/CSSA meeting, Salt Lake City, Utah, November 6-10, 2005. Abstract #7593.
- 161.Mekken\*, J.C., Q.M. Ketterings, G.L. Albrecht\*, and K.J. Czymmek (2005). Phosphorus balance in New York State. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9192.
- 162.Albrecht\*, G., Q.M. Ketterings, and K.J. Czymmek (2005). Engaging students and extension audiences in nutrient management through web-based learning modules. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9188.
- 163.Brock\*, E.H., and Q.M. Ketterings (2005). Changes in phosphorus sorption capacity of manure amended soils. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9185.

- 164.Ketterings, Q.M., K.J. Czymmek, D.B. Beegle, and L.E. Chase (2005). Systematic nutrient (im)balances in dairy farm systems of the Northeast and Mid-Atlantic Regions of the United States. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9136.
- 165.Brock\*, E.H., Q.M. Ketterings, and M. McBride (2005). Copper and zinc accumulation in poultry and dairy manure amended soils. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #5913.
- 166.Ketterings, Q.M. and M. Flock (2004). Comparison of Bray-1 and Mehlich-3 tests in high phosphorus soils. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 167.Woods\*, M.S., Q.M. Ketterings and F.S. Rossi (2004). Estimation of cation exchange capacity in sand rootzones. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 168. Woods\*, M.S., Q.M. Ketterings and F.S. Rossi (2004). Potassium supply rates in a calcareous sand rootzone. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 169.Klapwyk\*, J.H., and Q.M. Ketterings (2004). Assessing the Illinois N soil test for New York corn production. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 170.Sato, S., C. Hyland\*, D.M. Solomon, Q.M. Ketterings and C.J. Lehmann (2004). Phosphorus speciation in poultry manure and manure-applied soils using XANES spectroscopy. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 – November 4, 2004.
- 171.Hyland\*, C., C.J. Lehmann, Q.M. Ketterings, Z. Lan, and S. Sato (2004). Forms and distribution of phosphorus leached from manure amended soils. 2004 ASA/SSSA/CSSA meeting, Seattle, Washington, October 31 November 4, 2004.
- 172.Brock\*, E., and Q.M. Ketterings (2004). Phosphorus buildup in manured soils over time. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 173.Klapwyk\*, J.H., and Q.M. Ketterings (2004). Laboratory variability of the Illinois N soil test. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 174.Klapwyk\*, J.H., Q.M. Ketterings, and G.S. Godwin\* (2004). Nitrate and aminosugar N levels of three years of dairy manure and compost application. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 175.Kahabka\*, J.E., Q.M. Ketterings and S.W. Reid (2004). Trends in New York State soil phosphorus fertility. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 176.Albrecht\*, G.L., Q.M. Ketterings, M. E. Van Amburgh, and K.J. Czymmek (2004). It's more than manure! A Whole Farm Nutrient Management Course at Cornell. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 177.Ketterings, Q.M., S. Swink\*, G. Godwin\*, K.J. Czymmek, and G.L. Albrecht\* (2004). The New York Starter Phosphorus Project – Results of three years of on-farm research. 2004 NE ASA/SSSA meetings, Bordentown, New Jersey, July 11-14, 2004.
- 178.Cherney, J.H., Q.M. Ketterings, and J.L. Orloski\* (2003). Reed Canarygrass elemental status above and below ground as influenced by N and K fertilization. 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.

- 179.Woods\*, M.S., F.S. Rossi, and Q.M. Ketterings (2003). Potassium application effects on extractable nonacid cations in a calcareous sand putting green. 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 180.Hyland, C., Z. Lan, J. Lehmann, and Q.M. Ketterings (2003). Phosphorus leaching and organic phosphorus forms in soil after long-term manure applications. 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 181.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware: a tool for nutrient management planning in New York State. 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 182.Ketterings, Q.M., T.F. Kilcer, and J.H. Cherney (2003). Nitrogen and potassium management for brown mid rib sorghum sudangrass – an environmentally sound alternative to corn silage? 2003 ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 183.Ketterings, Q.M. and K.J. Czymmek (2003). Phosphorus test conversions for high phosphorus soils. ASA/SSSA/CSSA meeting, Denver, Colorado, November 2-6, 2003.
- 184.Albrecht\*, G.L., C.N. Rasmussen\*, Q.M. Ketterings, V. Durbal and K.J. Czymmek (2003). Cornell Cropware: a software tool of the Cornell University Nutrient Management Planning System. 2003 NE ASA/SSSA meetings, Burlington, Vermont, June 29-July 2, 2003.
- 185.Klapwyk\*, J.H., W. Deen and Q.M. Ketterings (2003). Temperature fluctuations impacts on the Illinois N soil test. 2003 NE ASA/SSSA meetings, Burlington, Vermont, June 29-July 2, 2003.
- 186.Galens\*, N. and Q.M. Ketterings (2003). Laboratory calibration of the amino sugar-N soil test for New York. 2003 NE ASA/SSSA meetings, Burlington, Vermont, June 29-July 2, 2003.
- 187.Kilcer, T.F., P. Cerosalletti, P. Barney, A. Pell, D. Molina, Q.M. Ketterings and J.H. Cherney (2003). Harvest height management of BMR sorghum-sudangrass in the Northeast. 2003 NE ASA/SSSA meetings, Burlington, Vermont, June 29-July 2, 2003.
- 188.Ketterings, Q.M. (2002). Seasonal variability in soil test results using Morgan and Mehlich-III soil tests in New York. ASA/SSSA/CSSA Annual Meetings in Indianapolis, IN, November 10-14, 2002.
- 189.Ketterings, Q.M., T. Byron\*, K.J. Czymmek, and S. Bossard (2002). Phosphorus dynamics in manure and compost based corn systems in New York State. Paper 1594 of Symposium 57: Soil properties as influence by the addition of organic fertilizers and amendments. 17<sup>th</sup> World Congress of Soil Science in Bangkok, Thailand, August 14-21, 2002. Volume 5 page 1717.
- 190.Kilcer, T.F., Q.M. Ketterings, and P. Cerosaletti (2002). Brown mid rib sorghum sudangrass in NY. NE ASA/SSSA Meetings in Morgantown, WV, July 14-17, 2002.
- 191.Geohring, L.D., T.S. Steenhuis, M.T. Walter, M.F. Walter, Q.M. Ketterings and K.J. Czymmek (2002). Phosphorus risk assessment tool for New York State. In: Phosphorus loss assessment tools. Session 64. 2002 ASAE Annual International Meeting / CIGR XV<sup>th</sup> World Congress. Chicago, Illinois, July 28-July 31, 2002. pp 3-17.
- 192.Ketterings, Q.M., B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman (2001). Is there a Morgan equivalent for Mehlich-III soil tests for New York? ASA/SSSA/CSSA Annual Meetings in Charlotte, NC, October 21-25, 2001.
- 193.Ketterings, Q.M., B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman (2001). Do Modified Morgan and Mehlich-III soil test results have Morgan Equivalents? Abstract Northeast ASA/SSSA Annual meeting, June 24 – 27, Kingston, Rhode Island, USA.

- 194.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (2000). The benefits of a reduction in fallow period. An example from Indonesia. Abstract 2000 ASA, SSSA, ASA Annual meetings, November 5 9, Minneapolis, Minnesota, USA.
- 195.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (1999). Impacts of slash and burn fire intensity on P availability. Abstract 1999 ASA, CSSA, SSSA Annual meetings, October 31 – November 4, Salt Lake City, Utah, USA.
- 196.Ketterings, Q.M., M. Van Noordwijk, and J.M. Bigham (1999). Spatial variability of selected soil properties in broadcast and secondary pile and burn practices in Sumatra, Indonesia. Abstract 1999 ASA, CSSA, SSSA Annual meetings, October 31 – November 4, Salt Lake City, Utah, USA.
- 197. Van Noordwijk, M., B. Lusiana, and Q.M. Ketterings (1999). WaNuLCAS: a model of Water, Nutrient and Light Capture in Agroforestry Systems to evaluate alternatives to slash and burn. Abstract 1999 ASA, CSSA, SSSA Annual meetings, October 31 – November 4, Salt Lake City, Utah, USA.
- 198.Ketterings, Q.M., J.M. Bigham, and V. Laperche (1998). Effects of forest burning on soil mineralogy: results from field experiments in Indonesia. Abstract 1998 ASA, CSSA, SSSA Annual meetings, October 18-22, Baltimore, Maryland, USA.
- 199.Bohlen, P. J., R.W. Parmelee, M.F. Allen, and Q.M. Ketterings (1995). Uptake and redistribution of <sup>15</sup>N by the earthworm, *Lumbricus terrestris*, in soil cores amended with various <sup>15</sup>N-labeled substrates. Ecological Society of America Meeting, Fort Collins, CO, August 1995. Abstract, Bulletin of the Ecological Society of America.
- 200.Ketterings, Q.M., J.M. Blair and J.C.Y. Marinissen (1993). Effects of earthworms on soil aggregates and carbon and nitrogen storage in agro-ecosystems based on legume/rye winter cover crop nitrogen. Ecological Society of America Meeting, Madison, WI, August 1993. Abstract, Bulletin of the Ecological Society of America 74:306.
- **Oral presentations** (not CU course related):

Total	<b>'</b> 19	<b>'</b> 18	<b>'</b> 17	<b>'</b> 16	<b>'</b> 15	<b>'</b> 14	<b>'</b> 13	<b>'</b> 12	<b>'</b> 11	<b>'</b> 10	<b>'</b> 09	<b>'</b> 08	<b>'</b> 07	<b>'</b> 06	<b>'</b> 05	<b>'</b> 04	<b>'</b> 03	<b>'</b> 02	<b>'</b> 01	00-97
429	11	32	33	25	27	28	29	27	24	27	24	26	22	17	18	10	10	10	22	7

Delivered or co-taught by Q.M. Ketterings:

- 1. Ketterings, Q.M. (2019). Whole farm nutrient mass balances. Ben and Jerry Caring Dairy workshops. April 17, 18, 19. Vermont. 55 people. 4 hr per workshop.
- Ketterings, Q.M. (2019). Nutrient management and soil health. Soil Health and Cover Crop Conference. Otsego County Soil and Water Conservation District. SUNY Oneonta, NY. ~25 people. 1 hr.
- 3. Ketterings, Q.M. (2019). Nutrient Boom Research. NRCS meeting with Doug Young. Syracuse, NY. 15 min. ~15 people.
- Ketterings, Q.M. and K.J. Czymmek (2019). Nutrient Management CNMP Training. 2019. NRCS/NYSDAM Water Quality Symposium (4 hours). Syracuse, NY, March 13, 2019. ~25 people.
- 5. Ketterings, Q.M. (2019). Syngenta workshop follow-up session 3. Crop sensors for nitrogen management. Webinar. March 11, 2019. ~15 people. 1 hr.

- 6. Ketterings, Q.M. (2019). Nutrient Management Spear Program Overview. Cornell Cooperative Extension educators. Webinar. February 18, 2019. 30 min. ~10 people.
- Ketterings, Q.M. (2019). Cornell's Experiences with Application of Whole Farm Nutrient Balance Assessments on New York Dairies. Webinar. Multi-State Research Committee S-1074; January 31, 2019. 45 min. ~ 15 people.
- 8. Ketterings, Q.M. and K.J. Czymmek (2019). Know Your Yields! Importance of Accurate Yield Records for (Nutrient) Management for Corn. Central New York Cornell Cooperative Extension Winter Meeting. January 29, 2019. Ithaca, NY. 45 min. ~80 people.
- Ketterings, Q.M. and K.J. Czymmek (2019). Know Your Yields! Importance of Accurate Yield Records for (Nutrient) Management for Corn and Whole Farm Nutrient Efficiency. Operations Manager Conference. PRODAIRY. January 23, 2019. Syracuse, NY. 45 min. ~60 people.
- Ketterings, Q.M. (2019). Know Your Yields! Importance of Accurate Yield Records for (Nutrient) Management for Corn. Annual Producer Partnership Summit. Cazenovia Equipment Company. January 15, 2019. 60 min. ~40 people.
- 11. Ketterings, Q.M. and K.J. Czymmek (2019). Basics of nutrient management. Cayuga County dairy farmers meeting. Sunnyside Farms, Auburn, NY. 3 hrs. ~ 20 people.
- Ketterings, Q.M. (2018). Development of an adaptive management approach for nutrient management in New York. Manitoba Agronomy Conference (MAC). December 12-13. 2018. 45 min. ~400 people.
- Ketterings, Q.M., K.J. Czymmek (2018). The importance of knowing your yields for (nitrogen) management of Corn. Northeast Region Certified Crop Advisor Annual Training & Field Crop Dealer Meetings. East Syracuse. November 29, 2018. 50 min. ~140 people.
- 14. Ketterings, Q.M., K.J. Czymmek (2018). Soil Fertility Basic Training. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 27, 2018. 1hr min. 33 people.
- 15. Ketterings, Q.M. (2018). Syngenta workshop follow-up session 2. Webinar. November 19, 2018. ~15 people. 1.5 hr.
- Ketterings, Q.M. (2018). Animal agriculture and nutrient management for long-term sustainability. ANSC1101 Intro to Animal Science. November 19, 2018. 50 min. ~75 students. Ithaca, NY
- 17. Ketterings, Q.M. and K.J. Czymmek (2018). Adaptive Management. Ag Inservice. November 14, 2018. 2 hr. ~25 people. Ithaca, NY
- Ketterings, Q.M. (2018). Technology and Our Land-Grant University Mission in Nutrient Management: The Power in Partnerships. Digital Ag Initiative Seminar Series. November 13, 2018. 50 min ~15 people. Ithaca, NY.
- Ketterings, Q.M. and K.J. Czymmek (2018). 292-2 Development of an Adaptive Management Approach for Nutrient Management in New York. ASA/SSSA/CSSA Annual Meeting, November 4-7, 2018. Baltimore, Maryland. Abstract and Presentation. 15 min. ~30 people.
- 20. Ketterings, Q.M. (2018). Making use of corn yield data to develop management zones that reflect soil biological buffering capacity; research update. Big Flats Cover Crop and Soil Health Workshop. October 30, 2018. 45 min. ~50 people.
- Ketterings, Q.M. (2018). On-farm research: integrating students with communities. Annual Meeting Cornell Cooperative Extension of Cayuga County. October 25<sup>th</sup>, Auburn NY. 30 min. ~35 people.

- 22. Ketterings, Q.M. and S. Lyons. Double cropping with winter cereals and corn silage or forage sorghum (2018). NESARE Practical Soil Health Training Curriculum, Cropping Systems and Cover Crops. October 23<sup>rd</sup>, 2018. 45 min. ~30 people.
- 23. Ros, M., K.J. Czymmek, and Q.M. Ketterings (2018). Creating nutrient sustainability indicators for dairies nationwide. Cornell Nutrition Conference. October 18, 2018. ~400 people.
- 24. Ketterings, Q.M. and T. Kharel (2018). Decision agriculture: using yield monitor data and technology to improve yield and nitrogen management of corn. Precision agriculture meeting with RIT and UB and Cornell. Rochester, NY. August 30, 2018. 30 min. ~20 people.
- 25. Ketterings, Q.M., and E. Oware (2018). Precision Agriculture Projects. NYFVI board meeting. Ithaca, NY. August 2, 2018. 40 min. ~10 people.
- 26. Ketterings, Q.M. (2018). Know your yields! Importance of accurate yield records for N management algorithms for corn. InfoAg, St Louis, Missouri. July 18, 2018. 40 min. ~150 people.
- 27. Ketterings, Q.M, A. Maresma, T. Kharel, and K.J. Czymmek (2018). Decision Agriculture: Crop sensors for predicting yield and managing nitrogen for corn. Musgrave Research Farm Field Day, July 12, 2018. ~ 165 people. 2 x 25 min.
- 28. Ketterings, Q.M. (2018). Syngenta workshop follow-up session 1. Webinar. July 10, 2018. ~15 people. 1 hr.
- 29. Ketterings, Q.M., M. Ros, and K.J. Czymmek (2018). Nutrient Management Spear Program and whole farm mass balances. Ithaca, NY. July 9, 2018. Summer Animal Sustainability Intern Program. 3 hours. 12 people.
- 30. Ketterings, Q.M. (2018). Nutrient Management for Dairies. Summer Dairy Institute, Ithaca NY. June 26, 2018. 28 students.
- 31. Ketterings, Q.M. (2018). Soil fertility management part 1 (CEC and pH). Syngenta workshop in Bangkok, Thailand. 1 hr. ~30 people. May 31, 2018.
- 32. Ketterings, Q.M. (2018). Soil fertility management part 2 (N, P, and K). Syngenta workshop in Bangkok, Thailand. 1 hr. ~30 people. May 31, 2018
- 33. Ketterings, Q.M. (2018). Soil fertility management part 3 (Micronutrients and field trials). Syngenta workshop in Bangkok, Thailand. 1 hr. ~30 people. June 1, 2018
- 34. Ketterings, Q.M, and K.J. Czymmek (2018). Basic nutrient management. Water Quality Symposium, Syracuse, NY. March 14, 2018. 32 people.
- Lyons, S., Q.M. Ketterings and T. Kilcer (2018). Nitrogen Management of Winter Cereals for Forage in Corn or Sorghum Rotations. Western NY Forage Congress February 29, 2018. ~80 people.
- Ketterings, Q.M., T. Kharel, S.N. Swink, A. Maresma, and K.J. Czymmek (2018). Using Yield Monitor Data to Develop Yield Stability Zones. Western NY Forage Congress February 29, 2018. ~80 people. 1 hr.
- 37. Ketterings, Q.M. (2018). Whole Farm Nutrient Mass Balances: Creating a Nutrient Sustainability Stamp for Dairies. Sustainable Dairy Systems 2018, 3<sup>rd</sup> Annual Cornell Dairy

Center of Excellence Symposium presented in partnership with The David R. Atkinson Center for a Sustainable Future. Ithaca NY. February 22, 2018. 30 min. ~80 people.

- Ketterings, Q.M., T. Kharel, and A. Maresma (2018). UAS and precision ag work at Cornell. UAS 2018 workshop. Rochester Institute of Technology, NY. February 9, 2018. ~25 people. 30 min.
- Ketterings, Q.M., K.J. Czymmek, and S. Lyons (2018). Better soils = better crops. King's Agriseed NY Agronomy Meetings. January 31 (Randolph NY; 45 people), February 1 (Geneva NY; 70 people), February 2 (Richfield Springs, NY; 68 people).
- 40. Ketterings, Q.M. and M. Ros. (2018). Whole farm nutrient mass balances. 2018 Winter Crop Meeting. Cornell Cooperative Extension South Central Dairy and Field Crops Team. Ithaca NY. January 24, 2018. 40 min. 91 people.
- Ketterings, Q.M. (2018). Defining yield management zones based on corn yield data. 2018 Winter Crop Meeting. Cornell Cooperative Extension South Central Dairy and Field Crops Team. Ithaca NY. January 24, 2018. 40 min. 91 people.
- 42. Ketterings, Q.M. and A. Maresma (2018). Use of new technologies to apply N at variable rates, yield map evaluations. Oneida County Crop Congress. Waterville, NY. January 17, 2018. 45 min. ~55 people.
- Ketterings, Q.M. (2018). Using corn yield data to develop yield stability zones (2018). Western NY Corn Congress. Batavia (317 people) and Waterloo (235) people). January 10 and 11, 2x30 min.
- 44. Evans, K., R. Maguire, P. Kleinman, A. Allen, A. Shober, J. Long, J. McGrath (2017). Project Spotlight: Subsurface Application of Manures in the Chesapeake Bay Basin. NFWF Project Presentation by Webinar. December 19, 2017. 21 attendees.
- 45. Ketterings, Q.M., K.J. Czymmek, and M. Ros (2017). Phosphorus index project update. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 28, 2017. 50 min. 53 people.
- Ketterings, Q.M., K.J. Czymmek, and M. Ros (2017). Phosphorus index project update. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 30, 2017. 50 min. 27 people.
- 47. Ketterings, Q.M, T. Kharel, A. Maresma Galindo, M. Ros, and K.J. Czymmek (2017). Nutrient Management Spear Program Updates. Agricultural InService. November 13, 2017. Ithaca NY. 2 hours. About 20 participants.
- Maresma Galindo, A., and Q.M. Ketterings (2017). <u>In-Field Variability of Illinois Soil</u> <u>Nitrogen Test and Loss-on-Ignition for Nitrogen Management.</u> ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract. Delivered by A. Maresma Galindo.
- Lyons, S.E., Z. Tang, J. Booth and Q.M. Ketterings (2017). <u>Comparison of Statistical Approaches to Determine Nitrogen Needs of Winter Cereals.</u> ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract. Delivered by S.E. Lyons.
- Crittenden, S.J., Q.M. Ketterings and K. Dietzel (2017). <u>Impact of Phosphorus Source on Soil</u> <u>Test Phosphorus Increase</u>. ASA/SSSA/CSSA Annual Meeting, October 23, 2017. Tampa, Florida. 15 min. Talk and abstract. Delivered by Q.M. Ketterings.
- 51. Ketterings, Q.M., S. Cela, K.J. Czymmek, C.N. Rasmussen and M. Soberon (2017). Improvements in Whole Farm Nitrogen and Phosphorus Balances on Dairy Farms in New

<u>York.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. 15 min. Talk and abstract. Delivered by Q.M. Ketterings.

- 52. Kharel, T.P., E.A. Long, S.D. DeGloria, and Q.M. Ketterings (2017). <u>Quadrant Count</u> <u>Method to Quantify within Field Variability of Corn Silage on Three New York Farms.</u> ASA/SSSA/CSSA Annual Meeting, October 25, 2017. Tampa, Florida. 15 min. Talk and abstract. Delivered by T.P. Kharel.
- Ketterings, Q.M. (2017). Whole farm nutrient mass balances; sustainability stamps for the dairy industry in NY. Environmental Defense Funds Nitrogen meeting. September 25, 2017. 10 min. ~25 people. Washington DC. Invited speaker. Delivered by Zoom.
- 54. Ketterings, Q.M., A. Maresma, B. Rogers, E. Shields, D. Specker, K.J. Czymmek (2017). Decision agriculture: Managing nitrogen and yield in corn and forage sorghum utilizing drone NDVI imaging. Aurora, NY. Musgrave Research Farm Field Day. July 13, 2017. 25 min. Total registered: 142.
- Lyons, S., N. Luijben, Q.M. Ketterings (2017). Double crop rotations with winter cereals and corn silage or forage sorghum. Aurora, NY. Musgrave Research Farm Field Day. July 13, 2017. 25 min. Total registered: 142.
- 56. Ketterings, Q.M. (2017). Nutrient Management Spear Program. Delaware County Student Interns. Ithaca, NY. July 12, 2017. 1 hour. 10 people.
- 57. Ketterings, Q.M. (2017). What keeps us from increasing forage yield? John Deere Regional Meeting, Oakfield, NY. July 11, 2017. 45 min. ~40 people.
- 58. Ketterings, Q.M., M. Ros, and K.J. Czymmek (2017). Nutrient Management Spear Program and whole farm mass balances. Ithaca, NY. July 10, 2017. Summer Animal Sustainability Intern Program. 3 hours. 12 people.
- 59. Ketterings, Q.M. (2017). Sensors to improve nitrogen fertilization in corn. Dupont Pioneer meeting at Phelps, NY. June 23, 2017. 30 min. ~15 people.
- 60. Ketterings, Q.M., and M. Ros (2017). Whole Farm Mass Nutrient Balances Training. Delaware County Cornell Cooperative Extension. May 24, 2017. 3 hours. 5 people.
- 61. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Nutrient Balances and P Index Assessment. Connecticut. April 28, 2017. Webinar. 1 hour. 4 people.
- 62. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Balances Assessments. Upper Susquehanna Watershed Coalition. April 9, 2017. 24 people. 2 hours.
- 63. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Nutrient Balances and P Index Assessment. Pennsylvania, New York, Connecticut, Massachusetts. April 7, 2017. Webinar. 1 hour. 14 people.
- 64. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Nutrient Balances Sustainability Stamp for Dairy Farming. DairyOne meeting with Newtrient. Webinar. April 6, 2017. 2 hours. 10 people.
- 65. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Nutrient Balances and P Index Assessment. Vermont. April 3, 2017. Webinar. 1 hour. 5 people.
- 66. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Nutrient Balances and P Index Assessment. Champlain Valley Ag and Miner Institute Meeting. Chazy, NY. March 31, 2017. 3 hours. 6 people.
- 67. Ketterings, Q.M. (2017). Whole Farm Mass Nutrient Balances. Sustainability Stamp for Dairy Farming. Land-O-Lakes visit to Ithaca. March 23, 2017. 20 min. 6 people.
- 68. Ketterings, Q.M. and K.J. Czymmek (2017). Whole Farm Mass Balances Assessments. Western New York Crop Management Association. March 22, 2017. 15 people. 2 hours.

- 69. Ketterings, Q.M. and K.J. Czymmek (2017). Nutrient Management CNMP Training. 2017. NRCS/NYSDAM Water Quality Symposium (4 hours). Syracuse, NY, March 15, 2017. 25 people.
- Ketterings, Q.M., and K.J. Czymmek (2017). Whole farm nutrient mass balances for dairies in New York; nutrient sustainability stamp. NYCO meeting. Geneva, NY. March 13. 75 min. ~50 people.
- 71. Ketterings, Q.M. (2017). Whole farm nutrient management; Creating a nutrient sustainability stamp in partnership with farmers, farm advisors, governmental agencies, agricultural industry, and students. Land-O-Lakes visit. Ithaca, NY. 20 min. 7 people.
- 72. Ketterings, Q.M. (2017). Whole farm nutrient mass balances workshop with Agricultural Consulting Service. Dairy One, Ithaca, NY. 2 hours. ~20 people.
- 73. Ketterings, Q.M. (2017). Guidance for growing BMR dwarf brachytic forage sorghum in NNY. Crop Congress. Canton, NY. February 2. 30 min. ~50 people.
- 74. Ketterings, Q.M. (2017). Double cropping with winter forages and update on sorghum silage research. Crop Congress. Miner Institute. February 1. 1 hour. ~50 people.
- 75. Ketterings, Q.M, and D. Specker (2017). Corn nitrogen management in extreme weather conditions. Western NY Corn Congress. Batavia (317 people) and Waterloo (203 people). January 11 and 12, 2x30 min.
- Ketterings, Q.M., Sadeghpour, A., G. Godwin and K.J. Czymmek (2017). Research update: N<sub>2</sub>O emissions from corn and alfalfa/grass. Empire Chapter Soil and Water Conservation Society Annual Meeting. Auburn, NY. 30 min. ~60 people.
- Ketterings, Q.M., K.J. Czymmek, and S. Crittenden (2016). Phosphorus Index project update. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 29-December 1, 2016. 2x50 min. 99 people.
- 78. Tagarakis, A., L. Chamberlain, and Q.M. Ketterings (2016). Greenseeker and drone NDVI project results for corn and forage sorghum. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 29-December 1, 2016. 2x50 min. 60 people.
- Sadeghpour, A., K.J. Czymmek and Q.M. Ketterings (2016). Tagarakis, A., L. Chamberlain, and Q.M. Ketterings (2016). Greenseeker and drone NDVI project results for corn and forage sorghum. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 29-December 1, 2016. 2x50 min. 90 people.
- Kilcer, T., S. Lyons and Q.M. Ketterings (2016). Triticale and forage sorghum rotations. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. November 29-December 1, 2016. 2x50 min. 85 people.
- Ketterings, Q.M., and K.J. Czymmek (2016). <u>Extending the growing season to improve farm</u> <u>nutrient budgets</u>. ASA/SSSA/CSSA meeting, Phoenix, Arizona, November 6-10, 2016. Oral Presentation and Abstract. 20 min. ~75 people.
- 82. Ketterings, Q.M., and K.J. Czymmek (2016). Phosphorus fertility field strip trials in New York. SERA17 Annual Meeting. Phoenix, Arizona, November 11, 2016. 30 min. ~75 people.
- 83. Ketterings, Q.M., and S.E. Lyons (2016). Dilemmas and solutions for planting and harvesting winter cereals grown as double crops in corn silage or sorghum rotations. Cover Crop and Soil Health Workshop and Tour. Big Flats Plant Materials Center, Big Flats, NY. November 4, 2015. 45 min. ~120 people.
- 84. Lyons, S.E., and Q.M. Ketterings (2016). Double crop rotations with winter cereals and corn silage or forage sorghum. Cornell Nutrition Conference. October 20, 2016. 40 min. 465 pre-registered.

- 85. Ketterings, Q.M., A. Tagarakis, E. Shields, S. Lyons, L. Chamberlain, and C. Liu (2016). Crop sensing for nitrogen management and yield predictions. Aurora Field Day. July 14, 2016. 164 people in total for the day. Two 20 min sessions.
- 86. Ketterings, Q.M., K. Czymmek, A. Sadeghpour, S. Hetrick, and Q.M. Ketterings (2016). Tracking soil changes from long-term manure applications. Aurora Field Day. July 14, 2016. 164 people in total for the day. Two 25 min sessions.
- 87. Ketterings, Q.M., S. Cela, K.J. Czymmek, and S. Crittenden (2016). Developing a new P index for New York with stakeholder input. Phosphorus index meeting with OMAFRA, Canada. June 16, 2016. ~10 people. 1 hr.
- 88. Ketterings, Q.M., S. Cela, K.J. Czymmek, and S. Crittenden (2016). Developing a new P index for New York with stakeholder input. 2016 International Association of Great Lakes Research (IAGLR) conference, Guelph, ON, June 6-10, 2016. ~50 people. 30 min.Ketterings, Q.M., K.J. Czymmek, S. Cela and S. Crittenden (2016). New York P index Stakeholder input session. Canton, NY. April 12, 2016. 18 people. 4 hours.
- 89. Ketterings, Q.M., K.J. Czymmek, S. Cela and S. Crittenden (2016). New York P index Stakeholder input session. Walton, NY. April 7, 2016. 25 people. 4 hours.
- 90. Ketterings Q.M., and K.J. Czymmek (2016). P index evaluation for New York. 15 people. 30 min. Tabaco Barn Meeting, Lexington, KY. March 29, 2016.
- 91. Ketterings, Q.M. (2016). Nitrogen management tools. Cazenovia, NY. March 16, 2016. 74 people. 45 min.
- 92. Ketterings, Q.M., K.J. Czymmek, S. Cela and S. Crittenden (2016). New York P index Stakeholder input session. Canton, NY. March 11, 2016. 15 people. 4 hours.
- 93. Ketterings, Q.M. (2016). Deriving a whole farm nutrient mass balances for your dairy farm. Ben and Jerry's Caring Dairies seminar. March 2, 2016. ~30 people. 60 min. Webinar 2.
- 94. Ketterings, Q.M., K.J. Czymmek, S. Cela and S. Crittenden (2016). New York P index Stakeholder input session. Warsaw, NY. February 26, 2016. 15 people. 4 hours.
- 95. Ketterings Q.M. (2016). Northern New York crops research & tips to enhance 2016 production success. NNYADP. February 12, 2016. Watertown, NY. ~30 people. 45 min.
- 96. Ketterings, Q.M. (2016). Whole farm nutrient mass balances for improvements in agriculture and environmental management of dairy farms. Ben and Jerry's Caring Dairies seminar. February 10, 2016. ~30 people. 60 min. Webinar 1.
- 97. Ketterings, Q.M., S. Cela, M. Soberon, C. Rasmussen, S. Crittenden, and K.J. Czymmek (2016). Whole farm nutrient mass balances for improvements in agriculture and environmental management of dairy farms. Center for Dairy Excellence Seminar Series. February 8, 2016. ~30 people. 50 min.
- 98. Ketterings Q.M. (2016). Northern New York crops research & tips to enhance 2016 production success. NNYADP. February 5, 2016. Miner Institute, Chazy, NY. ~40 people. 45 min.
- Ketterings, Q.M., K.J. Czymmek, S. Cela, and S. Crittenden (2016). Phosphorus index update from New York. NRCS-CIG nationwide project. Webinar invited by Andrew Sharpley. ~10 people. 60 min.
- 100.Ketterings, Q.M., and K.J. Czymmek (2016). Nutrient management for dairy sustainability. Collaborative meeting with Wageningen University. February 1, 2016. 12 people. 10 min.
- 101.Ketterings, Q.M., S. Cela, M. Soberon, C. Rasmussen, S. Crittenden, and K.J. Czymmek (2016). Whole farm nutrient mass balances for improvements in agriculture and environmental management of dairy farms. The Northeastern Plant, Pest, and Soils

Conference. 2016. Philadelphia, PA. January 3-7, 2016. Abstract and oral presentation. 12 min. 25 people.

- 102.Ketterings, Q.M., K.J. Czymmek, S. Cela, and S. Crittenden (2015). Phosphorus Index update; new ideas for New York. Northeast Region Certified Crop Advisor annual Training. December 1 and 2, 2015. East Syracuse, NY. 2x50 min. 89 people.
- 103.Kilcer, T., J. Hanchar, S. Lyons, and Q.M. Ketterings (2015). Winter cereals double cropping for forage – management and economics. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 1 and 2, 2014. 2x50 min. 87 people.
- 104. Tagarakis, A., J. Cawley, Q.M. Ketterings and K.J. Czymmek (2015). Crop sensors for corn; development of a NY algorithm and farmer experiences. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 2, 2015. 2x50 min. 74 people.
- 105.Sadeghpour, A., Q.M. Ketterings, G. Godwin, and K.J. Czymmek (2015). Managing N, P, soil health, and air emissions with manure, compost, and pre-plant and sidedress N. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 3, 2015. 2x50 min. 39 people.
- 106.Ketterings, Q.M. (2015). Nutrient management practice questions. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 37 people.
- 107.Ketterings, Q.M. (2015). Soil testing and plant analyses. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 37 people.
- 108.Lyons, S. Q.M. Ketterings, S. Ort, G. Godwin, K.J. Czymmek, S. Swink and T.F. Kilcer (2015). Double Cropping of Corn Silage Rotations with Winter Cereals As Forage Crop. Corn Stalk Nitrate Test (CSNT); Developing a Sampling Protocol Based on within-Field Spatial Variability and Yield Zones. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by S. Lyons.
- 109. Tagarakis, A.C., Q.M. Ketterings, K.J. Czymmek, M. Stanyard and M. Hunter (2015). Evaluation of Crop Sensor Algorithms for on-the-Go Variable Rate N Application for Corn in NY. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Tagarakis.
- 110.Cela, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2015). Nutrient Mass Balances Trends for Dairy Farms in New York and in the Upper Susquehanna Watershed. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by Q.M. Ketterings.
- 111.Ketterings, Q.M., S.J. Crittenden, S. Cela, and K.J. Czymmek (2015). Evaluation of the New York Phosphorus Index. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by Q.M. Ketterings.
- 112.Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2015). Impact of Manure and Compost Management on Soil Test Phosphorus Buildup and Drawdown in a Corn-Alfalfa Rotation. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Sadeghpour.

- 113.Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2015). Greenhouse Gas Emissions from Nitrogen- vs Phosphorus-Based Manure and Compost Management of Grain Corn. Abstract and oral presentation. Annual Conference of the Agronomy, Soil and Crop Science Societies of America. Minneapolis, MN. November 15-18, 2015. Presented by A. Sadeghpour.
- 114.Ketterings, Q.M. (2015). Whole farm nutrient balances; what do they say? Field Crop Dealer Meetings. November 11, 2015. Syracuse, NY. 40 min. ~80 people.
- 115.Ketterings, Q.M., S. Lyons, and A. Sadeghpour (2015). Nitrogen needs for winter cereals grown in corn rotations; rates, crop response, and economics; and impact of nitrogen versus phosphorus-based applications of manure and compost on soil health indicators. Cover Crop and Soil Health Workshop and Tour. Big Flats Plant Materials Center, Big Flats, NY. November 6, 2015. 45 min. ~120 people.
- 116.Ketterings, Q.M. (2015). Tightening nutrient cycles for dairy farms: cover crops, double crops, and whole farm balances. Stockbridge School of Agriculture, University of Massachusetts-Amherst, CT. October 5, 2015. 1 hr. ~25 people.
- 117.Ketterings, Q.M. (2015). Whole farm balances. SAI Platform Meeting in NY. Cayuga Milk Ingredients Plant, Auburn, NY. September 2, 2015. 15 min. ~20 people.
- 118.Czymmek, K.J., A. Tagarakis, A. Sadeghpour, and Q.M. Ketterings (2015). Aurora Field Day. Nutrient Management Topics. July 17, 2015. Aurora, NY. 2x30 min. 153 people.
- 119.Cela S., M. Soberon, C.N. Rasmussen, K.J. Czymmek, J. Burke, R. Jerauld, A. Ristow and Q.M. Ketterings (2015). Nutrient Mass Balances: Definition, importance, feasible levels and trends over time. Nutrient Reduction Workgroup USC Final Wrap-up Meeting. Cortland, NY. April 29, 2015. ~30 people.
- 120.Ketterings, Q.M. (2015). Precision agriculture for corn; applied research and extension. Precision Agriculture NYFVI Meeting. Syracuse, NY. March 5, 2015. 10 min. ~50 people.
- 121. Tagarakis, A.C., Q.M. Ketterings, K. Czymmek, J. Cawley, W. Verbeten, M. Hunter (2015). Corn yield potentials & sensing technologies for on the go nitrogen application. Northern NY Crop Congress. Chazy (~50 people) and Lowville (~50 people). January 17 and 18, 2x45 min.
- 122.Ketterings, Q.M. (2015). Managing nitrogen for winter cereals grown as double crops for forage. Otsego Soil Health and Cover Crop Workshop, Cooperstown, February 11, 2015. 45 min. ~30 people.
- 123.Ketterings, Q.M., R.R. Mathur (2015). Corn stalk nitrate test: Sampling and laboratory analyses. International Soil and Plant Analysis Council Meeting, Kona, Hawaii. January 29, 2015. 15 min. ~80 people.
- 124. Tagarakis, A.C., Q.M. Ketterings, K. Czymmek, J. Cawley, W. Verbeten, M. Hunter (2015). Corn yield potentials & sensing technologies for on the go nitrogen application. Western NY Corn Congress. Batavia (335 people) and Waterloo (242 people). January 14 and 15, 2x30 min.
- 125.Ketterings, Q.M. (2015). Manure management for large and small farms. Southern Tier Crop Congress. Belfast, NY. January 9, 2015. 45 min. ~35 people.
- 126.Ketterings, Q.M. (2015). Alfalfa field revisited. Soil pH, sulfur potassium and cation exchange capacity. Southern Tier Crop Congress. Belfast, NY. January 9, 2015. 45 min. ~35 people.
- 127.Ketterings, Q.M. and K.J. Czymmek (2015). Corn yield potential and corn stalk nitrate test. Oneida County Crop Congress. Clinton, NY. January 7, 2015. 30 min. ~60 people.

- 128.Ketterings, Q.M., Cela, S., and K.J. Czymmek (2015). Whole Farm Nutrient Mass Balances; Benchmarking. Oneida County Crop Congress. January 7, 2015. 30 min. ~60 people.
- 129.Ketterings, Q.M. (2014). Sulfur management. Helena winter grower meeting. Lyndonville, NY. December 12, 2014. 25 min. ~60 people.
- 130.Ketterings, Q.M. and K.J. Czymmek (2014). Corn Yield Potential and Yield Reality; Connection to N Needs. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 3, 2014. 2x50 min.
- 131.Cela, S., K.J. Czymmek and Q.M. Ketterings (2014). Whole Farm Nutrient Mass Balances; Benchmarking. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 3, 2014. 50 min.
- 132.Kilcer, T., J. Liebert, and Q.M. Ketterings (2014). Integrating Nutrient Management and Forage Production with Double Cropping. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 2, 2014. 50 min.
- 133.Beegle, D., S. Cela, Q.M. Ketterings, and K.J. Czymmek (2014). P Index; Beyond States. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 2, 2014. 2x50 min.
- 134.Cawley, J., W. Verbeten, A. Tagarakis and Q.M. Ketterings (2014). Using Technological Advances to Manage Within Field Variability. Northeast Region Certified Crop Advisor Annual Training. East Syracuse. December 3, 2014. 2x50 min.
- 135.Ketterings, Q.M. (2014). Nutrient management practice questions. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 32 people.
- 136.Ketterings, Q.M. (2014). Soil testing and plant analyses. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 32 people.
- 137.Ketterings, Q.M., and K. J. Czymmek (2014). Phosphorus research update. Cornell P research meetings, Ithaca NY. 30 min. 6 people.
- 138.Ketterings, Q.M. (2014). Improving Operational Practices to Increase Profits and Protect the Environment. NYFVI Take Stock. November 24, 2014. Albany, NY. 10 min. ~100 people.
- 139.Ketterings, Q.M. and S. Cela (2014). Whole farm mass balances; why we should care. Soil and Water Conservation Society Empire Chapter Annual Meeting. Auburn, NY. November 21, 2014. 30 min. ~45 people.
- 140.Ketterings, Q.M. and S. Cela (2014). New York Phosphorus Index; what planners really think. Soil and Water Conservation Society Empire Chapter Annual Meeting. Auburn, NY. November 21, 2014. 30 min. ~45 people.
- 141.Ketterings, Q.M. and team (2014). Nutrient Management Update. Ag Inservice. Ithaca, NY. November 18, 2014. 120 min. ~20 people.
- 142.Ketterings, Q.M. (2014). Alfalfa field revisited. Soil pH, sulfur and cation exchange capacity. Field Crop Dealer Meetings. Syracuse, NY. November 12, 2014. 30 min. ~80 people.
- 143.Liebert, J., M. Ryan, and Q.M. Ketterings (2014). Trade-Offs Between Forage Quality and Yield of Winter Cereals Grown As Forage in Double-Cropping Systems. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 124-4. Oral Presentation and Abstract.

- 144.Ryan, M., B. Caldwell, A. DiTommaso, L. Drinkwater, C. Marschner, C.L. Mohler and Q.M. Ketterings (2014). Agronomic Performance in the Cornell Organic Grain Cropping Systems Experiment. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 209-6. Oral Presentation and Abstract.
- 145.Cela, S., Q.M. Ketterings, K.J. Czymmek, M. Soberon and C. Rasmussen (2014). Evolution of N and P Mass Balances over Time on Four Dairy Farms in NY. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 353-1 Oral Presentation and Abstract.
- 146.Sadeghpour, A., Q.M. Ketterings, G. Godwin and K.J. Czymmek (2014). Nitrogen- versus Phosphorus-Based Manure and Compost Management of Corn. ASA/SSSA/CSSA meeting, Long Beach, California, November 2-5, 2014. 323-3. Oral Presentation and Abstract.
- 147.Ketterings Q.M. and S. Cela (2014). Whole-farm nutrient mass balance benchmarks for New York dairies. Cornell Nutrition Conference. Syracuse, NY. October 23, 2014. 40 min. ~200 people.
- 148.Ketterings, Q.M. (2014). Sulfur and potassium management of alfalfa. Valatie Research Farm Field Day. August 19, 2014. Valatie, NY. 20 min. ~35 people.
- 149.Ketterings, Q.M. and S. Cela (2014). Results of the NY P index survey. Allegany Plateau expert panel meeting, April 8, 2014. 20 min. ~20 people.
- 150.Ketterings Q.M. (2014). Cover/Double Crops. Cornell Cooperative Extension of Delaware County Crop School. March 18, 2014. 15 min. ~25 people.
- 151.Ketterings Q.M. (2014). Nutrient Management Update. NNYADP. February 28, 2014. Chazy, NY. 15 min. ~30 people.
- 152.Ketterings Q.M. (2014). Fall N uptake and spring N credits from cover crops seeded after corn silage. 2014 Otsego County Soil & Water Conservation District Cover Crop and Soil Health Workshop. February 26, 2014. Cooperstown, NY. 30 min. ~35 people.
- 153.Ketterings Q.M. (2014). Winter cereals as double crops for forage. 2014 Otsego County Soil & Water Conservation District Cover Crop and Soil Health Workshop. February 26, 2014. Cooperstown, NY. 30 min. ~35 people.
- 154.Ketterings, Q.M. (2014). Reduced risk of forage shortages with double-cropping. Northern New York Crop Congress. February 19, Canton, NY. 60 min. ~50 people.
- 155.Ketterings, Q.M. (2014). Reduced risk of forage shortages with double-cropping. Northern New York Crop Congress. February 18, Chazy, NY. 45 min. ~50 people.
- 156.Ketterings Q.M. (2014). Nutrient Management Update. NNYADP. January 31, 2014. Watertown, NY. 15 min. ~40 people.
- 157.Ketterings, Q.M. (2014). Nitrogen rates and application and timing studies. Winter Crop Meeting, Cornell Cooperative Extension South Central NY (SCNY) Dairy and Field Crops Program. January 17, 2014. Ithaca NY. 30 min. ~100 people.
- 158.Ketterings, Q.M., S. Ort, and B. Verbeten (2013). Winter cereals as double crops in corn rotations. Experiences from the 2013 growing season. Field Crop Dealer Meetings, December 12, 2013. Syracuse, NY. 40 min. ~60 people.
- 159.Ketterings, Q.M., S. Ort, and B. Verbeten (2013). Managing nitrogen for winter cereals grown as double crop for forage. Northeast Region Certified Crop Advisor Annual Training. Advanced Training. December 5, 2013. Syracuse, NY. 50 min. 42 people.
- 160.Czymmek, K.J., S. Cela, and Q.M. Ketterings (2013). P index: 10+ years. What works? What doesn't? What's next? Northeast Region Certified Crop Advisor Annual Training. Advanced Training. December 3 and 4, 2013. Syracuse, NY. 2\*50 min. 100 people.

- 161.Ketterings, Q.M. (2013). Nutrient management practice questions. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 32 people.
- 162.Ketterings, Q.M. (2013). Soil testing and plant analyses. Northeast Region Certified Crop Advisor Annual Training. Basic Training. December 4, 2013. Syracuse, NY. 45 min. 32 people.
- 163.Ketterings Q.M. (2013). Sulfur management for field crops. Mid-Atlantic Region Certified Crop Advisor conference. November 21, 2013. Ocean City, Maryland. ~50 people. 1.3 hours.
- 164.Ketterings, Q.M. and team (2013). Nutrient management update. 2013 Agricultural Inservice. Ithaca, NY. November 19, 2013. ~20 people. 2 hours.
- 165.Ketterings, Q.M. (2013). Winter-Forage Small Grains to Boost Feed Supply: From Cover Crop to Double Crop. Big Flats Plant Material Center 5<sup>th</sup> Annual Cover Crop Workshop. Big Flats, NY, November 14, 2013. ~130 people. 45 min.
- 166.Ketterings, Q.M. (2013). Extension and Knowledge Transfer; Adaptive Management Approaches for Timely Impact. ASA/SSSA/CSSA meeting, Tampa, Florida, November 3-6, 2013.
- 167.Ketterings, Q.M. (2013). Corn stalk nitrate test research at Cornell University. NECC-1312 Annual Meeting. Milford, PA. 15 people.30 min.
- 168.Ketterings, Q.M. (2013). Double crops. Discussion group large herd group Oneida County. Oriskany, NY. August 22, 2013. 10 people. 2.5 hours.
- 169.Ketterings, Q.M. (2013). Adaptive Nutrient Management. July 21, 2013. Webinar ASA Program. The 4R Approach to Soil and Water Quality Summer 2013. 2 hours.
- 170.Ketterings, Q.M. and K. Ganoe (2013). Nitrogen management of corn. Field Day at Hoffman Farm, Greene, NY. July 20, 2013. 3 hours. ~25 people.
- 171.Ketterings, Q.M, K.J. Czymmek, and S. Potter (2013). Nutrient management update. Musgrave Research Farm Field Day, Aurora, NY. July 18, 2013. 2x20 min ~80 people.
- 172.Ketterings, Q.M., G. Godwin\*, S.N. Swink\* and K.J. Czymmek (2013). Can manure replace the need for starter N fertilizer for corn. Abstract #78260. NEBCSA Annual Meeting 2013. Newark, DE, June 23-26, 2013.
- 173.Morris, T., Q.M. Ketterings, and J. Camberato (2012). Getting More Bang for Your Buck from Adaptive Nutrient Management - Helping Farmers Improve Nutrient Use Efficiency. NRCS Webinar. May 23, 2013. 152 people. 1 hr. Invited talk.
- 174.Ketterings, Q.M., and K.J. Czymmek (2013). Nutrient Management CNMP Training. 2013. NRCS/NYSDAM Water Quality Symposium (4 hours). Auburn, NY, March 13, 2013. Invited speakers. 8 people.
- 175.Ketterings, Q.M., and K.J. Czymmek (2013). Advanced Nutrient Management Workshop.
  2013. NRCS/NYSDAM Water Quality Symposium (1 hour). Auburn, NY, March 13, 2011.
  Invited speakers. ~35 people.
- 176.Ketterings, Q.M. (2013). Cover Crops Performance in Research Trials. 2013 Winter Crop Meeting. Cornell Cooperative Extension Cayuga County. Auburn, NY. March 6, 2013. 75 min. ~ 25 people. Invited.
- 177.Ketterings, Q.M. and K.H. Czymmek (2013). Corn nitrogen management meeting. Oneonta, NY. Feb 15, 2013. 10 participants. 4 hours.
- 178.Ketterings, Q.M. (2013). Corn nitrogen management meeting. Hamilton, NY. Feb 6, 2013. 15 participants. 4 hours.

- 179.Ketterings, Q.M., and B. Erickson (2013). Adaptive Nutrient Management. January 31, 2013. Webinar ASA Program. The 4R Approach to Soil and Water Quality - Winter 2013. 2 hours. 106 people registered.
- 180.Ketterings, Q.M. (2013). Fertilizers and manure. Oneida County Cornell Cooperative Extension Advisory Group Meeting. Skype meeting. January 24, 2013. 2 hours. ~ 10 people.
- 181.Ketterings, Q.M. (2013). Cover Crops Performance in Research Trials. 2013 Winter Crop Meeting. Cornell Cooperative Extension South Central NY Dairy and Field Crops Program. Ithaca, NY. January 23, 2013. 45 min. ~ 75 people. Invited.
- 182.Ketterings Q.M. and K.J. Czymmek (2013). Manure application method and rate studies. Cornell Cooperative Extension South Central NY Dairy and Field Crops Program. Ithaca, NY. January 23, 2013. 30 min. ~ 75 people. Invited.
- 183.Ketterings Q.M. and K.J. Czymmek (2013). Nitrogen management of corn; proposed adaptive management approach for the 21<sup>st</sup> century. ACS farm planners group. Ithaca NY. January 21, 2013. ~15 people
- 184.Ketterings Q.M. (2013). Yield monitors, manure and fertilizer management for corn. Corn congress. January 16 and 17, 2013. Batavia and Waterloo, NY. 2x30 min. 685 people (436 in Batavia, 247 in Waterloo; 507 producers and 176 industry reps).
- 185.Ketterings, Q.M. (2013). Nitrogen management of field crops. Oneida County Corn Congress. January 11, 2013. 45 min. ~75 people.
- 186.Ketterings Q.M. (2012). NY On-Farm Research Partnership: Working together on research for greater impact at farm and state levels. Capital District Agriculture and Horticulture Program (CCE); Improve Your Business with On-Farm Research (Winter Meeting). Latham, NY, December 18, 2013. 45 min. ~25 people.
- 187.Ketterings Q.M. and K.J. Czymmek (2012). Nitrogen management of corn; proposed adaptive management approach for the 21<sup>st</sup> century. Northern New York consultants. Waterloo, NY. December 10, 2013. 10 people
- 188.Ketterings Q.M, and K.J. Czymmek (2012). Adaptive management for corn. 2012 Northeast Region Certified Crop Advisors Annual Training. November 28, 2012. Syracuse, NY. 2x50 min. 73 CCAs.
- 189.Ketterings, Q.M. (2012). Nutrient management practice questions. Northeast Region Certified Crop Advisor Annual Training. Basic Training. November 28, 2012. Syracuse, NY. 45 min. 23 people.
- 190.Ketterings, Q.M. (2012). Soil testing and plant analyses. Northeast Region Certified Crop Advisor Annual Training. Basic Training. November 28, 2012. Syracuse, NY. 45 min. 23 people.
- 191.Ketterings, Q.M. (2012). Winter-Forage Small Grains to Boost Feed Supply: From Cover Crop to Double Crop. Big Flats Plant Material Center 4<sup>th</sup> Annual Cover Crop Workshop. Big Flats, NY, November 15, 2012. ~100 people.
- 192.Ketterings, Q.M., and B. Erickson. Adaptive Nutrient Management. November 13, 2012.
  Webinar ASA Program. The 4R Approach to Soil and Water Quality Fall 2012. 2 hours. ~47 people.
- 193.Ketterings, Q.M. (2012). Nutrient Management Update. Ag Inservice 2012. November 12, 2012. Ithaca, NY. 1.5 hours. ~25 people
- 194.Ketterings, Q.M, J. Spargo, and J. Meisinger (2012). Soil Tests for Nitrogen Recommendations for Corn. Abstract 188-3. ASA/SSSA/CSSA Annual Meeting. Cincinnati, OH. October 21-25, 2012.

- 195.Ketterings, Q.M. (2012). Cover crops in corn rotations; quick update on current status of research projects and plans for next spring. Tillage and cover crop field day in Steuben County. Wayland, NY. September 27<sup>,</sup> 2012. 10 min. ~40 people.
- 196.Ketterings, Q.M. (2012). Sulfur needs of alfalfa; tools for management. Joint Meeting of the Regional Soil Testing Workgroups North Central region (NCERA-13), Southeastern region (SERA-6), and Northeastern region (NECC-1012), Madison, WI, August 27-29, 2012. 30 min. ~70 people.
- 197.Ketterings, Q.M., and K.J. Czymmek (2012). Sulfur management of alfalfa. Joint North American Alfalfa Improvement Conference/Trifolium Conference/Grass Breeders Group. July 13, 2012. ~100 people. 15 min. Invited talk.
- 198.Ketterings, Q.M. and K.J. Czymmek (2012). Extension and knowledge transfer; effective partnerships for timely impact. 17<sup>th</sup> International Nitrogen Workshop. Wexford, Ireland. July 24-29, 2012. 300 people. 30 min. Invited talk.
- 199.Ketterings, Q.M. (2012). Cover crops in corn rotations. Valatie Research Farm field day. June 29, 2012. Valatie, NY. 30 min. ~50 people.
- 200.Morris, T., Q.M. Ketterings, and J. Camberato (2012). Adaptive Nutrient Management: Onfarm research. NRCS Webinar. June 13, 2012. 94 people. 1 hr. Invited talk.
- 201.Morris, T., Q.M. Ketterings, and J. Camberato (2012). Adaptive Nutrient Management. NRCS Webinar. May 3, 2012. 196 people. 1 hr. Invited talk.
- 202.Morris, T., Q.M. Ketterings, and J. Camberato (2012). Adaptive Nutrient Management. Livestock and Poultry Environmental Learning Center Webcast. April 20, 2012. 66 people. <u>http://www.extension.org/pages/63452/adaptive-nutrient-management</u>. 1 hr. Invited talk.
- 203.Ketterings, Q.M. (2012). Barriers and opportunities for adoption of nutrient management. EPA/NRCS/SERA17 informational meeting. April 19, 2012. 15 min. Invited talk.
- 204.Nutrient Management CNMP Training. 2012. NRCS/NYSDAM Water Quality Symposium (4 hours). Auburn, NY, March 16, 2011. Co-presenter: K.J. Czymmek. Invited speakers. 15 people.
- 205.Ketterings, Q.M. (2012). Nutrient management research update. Northern New York Agriculture Development Program (NNYADP). Plattsburgh, NY, March 1, 2012. 30 min, ~20 people.
- 206.Ketterings, Q.M. (2012). Clover and nitrogen management of corn. Organic cropping systems trial farmer advisory board meeting. Ithaca, NY. February 29, 2012. 45 min. ~15 people.
- 207.Ketterings, Q.M. (2012). Adaptive management for corn in New York State. Iowa Soybean Association Annual On-Farm Research Network Conference. Ames, IA. February 16, 2012.
  50 min. Invited speaker. ~300 people.
- 208.Ketterings, Q.M. (2012). Nutrient management research update. Northern New York Agriculture Development Program (NNYADP). Watertown, NY, January 27, 2012. 30 min, ~30 people.
- 209.Ketterings, Q.M. (2012). Whole farm nutrient balances; why should we care? Northeast Pasture Consortium Annual Meeting. Latham, NY, January 25, 2012. 30 min, ~50 people.
- 210.Ketterings, Q.M. (2012). Cover crop carbon and nitrogen content: Fall N uptake and credits for the next year. Corn congress. January 18 and 19, 2012. 30 min. Batavia and Waterloo, NY. 632 people (393 in Batavia, 239 in Waterloo).
- 211.Ketterings, Q.M. (2012). Nitrogen management...use it, don't lose it. Madison County Winter Crop Meetings. Cazenovia, January 11, 2012. 60 min, ~46 people.

- 212.Ketterings, Q.M. (2012). Cornell update: Nutrient Management: Looking Back, Moving Forward. New York State AgriBusiness Association Annual Meetings. Fairport, NY, January 10, 2012. 25 min. ~60 people.
- 213.Ketterings Q.M., K. J. Czymmek (2011). New York State on-farm research partnership. Northeast Region Certified Crop Advisor Annual Training. November 29-December 1, 2011. Syracuse, NY. 50 min. ~40 people.
- 214.Beegle, D., Q.M. Ketterings, K.J. Czymmek (2011). Manure treatment and N fertilizer. Northeast Region Certified Crop Advisor Annual Training. November 29-Decemver 1, 2011. Syracuse, NY. 50 min. ~80 people.
- 215.Ketterings, Q.M., K.J. Czymmek (2011). New York State potassium for alfalfa project results of the statewide project. Northeast Region Certified Crop Advisor Annual Training. November 29-December 1, 2011. Syracuse, NY. 50 min. ~80 people.
- 216.Ketterings, Q.M. (2011). Soil testing and plant analyses. Northeast Region Certified Crop Advisor Annual Training. Basic Training. November 29-December 1, 2011. Syracuse, NY. 45 min. ~33 people.
- 217.Ketterings, Q.M. (2011). Can New York farmers afford to manage alfalfa without sulfur addition? 2011 Field Crop Dealer Meetings. November 21, 2011. Multiple locations. 35 min. ~133 people.
- 218.Ketterings, Q.M., K.J. Czymmek (2011). Cover crops for corn; Fall and spring carbon and nitrogen pools. Cover Crop Workshop and Tour. Big Flats Plant material Center. November 4, 2011. Big Flats, NY. 30 min. ~100 people.
- 219.Ketterings, Q.M., K.J. Czymmek, P. Ristow, C. Rasmussen, and S. Swink (2011). State, regional and farm-scale nutrient balances: tools for enhanced efficiency of whole farm nutrient use. Cornell Nutrition Conference 2011. October 18-20, 2011. Syracuse, NY. 40 min. ~100 people.
- 220.Sharpley, A., D. Beegle, C. Bolster, L. Good, B. Joern, Q.M. Ketterings, J. Lori, R. Mikkelsen, D. Osmond, and P. Vadas (2011). Phosphorus indices and the 590 review: why we need to take stock of how we are doing. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011. Presented by Andrew Sharpley. ~ 80 people. 15 min.
- 221.Ketterings, Q.M. and K.J. Czymmek (2011). P index as a P awareness tool: documented P use reductions in NYS. ASA/SSSA/CSSA meeting, San Antonio, Texas, October 16-19, 2011. Presented by Quirine Ketterings. Invited speaker. ~ 80 people. 20 min.
- 222.Adaptive management for New York dairies (2011). Adaptive Nutrient Management and Systems Approach for Water Quality. Meeting with NRCS state conservationists. August 24, 2011, Washington, DC/Arlington, VA. ~20 people. 30 min.
- 223.Nutrient management strategies for dairy based agriculture (2011). 4<sup>th</sup> International Symposium Global Issues in Nutrient Management Science Technology and Policy. University of Delaware. August 22, 2011. Invited speaker. Co-presenter: K.J. Czymmek. ~95 people. 30 min.
- 224.Starter N materials, amount and timing. 2011. Aurora Field Day. August 14, 2011. ~80 people. 50 min.
- 225. Tools for small farm nutrient management. 2011. Crop Update Meeting, Cornell Cooperative Extension of Allegany-Cattaraugus Counties. April 8, 2011. Invited speaker. 45 min. ~18 people.
- 226.Nutrient Management Spear Program Projects. 2011. DairyOne Board of Directors Meeting. Ithaca, NY, March 31, 2011. Invited speaker. 1 hr. ~15 people.

- 227.Starter Nitrogen for Corn; Statewide Project. 2011. ACS/Farmland Environmental Staff Meeting. Ithaca, NY, March 28, 2011. 45 min. ~20 people. Invited speaker.
- 228.Adaptive Management for Improved Nutrient Use Efficiency in New York State. 2011. NEERA 1002 Webinar (1.5 hours). Invited speaker. March, 25, 2011. Co-authors: Karl Czymmek and Patty Ristow. 41 people.
- 229.Shallow incorporation of manure for residue management and N conservation. 2011. Delaware County No-Till Conference (15 min). Hamden, NY, March 24, 2011. Invited speaker. ~45 people.
- 230.Nitrogen management in corn. Delaware County No-Till Conference (45 minutes). Hamden, NY, March 24, 2011. Invited speaker. ~45 people.
- 231.Nutrient Management CNMP Training. 2011. NRCS/NYSDAM Water Quality Symposium (4 hours). Auburn, NY, March 16, 2011. Co-presenter: K.J. Czymmek. Invited speakers. 32 people.
- 232.Advanced Nutrient Management Workshop. 2011. NRCS/NYSDAM Water Quality Symposium (6.5 hours). Auburn, NY, March 17, 2011. Co-presenter: P. Ristow. Invited speakers. 22 people.
- 233.Nutrient Management Spear Program projects; CSNT for BMR versus conventional corn and starter N needs for corn in manured fields. ACS/Farmland Environmental Staff Meeting. February 17, 2011. ~20 people. Invited speaker.
- 234.Clover N credits. 2011. Organic Cropping Systems Farmer meeting. Ithaca, NY, February 10, 2011. ~15 people. Invited speaker.
- 235.NNY nutrient management projects. 2011. Eastern NNY NNYADP meeting (20 min). Plattsburgh, NY, February 4, 2011. ~20 people. Invited speaker.
- 236.NNY nutrient management projects. 2011. Western NNY NNYADP meeting (20 min). Watertown, NY, January 22, 2011. ~20 people. Invited speaker.
- 237.Sulfur management of alfalfa. 2010. Northeast Region Certified Crop Adviser training. Waterloo, NY. November 29-December 2, 2010. 53 people. 8.9/9.2 out of 10 (content/quality of teaching). 50 min.
- 238.Soil and plant analyses. Basic training. 2010. Northeast Region Certified Crop Adviser training. Waterloo, NY. November 29-December 2, 2010. 34 people. 8.3/8.6 out of 10 (content/quality of teaching). 45 min.
- 239.Campus and county collaborations. 2010. Northern NY Agricultural Summit. Tupper Lake. October 29, 2010. ~25 people. Invited speaker. 30 min.
- 240.Importance of using a system approach for managing ammonia from dairies 2010. Chesapeake Bay Goal Line 2015. Hunt Valley, MD. October 6, 2010. ~35 people. Invited speaker. 30 min.
- 241.Novel approaches to manure application in no-till 2010. September 17, 2010. ~100 people. LPE Webcast (http://www.extension.org/pages/Manure\_Application\_in\_No-Till). Co-(lead) presenter: D. Beegle. Invited speaker. 1 hr (joint).
- 242.Cover crops in dairy systems. 2010. Manure Management Systems and Technologies Tour. August 9, 2010, Western NY. ~ 40 people. 15 min.
- 243.Nitrogen management of corn. 2010. Co-presenter: K.J. Czymmek. Aurora Research Farm Field Day. July 22, 2010. Aurora, NY. ~ 80 people. 2x20 min.
- 244.Potassium management for alfalfa. 2010. Co-presenter: K.J. Czymmek. (2010). Aurora Research Farm Field Day. July 22, 2010. Aurora, NY. ~ 80 people. 2x20 min.

- 245.Manure application in alfalfa/legumes. 2010. Manure Expo. Balancing Production and Conversion. Co-presenter: K.J. Czymmek. July 15, 2010. Pennsylvania Furnace, PA. ~80 people. 45 min.
- 246.Manure application in no-till. 2010. D. Beegle, P. Kleinman, Q.M. Ketterings, and J. McGrath. Manure Expo. Balancing Production and Conversion. Co-presenter: K.J. Czymmek. July 15, 2010. Pennsylvania Furnace, PA. ~200 people. 1 hr (joint).
- 247.Dairy environmental successes and challenges (2010). Presenter: K.J. Czymmek. Manure Summit. July 14, 2010. Pennsylvania Furnace, PA. ~80 people. 30 min.
- 248.Illinois soil nitrogen test for nitrogen management (2010). July 10, 2010. Urbana, Illinois. ~40 people. Invited speaker. 45 min.
- 249.Sulfur needs of alfalfa; tools for sulfur management. Northeastern Branch of the Crop, Soil and Agronomy Societies of America. June 27-30, 2010. Ithaca, NY. Co-authors: J.H. Cherney, G. Godwin, S. Gami, D. Cherney, K.J. Czymmek. ~50 people. 20 min.
- 250.Organic grain systems soil fertility management (2010). Northern NY organic grain meeting (polycom with three locations). March 29, 2010. ~25 people.
- 251.Corn and alfalfa rotation management (2010). Northern New York Corn Congress (1 hour). Carthage and Canton, NY, March 24 and 25. ~70 people. Invited speaker.
- 252.Basics of corn fertility management and the Illinois Soil Nitrogen Test (2010). 2010 Delaware County Winter Crop School (1 hour). Hamden NY. March 17, 2010. ~30 people. Invited speaker.
- 253.Workshop: Nutrient management tools for small farms (2010). (4 hours). Garrattsville, NY, March 12. Lead-presenter: P. Ristow. 8 people.
- 254.Basic agronomy (2010). Water Quality Symposium (1.5 hours). March 11, 2010. Binghamton NY. Co-presenters: K.J. Czymmek. 26 people. Invited speakers.
- 255.Nutrient Management CNMP Training (2010). 2010 NRCS/DAM Water Quality Symposium (4 hours). Binghamton, NY, March 10, 2010. Co-presenter: K.J. Czymmek. Invited speakers. 24 people.
- 256.Fertility management of corn and alfalfa rotations. Miner Institute Crop Congress (1 hour). ~60 people. February 17, 2010. Chazy, NY. Invited speaker.
- 257.Fertility management of corn-alfalfa rotations (2010). King's Agriseed Winter Meetings (1.5 hours). Arkade (February 9), Romulus (February 10), Dryden (February 11), and Greenwich (February 12). Co-presented with Karl Czymmek. ~250 people. Invited speakers.
- 258.Nutrient management and mass balance assessment (2010). Lewis County Farm Manager's meeting (3 hours). ~10 people. February 8, 2010. Lowville, NY. Co-presented with Patty Ristow, Caroline Rasmussen, and Joe Lawrence.
- 259.Nitrogen management using crop rotations, manure and fertilizer (2010). Nitrogen Workshop (4 hours).24 people. February 5, 2010, Poultney, Vermont. Southern Vermont Nutrient Management Program. Invited speaker.
- 260.NNY nutrient management projects (2010). Eastern NNY NNYADP meeting (20 min). Plattsburgh, NY, February 3, 2010. ~20 people. Invited speaker.
- 261.NNY nutrient management projects (2010). Western NNY NNYADP meeting (20 min). Watertown, NY, January 25, 2010. ~20 people. Invited speaker.
- 262.Enhanced efficiency fertilizers (2010). January 19, 2010. Cargill Meeting (45 min). Fort Plain, NY. ~100 people. Invited speaker.
- 263.Optimizing nitrogen management of corn using rotations, cover crops, manure and/or fertilizer (2010). Western New York Corn Congress (1 hour). Batavia, NY, January 13, 2010.
  ~250 people. Waterloo, NY, January 14, 2010. ~200 people. Invited speaker.

- 264.Soil and plant analyses (2009). Northeast Region Certified Crop Adviser training. Waterloo, NY. December 8-10.
- 265.Potassium management of alfalfa (2009). Northeast Region Certified Crop Adviser training. Waterloo, NY. December 8-10. Co-presenter: K.J. Czymmek.
- 266.Shallow incorporation of manure (2009). Northeast Region Certified Crop Adviser training. Waterloo, NY. December 8-10. Co-presenter: K.J. Czymmek. Co-authors: A. Place and G. Godwin.
- 267.Ketterings, Q.M. (2009). Nitrogen credits from cover crops. Cover Crop Workshop and Tours. Big Flats Plant Materials Center. USDA-NRCS. November 18. ~120 people. Invited speaker.
- 268.Ketterings, Q.M. (2009). Value of manure. Organic cropping systems. Aurora, NY. November 16, 2009. 10 people.
- 269.Ketterings, Q.M., J. Klapwyk\*, J. Lawrence\*, K.J. Czymmek (2009). Comprehensive perspective on the ISNT approach. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 270.Swink\*, S.N., Q.M. Ketterings, K.J. Czymmek, M. van Amburgh, and L.E. Chase (2009). Nitrogen balances for New York State: past and future. ASA/SSSA/CSSA meeting, Pittsburgh, PA, November 1-5, 2009.
- 271.Ketterings, Q.M. Enhanced efficiency fertilizers and research update (2009). 2009 Field Crop Dealer Meetings. October 27 (Latham, NY), October 28 (New Hartford, NY), October 29 (Batavia, NY) and October 30 (Auburn, NY). ~240 people.
- 272.NRCS 590 Nutrient Management Field Walk and Planning (2-day workshop) (2009). Conservation Skills Workshop. Cortland, NY. October 1-2. Invited speaker. Co-presenters: Greg Albrecht (NYSDAM), Patty Ristow (NMSP), Karl Czymmek (PRODAIRY), and Dale Gates (NRCS). 19 people.
- 273.Certified Crop Advisors (2009). Seminar for Agricultural Sciences majors. September 21, 2009. Co-presenter: Shawn Bossard. Invited speakers. ~60 students.
- 274.Late season stalk nitrate test (2009). Corn silage management field day. September 10, 2009. Hi-Hope Farm, Woodville, NY. Invited speaker. ~250 people.
- 275.Manure basics. Wyoming County Dairy Institute (2009). Module 9 Manure and Nutrient management. 2-hr evening session. April 9, 2009. Wyoming County Cooperative Extension Office, Warsaw, NY. Invited speaker. 6 people.
- 276.Making the most of your fertilizer dollars (2009). Oneida County Cornell Cooperative Extension and Clinton Tractor Winter Crops Meeting. Clinton, NY. March 18, 2009. Invited speaker. ~65 people.
- 277.Basic agronomy (2009). Water Quality Symposium (8 hours). March 12, 2009. Auburn NY. Co-presenters: K.J. Czymmek and P. Ristow. 29 people. Invited speakers.
- 278.Nutrient Management CNMP Training (2009). 2009 NRCS/DAM Water Quality Symposium (4 hours). Auburn, NY, March 11, 2009. Co-presenter: K.J. Czymmek. Invited speakers. 25 people.
- 279.NNY nutrient management projects. Eastern NY NNYADP meeting. Chazy, NY, February 20, 2009. ~35 people. Invited speaker.
- 280.New technologies for nitrogen management. Agricultural Consulting Service. Farmer meeting in Burlington, VT. February 18, 2009. ~30 people. Invited speaker.
- 281.Fine-tuning N management with the ISNT. 2009 Fruit and Vegetable Expo. Syracuse, NY, February 11, 2009. ~60 people. Invited speaker.

- 282.Getting the most from your manure. Madison County winter meeting. Cazenovia, NY, February 11, 2009. ~20 people. Invited speaker.
- 283.NNY nutrient management projects. Western NY NNYADP meeting. Watertown, NY, January 30, 2009. ~15 people. Invited speaker.
- 284.A new management strategy that saves \$\$; N, P & K management for corn. Western New York Corn Congress. Batavia, NY, January 14, 2009. ~320 people. Waterloo, NY, January 15, 2009. ~215 people. Invited speaker.
- 285.Nutrient Management Spear Program. 2-hr meeting with CALS farm staff. ~20 people. Ithaca, NY. January 20, 2009.
- 286.Nutrient management workshop. NYSDAM sponsored 2 day nutrient management training for AEM planners. Auburn, NY. January 12-13, 2009. 20 people. Co-delivered with Patty Ristow, Karl Czymmek, Brian Aldrich (CCE of Cayuga County).
- 287.Nutrient management workshop. 1 day-intense nutrient management training for AEM planners. WNYCMA, Perry, NY. January 6, 2009. 5 people. Co-delivered with Patty Ristow and Karl Czymmek.
- 288.Soil testing for crop production and understanding conversion equations. Advanced Training. Northeast Certified Crop Advisor Conference. December 9-11, 2008. Waterloo, NY. ~30 people.
- 289.Corn-alfalfa fertility management given high fertilizer prices. Advanced Training. Northeast Certified Crop Advisor Conference. December 9-11, 2008. Waterloo, NY. ~40 people (2 sessions).
- 290.Soil testing and plant analyses. Basic Training. Northeast Certified Crop Advisor Conference. December 9-11, 2008. Waterloo, NY. 36 people.
- 291.Nutrient Management Spear Program: opportunities for collaboration. ACS staff meeting. November 21, 2008. Ithaca, NY. ~40 people. Invited.
- 292.Nutrient management workshop. NYSDAM sponsored 1½ day nutrient management training for AEM planners. Watertown, NY. November 18-19, 2008. 22 people. Co-delivered with Patty Ristow, Karl Czymmek, Joe Lawrence (CCE of Lewis County) and Mike Hunter (CCE of Jefferson County).
- 293.Nutrient management updates. 2008 Ag Inservice, Ithaca NY. ~25 people.
- 294.Nutrient management in a regulatory environment. Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, NEIGAE, Harbin, P.R. China. November 3, 2008. ~30 people. Invited speaker.
- 295.Soil testing: how many samples and when for most reliable phosphorus estimates (2008). 2007 Field Crop Dealer Meetings. October 28 (Albany, NY), October 29 (New Hartford, NY), October 30 (Batavia, NY) and October 31 (Auburn, NY). ~240 people.
- 296. Tools for optimizing nitrogen management of corn: ISNT and stalk nitrate tests; a package deal (2008). 2008 Field Crop Dealer Meetings. October 28 (Albany, NY), October 29 (New Hartford, NY), October 30 (Batavia, NY) and October 31 (Auburn, NY). ~240 people.
- 297.Nutrient management in NYS: Applied research and extension in a regulatory environment. Agroecological Perspectives for Sustainable Development Seminar Series. CIIFAD, Cornell University. October 15, 2008. ~50 people. Invited speaker.
- 298.Using whole farm mass balance assessments for improving upon nutrient management plans. Co-authors: K.J. Czymmek, C. Rasmussen, P. Ristow, and L.E. Chase. ASA/SSSA/CSSA meeting, Houston, Texas, October 6-10, 2008. ~ 50 people. Invited speaker. Special symposium on nutrient management planning.

- 299.Nutrient Management Spear Program. RCPRSP presentation for freshman students in the program. September 29, 2008. Ithaca, NY. ~ 25 people. Invited speaker.
- 300.How much nitrogen does corn really need? Stutzman's Research Farm, Arkport, NY. August 26, 2008. ~ 60 people. Invited speaker.
- 301.Illinois Soil N Test; experiences in New York. Joint meeting of SERA6, NRC13 and NEC1007. June 22-25, 2008. Nashville, TN. ~ 50 people.
- 302.Nutrient Management Spear Program; Responding to farm environmental regulations. New York State Soil and Water Conservation Committee (SWCC) meeting. June 16, 2008. Auburn, NY. ~25 people. Invited diner speaker.
- 303.Nutrient management updates. Field Crops Retreat. March 31, 2008. ~28 people. Co-presented by entire NMSP team. 28 people.
- 304.Determining starter and broadcast fertilizer needs. Presented at: "Making the most of your fertilizer dollars" (2008). Series of 5 meetings in Northern NY, March 17-21, 2008. ~90 people. (Presented by K. Czymmek on March 19).
- 305. Tools for N management what worked, what didn't. Presented at: "Making the most of your fertilizer dollars" (2008). Series of 5 meetings in Northern NY, March 17-21, 2008. ~90 people. Co-presenter: J. Lawrence (Presented by K. Czymmek on March 19).
- 306.Cornell Cropware; the basics (2008). Extension of Water Quality Symposium basic agronomy course. Ithaca, NY, March 19, 2008. Co-presenters: P. Ristow (lead instructor), C. Rasmussen, G. Albrecht. 16 people. Invited speakers.
- 307.Basic agronomy (2008). Water Quality Symposium. March 13, 2008. Auburn NY. Copresenters: K.J. Czymmek and P. Ristow. 39 people. Invited speakers.
- 308.Nutrient Management CNMP Training (2008). 2008 NRCS/DAM Water Quality Symposium. Auburn, NY, March 12, 2008. Co-presenter: K.J. Czymmek. 30 people. Invited speakers.
- 309.Meeting crop nutrient needs without breaking your budget (2008). Southern Tier Field Crop Workshop. March 6, 2008. Horseheads, NY. Invited speaker ~30 people.
- 310.Basics of nitrogen cycling and update on the new organic N test for improved N management (2008). Organic grower meeting, Cortland, NY. Feb 27, 2008. Invited speaker. ~ 20 people.
- 311.Corn fertility management in 2008 (2008). Seneca County Crop and Dairy Day in Romulus, NY. February 20, 2008. Invited speaker. ~15 people.
- 312.Soybean N credits (2008). Waterloo, NY, February 6, 2008. ~ 120 people. Batavia, NY, February 7, 2008. ~ 150 people. Invited speaker.
- 313.Corn fertility management in 2008 (2008). Western New York Corn Congress. Batavia, NY, Jan. 16, 2008. ~380 people. Waterloo, NY, Jan. 18, 2008. ~280 people. Invited.
- 314. Tools for N management for corn (2007). Northeast Region Certified Crop Advisor training. December 4-6, 2007. Waterloo, NY. Co-presenter: Joe Lawrence. ~ 60 people.
- 315.Mass Nutrient Balances; Management Tool for NY dairy and livestock farms (2007). Northeast Region Certified Crop Advisor training. December 4-6, 2007. Waterloo, NY. Copresenters: Caroline Rasmussen, Patty Ristow, Larry Chase. ~ 35 people.
- 316.Soil testing and plant analyses (2007). Basic Training. Northeast Certified Crop Advisor Conference. December 4-6, 2007. Waterloo, NY. 39 people.
- 317.Nutrient Management Update. November Ag Inservice. Field Crops. Co-presenters: Karl Czymmek, Joe Lawrence, Patty Ristow, Sheryl Swink, Greg Godwin, Wayne Berry. November 15, 2007, Ithaca NY. ~25 people.

- 318.Nutrient Management. AEM Annual Training (2007). November 13-14, 2007, Waterloo, NY. Co-presenter: Karl Czymmek. ~40 people.
- 319.Late season stalk nitrate test: tool for N management for corn (2007). 2007 Field Crop Dealer Meetings. October 23 (Clifton Park, NY), October 24 (New Hartford, NY), October 25 (Batavia) and October 26 (Auburn, NY). 237 people.
- 320.Soybean N credits (2007). 2007 Field Crop Dealer Meetings. October 23 (Clifton Park, NY), October 24 (New Hartford, NY), October 25 (Batavia) and October 26 (Auburn, NY). 237 people.
- 321.Mass nutrient balances; tools for environmental management of dairy farms (2007). Delaware County precision feed management program. Sponsors Conference and Tour. October 4-5, Delhi, NY. Co-presenters: C. Rasmussen and P. Ristow. ~30 people.
- 322.Performance Measures for AFO NMPs roundtable discussion (2007). Heartland Region Water Quality sponsored 2-day round table discussion in EPA Region 7 on Performance Measures for AFO NMPs. August 29, 2007, Lincoln, Nebraska (contributed with presentation from Ithaca). ~ 30 people. Invited speaker.
- 323.Northern New York nutrient management research and extension projects (2007). First Annual Field Crops Tour. Integrated Field Crops Program Work Team and New York State Corn Growers Association. Sackets Harbor, NY, August 20, 2007. ~70 people.
- 324.Manure incorporation/ammonium conservation project (2007). Musgrave Research Farm Field Day. July 26, 2007. Co-presenter: J. Lawrence. ~80 people.
- 325.Tools for nitrogen management for corn (2007). Musgrave Research Farm Field Day. July 26, 2007. Co-presenter: J. Lawrence. ~80 people.
- 326. Whole-farm mass nutrient balances; tool for environmental management (2007). Workshop "Nutrient Accounting for Australian dairy farms", Melbourne, Australia. May 1-2, 2007. ~40 people. Invited speaker.
- 327.Nutrient management in a regulatory environment. Experiences in research, extension and teaching (2007). Department of Primary Industries. Seminar. Ellenbank, Australia. May 3, 2007. ~40 people. Invited speaker.
- 328.Dairy farm nutrient management challenges and opportunities in New York (2007). Lincoln University, Christchurch, New Zealand. Seminar. May 9, 2007. ~20 people.
- 329.Nutrient management in a regulatory environment (2007). Invermay AgResearch workgroup. 6 people. Denudin, New Zealand. May 15, 2007.
- 330.Phosphorus management on New York farms (2007). 2007 NRCS/DAM Water Quality Symposium. Auburn, NY, March 8, 2006. Co-presenter: K.J. Czymmek. 26 people.
- 331.Nitrogen management on New York farms (2007). 2007 NRCS/DAM Water Quality Symposium. Auburn, NY, March 8, 2006. Co-presenter: K.J. Czymmek. 26 people.
- 332.Nitrogen needs for corn; tools for N management (2007). Northern New York Crop Congress. March 14, Canton, NY ~80 people. March 15, Carthage, NY, ~80 people.
- 333.Tools for N management for corn. How much do we need and how do we know? (2007). Miner Institute 37<sup>th</sup> Annual Corn Congress. February 28, 2007. Co-author: Joe Lawrence. ~80 people. Invited (keynote) speaker.
- 334.Applying manure to alfalfa. Do's and don'ts. Miner Institute 37<sup>th</sup> Annual Corn Congress. February 28, 2007. Co-authors: Erica Frenay, Jerry Cherney, Karl Czymmek, Stu Klausner, Larry Chase, and Ynte Schukken. ~80 people. Invited (keynote) speaker.

- 335.How much nitrogen do we really need for first year corn? (2007). Western New Year Corn Congress. Batavia, NY, January 17, 2007. ~280 people. Waterloo, NY, January 18, 2007. Coauthor: Joe Lawrence. ~200 people. Invited speaker.
- 336.Nitrogen guidelines/tools for management (2006). Northeast Certified Crop Advisor Conference. December 5-7, 2006. Waterloo, NY. ~40 people. Co-author: Joe Lawrence.
- 337.Soil testing and plant analyses (2006). Basic Training. Northeast Certified Crop Advisor Conference. December 5-7, 2006. Waterloo, NY. 14 people.
- 338.Farm nutrient management in a regulatory environment. Experiences in research and extension in New York (2006). December 1, 2006. Alfred University, Alfred NY. ~ 30 people. Invited speaker.
- 339.Whole farm nutrient balances: tools for long-term (2006). Mid-Atlantic Region Crop Management School. November 28-30, Ocean City, MD. ~ 100 people. Invited speaker.
- 340.Considerations for manure use on established alfalfa. 2006 Field Crop Dealer Meetings. October 24 (Clifton Park, NY), October 25 (New Hartford, NY), October 26 (Batavia) and October 27 (Auburn, NY). 216 people.
- 341.Nitrogen needs for first year corn. 2006 Field Crop Dealer Meetings. October 24 (Clifton Park, NY), October 25 (New Hartford, NY), October 26 (Batavia) and October 27 (Auburn, NY). 216 people.
- 342.Integrated Nutrient Management. Crossing discipline boundaries for improved farm sustainability. Tribute to Danny Fox. Cornell Nutrition Conference. October 24, 2006. ~75 people. Invited speaker.
- 343.CAFO planning, science and the Land Grant University (2006). CAFO Litigation Panel. Albany Law School. Albany NY, September 15, 2006. ~50 people. Invited speaker.
- 344.Manure management and nitrogen retention (2006). Stutzman's Research Farm Field Day. Arkport NY, August 31. Co-presenter: S. Bossard. ~50 people.
- 345.Agronomic soil testing for P index assessment. Why? (2006) SERA17 Annual Meeting, Ithaca NY, August 2-4, 2006. ~ 90 people.
- 346.Tools for nitrogen management (2006). Aurora Research Farm Field Day. Aurora, July 20, 2006. Co-presenters: S. Bossard and J. Lawrence. ~ 90 people.
- 347.Phosphorus management on New York farms (2006). 2006 NRCS/DAM Water Quality Symposium. Auburn, NY, March 8, 2006. Co-presenter: K.J. Czymmek. 31 people.
- 348.Nitrogen management on New York farms (2006). 2006 NRCS/DAM Water Quality Symposium. Auburn, NY, March 8, 2006. Co-presenter: K.J. Czymmek. 31 people.
- 349.Cornell Cropware; the basics (2006). 2006 NRCS/DAM Water Quality Symposium. Auburn, NY, March 8, 2006. 24 people.
- 350.Nitrogen recommendations for corn; tools for management (2006). 2006 TCT Dairy and Field Crops Winter Crop Meeting. Ithaca, NY, January 26, 2006. 86 people.
- 351.Illinois Soil N test (ISNT) for determining if corn needs additional N. Update on 3 years of New York research. Western New Year Corn Congress. Batavia, NY, January 18, 2006. ~280 people. Waterloo, NY, January 19, 2006. ~180 people. Invited speaker.
- 352.Statewide county-based and whole farm nutrient balances. Tools to help with long-term nutrient planning. Farmer extension meeting. Lowville, NY, January 11, 2006. Co-presented by C. Rasmussen and K. Czymmek. 14 people.
- 353.Alfalfa fertility management: part 1: pH and lime. Eastern New York Alfalfa Expo. Saratoga Springs, NY, December 8, 2005. ~55 people.

- 354.Alfalfa fertility management: part 1: Boron, potassium and manure. Eastern New York Alfalfa Expo. Saratoga Springs, NY, December 8, 2005. ~55 people.
- 355.Nitrogen recommendations tools for management. Northeast Certified Crop Advisor Conference. November 19-December 1, 2005. Waterloo, NY. 46 people.
- 356.Soil testing and plant analyses. Basic Training. Northeast Certified Crop Advisor Conference. November 19-December 1, 2005. Waterloo, NY. 23 people.
- 357.Illinois Soil N Test (Aminosugar N Test) for determining if corn needs additional N Update on 3 years of NY research. 2005 Field Crop Dealer Meetings. October 25 (Clifton Park, NY), October 26 (New Hartford, NY), October 27 (Batavia), October 28 (Auburn, NY). Coauthors: J. Klapwyk, N. Galens, M. Wang, G. Godwin. 249 people.
- 358.Statewide, County-Based and Whole Farm Nutrient Balances Tools to Help with Long-Term Nutrient Planning. 2005 Field Crop Dealer Meetings. October 25 (Clifton Park, NY), October 26 (New Hartford, NY), October 27 (Batavia) and October 28 (Auburn, NY). Coauthors: C. Rasmussen, J. Mekken, and K. Czymmek. 249 people.
- 359.Basic soil science: soil fertility and manure application. Technical Fundamentals of CAFOs for permit writers and inspectors. EPA Regions 1&2. Albany, NY. October 24, 2005. Delivered by Q. Ketterings. Co-author: K. Czymmek. ~ 30 people.
- 360.Manure management and nitrogen availability. Stutzman's Field Day 2005. Arkport, NY. September 1, 2005. Co-presenter: S. Bossard. ~ 50 people.
- 361.NESARE L02-173: Starter Phosphorus Project. 2005 Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents. Buffalo, New York. July 17-21, 2005. ~ 25 people.
- 362.Systematic nutrient (im)balances in dairy farm systems of the Northeast and Mid-Atlantic Regions of the United States. 2005 NEBASA/SSSA meeting, Storrs, Connecticut, July 10-13, 2005. Abstract #9136. Co-authors: K.J. Czymmek, D.B. Beegle, and L.E. Chase. ~ 25 people.
- 363.Nutrient (phosphorus) management issues on New York dairy farms: research and extension in a regulatory environment (2005). Biogeochemistry and Environmental Biocomplexity Spring 2005 Seminar Series. Cornell University, Ithaca NY. April 8, 2005. ~ 30 people.
- 364.Research Update: Nutrient Management Spear program work in Northern New York (2005). Western Northern New York Agriculture Development Program committee meeting. Watertown, NY. March 18, 2005. Co-author and co-presenter: J. Kahabka.
- 365.Managing phosphorus for profit and the environment (2005). 2005 Madison County Crop Congress. Cazenovia, NY. March 16, 2005. ~ 15 people.
- 366.Research Update: Nutrient Management Spear program work in Northern New York (2005). Eastern Northern New York Agriculture Development Program committee meeting. Chazy, NY. March 11, 2005. Co-author and co-presenter: J. Kahabka.
- 367.Integrated Nutrient Management Program Work Team and Nutrient Management Spear Program (2005). NY Nonpoint Source Coordinating Committee Meeting. Ithaca, Syracuse, Valhalla and Voorheesville, NY (video links). March 3, 2005.
- 368.Stretching your fertilizer dollar (2005). Crop Congress in Steuben County. Kanona, NY, February 22, 2005.
- 369.Soil Testing Issues for Phosphorus (2005). New England In-Service Training for Ag Service Providers. Scarborough ME, February 2, 2005.

- 370.Phosphorus management on dairy farms (2005). New England In-Service Training for Agricultural Service Providers. Scarborough ME, February 2, 2005. Co-author: K.J. Czymmek.
- 371. Trends in phosphorus in New York (2004). Field Crops Dealer Meetings. October 26 (Clifton Park, NY) and October 29 (Auburn, NY). Co-author: G.L. Albrecht.
- 372.Nutrient management research update (2004). Field Crops Dealer Meetings. October 26 (Clifton Park, NY) and October 29 (Auburn, NY). Co-author: G.L. Albrecht.
- 373.Nutrient Management Spear Program A Campus County partnership (2004). Cornell Cooperative Extension Week. Ithaca, NY October 5, 2004. Invited presentation.
- 374.Nutrient Management Extension, Teaching, and Research in New York (2004). World Bank Visit at Cornell University, Ithaca, NY, October, 18, 2004. Presented by Q.M. Ketterings, K.J. Czymmek and G.L. Albrecht.
- 375.Reducing laboratory variability of the Illinois soil N test (2004). Joint Regional Soil Testing Work Group Meeting (NEC-1007, SERA-6 and NCR-13). Newark, Delaware, September 13-15, 2004. Presentation by Q.M. Ketterings. Co-author: J. Klapwyk.
- 376.Comparison of Bray-1 and Mehlich-3 tests in high phosphorus soils (2004). Joint Regional Soil Testing Work Group Meeting (NEC-1007, SERA-6 and NCR-13). Newark, Delaware, September 13-15, 2004. Presentation by Q.M. Ketterings. Co-author: M. Flock.
- 377.Phosphorus management for dairy farms (2004). 2004 NEBCSA meetings, Nutrient Management Certified Crop Advisor Workshop, Bordentown, New Jersey, July 14, 2004. Presentation by Q.M. Ketterings. Co-authors: K.J. Czymmek and G.L. Albrecht.
- 378.Starter P project and nitrogen recommendation update (2004). Northern New York Crop Conference. Canton, NY, March 18<sup>th</sup>, 2004 and Carthage, NY, March 19, 2004.
- 379.Phosphorus and potassium management on New York farms (2004). 2004 NRCS/DAM Water Quality Symposium. Saratoga Springs, NY, March 10, 2004. Co-presenter: K.J. Czymmek.
- 380.Nitrogen management on New York farms (2004). 2004 NRCS/DAM Water Quality Symposium. Saratoga Springs, NY, March 12, 2004. Co-presenter: K.J. Czymmek.
- 381.SPEAR Program: crop and manure nutrient management research, extension and teaching at Cornell (2003). CSS seminar series. November 18, 2003.
- 382.Nutrient Management Update (2003). 2003 Ag Inservice. Ithaca, NY, November 12-13, 2003. Co-presenters: K.J. Czymmek and G.L. Albrecht.
- 383. Whole farm crop and manure nutrient management. Help! 2003 Cornell Nutrition Conference. October 21-23, 2003. Co-authors: G.L. Albrecht, and K.J. Czymmek.
- 384.SPEAR Program: crop and manure nutrient management research, extension and teaching at Cornell (2003). Horticulture seminar series. August 28, 2003.
- 385.CALS Integrated Nutrient Management Program Work Team and Nutrient Management Spear Program (2003). Presentation for the NYS Soil and Water Conservation Committee June Meeting. Ithaca, NY, June 17, 2003.
- 386.Phosphorus and potassium management on New York farms (2003). 2003 NRCS Water Quality Symposium. Binghamton, NY, March 12, 2003. Co-presenter: Karl Czymmek.
- 387.Nitrogen management on New York farms (2003). 2003 NRCS Water Quality Symposium. Binghamton, NY, March 12, 2003. Co-presenter: K.J. Czymmek.
- 388.Corn P Trial Results (2003). Oneida Crop Congress. Remsen, NY, March 11, 2003.
- 389.Nutrient Management Update (2003). Steuben County Crop Symposium. Bath, NY, February 25, 2003. Co-presenter: K.J. Czymmek.

- 390.Agriculture in the Netherlands (2003). 2003 Winter Crop Meeting. CCTTS Dairy and Field Crops. Ithaca, NY, January 22, 2003. Co-presenter: K.J. Czymmek.
- 391.Nutrient Management Update (2002). 2002 Ag Inservice. Ithaca, NY, November 20, 2002. Co-presenters: K.J. Czymmek and G.L. Albrecht.
- 392.Farming in an Urban Country study tour of the Netherlands (2002). General session at the 2002 Ag Inservice. Ithaca, NY, November 20, 2002. Co-presenters: K.J. Czymmek, G.L. Albrecht, C.N. Rasmussen, D. Dewing, S. Bossard, T. Tylutki.
- 393.Aminosugar Soil Test (2002). Field Crop Dealer Meetings 2002. October 22 (Clifton Park, NY), October 23 (New Hartford, NY), October 24 (Batavia, NY), and October 25 (Auburn, NY). Co-author: N. Galens.
- 394.New York Starter P Project updates on the 2002 growing season (2002). Field Crop Dealer Meetings 2002. October 22 (Clifton Park, NY), October 23 (New Hartford, NY), October 24 (Batavia, NY), and October 25 (Auburn, NY). Co-author: K.J. Czymmek.
- 395.NY Starter P Project (2002). Oneida County Field Day. September 18, Teel Farm, Trenton Falls, NY.
- 396.NY Starter P Project: results of the 2001 trials (2002). CCTTS Nutrient Management Meeting. March 22, Ithaca NY.
- 397.Research Update: Nutrient Management Spear Project (2002). CCTTS Nutrient Management Meeting. March 22, Ithaca NY.
- 398.Nutrient Management Training for NRCS/SCWD (2002). March 21-22. Ithaca, NY. Together with K.J. Czymmek.
- 399.Nutrient Management Planning. AEM-CNMP Training. (2002). Water Quality Symposium, March 13-14, Auburn NY. Together with K.J. Czymmek.
- 400.Nutrient Management Spear Program (2002). February 7. Auburn, NY. Cayuga County Winter Meeting.
- 401.Cornell Cropware, a nutrient management planning tool for New York (2001). PWT Conference "Developing an applying next generation tools for farm and watershed nutrient management to protect water quality". Ithaca NY. December 19-20. Co-author and co-presenter: G.L. Albrecht.
- 402.All you (N)ever wanted to know about phosphorus (2001). Extension Meeting "Managing N and P for profit and the environment". December 17 (Oneida, NY) and December 18 (Little Falls, NY).
- 403.Soil testing and plant tissue analysis (2001). Basic CCA training Nutrient Management Module. Ithaca NY. December 13.
- 404.Soil test conversions for New York (2001). Advanced CCA training. Ithaca NY. December 13.
- 405.Early corn fertility (2001). New England Vegetable and Berry Conference. Sturbridge, Massachusetts. December 11-13.
- 406.How much P do we need in the starter band for corn production? (2001). Field Crop Dealer Meetings 2001. October 30 (Clifton Park, NY), October 31 (New Hartford, NY), November 1 (Batavia, NY), and November 2 (Auburn, NY). Co-authors: K.J. Czymmek and T. Byron.
- 407.Can we use Mehlich-III input data to derive Cornell fertilizer recommendations? (2001). Field Crop Dealer Meetings 2001. October 30 (Clifton Park, NY), October 31 (New Hartford, NY), November 1 (Batavia, NY), and November 2 (Auburn, NY). Co-authors: K.J. Czymmek and T. Byron.

- 408.Is there a Morgan equivalent for Mehlich-III soil test for New York? (2001). ASA/SSSA/CSSA Annual Meetings in Charlotte, NC, October 21-25, 2001. Co-authors: B. Bellows, K.J. Czymmek, W.S. Reid, and R.F. Wildman. October 24, 2001.
- 409.Soil testing and the use of conversion equations. NRCS/SWCD nutrient management and Cropware training sessions. August 20-21, 22-23, 27-28 and September 11-12 (2001). Ithaca, NY.
- 410.N cycling and recommendations. NRCS/SWCD nutrient management and Cropware training sessions. August 20-21, 22-23, 27-28 and September 11-12 (2001). Ithaca, NY. Co-author and co-presenter: K.J. Czymmek.
- 411.P cycling and recommendations. NRCS/SWCD nutrient management and Cropware training sessions. August 20-21, 22-23, 27-28 and September 11-12 (2001). Ithaca, NY. Co-author and co-presenter: K.J. Czymmek.
- 412.P index. NRCS/SWCD nutrient management and Cropware training sessions. August 20-21, 22-23, 27-28 and September 11-12 (2001). Ithaca, NY. Co-author and co-presenter: K.J. Czymmek.
- 413.Soil testing and the use of conversion equations. Field crops extension agent training. July 24-27 (2001). Ithaca, NY.
- 414.N cycling and recommendations. Field crops extension agent training. July 24-27 (2001). Ithaca, NY.
- 415.P cycling and recommendations. Field crops extension agent training. July 24-27 (2001). Ithaca, NY.
- 416.Nutrient management planning in agricultural systems. Two-day road trip with Cornell Cooperative Extension Administrators Ed Harwood and Margaret Smith. Presentations given in Warsaw (Wyoming County Cooperative Extension), Syracuse (Onondaga County Cooperative Extension), Hudson Falls (Washington County Cooperative Extension, Millbrook (Dutchess County Cooperative Extension). March 22-23 (2001).
- 417.Nutrient management planning. AEM-CNMP Training. Auburn, NY, March 13-16 (2001).
- 418.Soil testing and fertilizer recommendations. Presentation at the Organic Farmers Vegetable Meetings. Geneva, NY, February 28 (2001).
- 419.How to get the most out of your soil test. Presentation at the Annual NYS Vegetable Conference. Syracuse, NY, February 18 (2001).
- 420.Nutrient management planning in agricultural systems. Winter Crop Meeting CCTTS, Ithaca, NY, January 25 (2001).
- 421.Directions and Opportunities in Shaping Future Field Crop Fertilizer and Nutrient Management Recommendations for New York. Field Crops Extension Educators Meeting. Cortland, NY, January 22 (2001).
- 422.Manure and nutrient management. Northern New York Advisory Committee Meeting. Moira, NY, January 12 (2001).
- 423.Nutrient management. CCA/CNMP training. Ithaca, NY, December 5-7 (2000).
- 424.Nutrient management. 2000 Agriculture and Food Systems In-Service. Ithaca, NY, November 28-30 (2000).
- 425.Fire as a land management tool in Sumatra, Indonesia. Can farmers do without it? Presentation at the XXIX<sup>th</sup> Annual Meetings of the European Society of New Methods in Agricultural Research (ESNA), Working Group 3: Soil-Plant relationships. Wye College (UK), September 7-12 (1999).

- 426.Fire intensity and soil phosphorus availability in Sumatra. Presentation at the three day seminar/workshop on "Water, Nutrient and Light Capture in Agroforestry Systems: process research and integrative models" organized by ICRAF S.E. Asia, Brawijaya University (Malang Indonesia), Wye College (UK) and IC-SEA/Biotrop, Bogor, Indonesia, July 20-22 (1999).
- 427.Fire as a land management tool in Sumatra, Indonesia. Can farmers do without it? Presentation at the Soil Science and Geology Department, Wageningen Agricultural University, Netherlands. December (1998).
- 428.Is the increased soil fertility after slash-and-burn due to the (sl)ash or the burn? Presentation at the Soil Science and Geology Department, Wageningen Agricultural University, Netherlands. November (1997).
- 429.Slash-and-burn as a land clearing method for small-scale rubber producers in Sepunggur, Jambi Province, Sumatra, Indonesia. Conference paper and oral presentation at the Workshop on the Smallholder Rubber Agroforestry Project, Bogor, Indonesia, September 29-30 (1997).