

MATT A. YOST

Agroclimate Extension Specialist
Plants, Soils, Climate Department
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EDUCATION AND TRAINING

- 2013 Ph.D. Major: Agronomy University of Minnesota
Minor: Geographic Information Science
- 2011 M.S. Major: Agronomy University of Minnesota
Minor: Soil Science
- 2009 B.S. Major: Agribus., Sci., and Tech. Brigham Young University-Idaho
Minor: Animal Nutrition and Agric. Tech.

EXPERIENCE HIGHLIGHTS

Authored or co-authored 13 peer reviewed journal articles (*an additional 4 accepted with revision*)
Authored and co-authored 18 extension articles and popular press articles
Co-authored 5 successful competitive grants totaling \$218,000
Invited presenter to over 400 total stakeholders in 10 extension and professional meetings
Invited presenter on Farm Connections Show that has received 750 online views
Presenter to over 1350 total stakeholders in 32 extension and professional meetings
Recognized with International Plant Nutrition Scholar and Sigma Xi awards

PROFESSIONAL EXPERIENCE

- 2017-Present **Agroclimate Extension Specialist**, Utah State University, Logan, UT
Overview: Developing cropping systems that are more resilient to variable and extreme climatic conditions.
- 2014-2017 **Research Soil Scientist**, USDA-Agricultural Research Service, Columbia, MO
Overview: Demonstrated that precision and conservation cropping systems can be as or more productive than conventional systems. Identified best management practices for establishing and fertilizing biomass crops.
- 2013-2014 **Postdoctoral Research Associate**, University of Minnesota, St. Paul, MN
Overview: Quantified the extent of and factors influencing alfalfa N credit guideline adoption in Minnesota.
- 2011-2013 **Ph.D. Research Assistant**, University of Minnesota, St. Paul, MN
Overview: Determined agronomic and environmental factors affecting the presence and size of nitrogen credits from alfalfa to corn. Confirmed that manure is not needed and that no-till does not increase the need for nitrogen in first-year corn following alfalfa.
- 2010-2011 **M.S. Research Assistant**, University of Minnesota, St. Paul, MN
Overview: Determined best management practices for potassium fertilizer management during rotation from alfalfa to corn. Identified that alfalfa regrowth and tillage timing have minimal impacts on nitrogen contribution of alfalfa to corn.

- 2008-2010 **B.S. Research Assistant**, Brigham Young University-Idaho, Rexburg, ID
Overview: Determined influence of composted dairy manure on soil nitrogen and phosphorus availability to irrigated alfalfa.

TEACHING EXPERIENCE

- 2012 **Teaching assistant**, University of Minnesota, Agronomy 5121: Experimental Design
Overview: Lectured, led weekly review sessions, and graded graduate course focused on experimental design and statistical analysis for agricultural and natural resource sciences.
- 2009 **Teaching assistant**, Brigham Young University-Idaho, Agricultural Technology 486: Advanced Geographic Information Systems in Agricultural and Natural Resources
Overview: Developed GIS and GPS lab exercises for advanced undergraduate precision agriculture course for students in agronomy and natural resource sciences.
- 2008 **Teaching assistant**, Brigham Young University-Idaho, Chemistry 101: Introduction to General Chemistry
Overview: Led weekly review sessions and lab exercises for undergraduate course in chemistry.

RELATED WORK EXPERIENCE

- 2008-2009 **Assistant Farm Manager**, K&G Inc., Burley, ID
Overview: Co-led in agronomic and farm operation implementation and decisions for dairy farm of 225 cattle and 350 acres of forage and grain crops.
- 2007-2008 **Feedlot Technician**, Dallco Farms, Salem, ID
Overview: Mixed and fed rations to over 2000 beef cattle and assisted in vaccinating, tagging, and branding cattle.
- 2000-2007 **Farm Technician**, K&G Inc., Burley, ID
Overview: Operated and maintained heavy farm equipment and helped maintain a dairy farm of 225 cattle and 350 acres of forage and grain crops.

GRANTS (* indicates funded, # indicates pending)

- 2017 #Burchfield, E., C. Lant, **M. Yost**, and J. Schoof. High spatial resolution mapping of suitability for specific crops in the United States under climate change. USDA-NIFA. \$994,515.
- Warnick, S., N. Kitchen, B. Geary, **M. Yost**, M. Transtrum, K. Veum, B. Adams, V. Chetty, A. Wilson. Data-driven feedback modeling of micro-biome regulation of N-response in maize, INFEWS-NSF, \$2,500,000.
- ***Yost, M.**, N. Kitchen, and P. Carter. Refining corn seeding depths to account for soil texture, cropping system, and landscape position. DuPont-Pioneer Crop Management Research Grant \$105,000.
- 2016 **Yost, M.**, N. Kitchen, A. Thompson, K. Sudduth, K. Veum, L Cartwright. Sustainability of no-till grain crops with cover crops compared to perennial bioenergy crops on unhealthy soils. NCR-SARE, \$176,770.
- 2015 Coulter, J., **M. Yost**, P. Pagliari, and D. Holen. Improving the predictability and adoption of alfalfa nitrogen credits to first-year corn. Minnesota Crop Research Grant Program, \$246,258.

- 2013 *Coulter, J.A., **M.A. Yost**, M.P. Russelle, P.V. Bolstad, and M.A. Davenport. Improving predictability and adoption of alfalfa N credits for corn: Part II. Minnesota Agricultural Fertilizer Research and Education Council, \$20,706.
- 2012 *Coulter, J.A., **M.A. Yost**, M.P. Russelle, P.V. Bolstad, and M.A. Davenport. Improving predictability and adoption of alfalfa N credits for corn. Minnesota Agricultural Fertilizer Research and Education Council, \$52,935.
- 2011 *Coulter, J.A., **M.A. Yost**, and M.P. Russelle. Predicting on-farm nitrogen credits from alfalfa to second-year corn. Minnesota Corn Research and Promotion Council, \$129,843.
- 2010 ***Yost, M.A.**, M.P. Russelle and J.A. Coulter. Improving nitrogen credit predictions to reduce soil residual nitrate. Minnesota Agricultural Water Resource Center, \$4,855.
- ***Yost, M.A.**, M.P. Russelle and J.A. Coulter. Reducing manure and nitrogen fertilizer inputs in alfalfa-corn rotations. USDA-NIFA North-Central Region SARE Graduate Student Grant Program, \$9,919.

HONORS AND AWARDS

- 2017 USDA-Agricultural Research Service Certificate of Appreciation.
- 2016 USDA-Agricultural Research Service Exceeds Performance Rating Award
- 2015 USDA-Agricultural Research Service Outstanding Performance Rating Award
- 2014 Nitrogen Use Efficiency Conference, 3rd place in poster competition
- 2013 Soils and Environmental Quality Division Graduate Student Award
Charles and Dorothy Andrew Bird Award, Sigma Xi
University of Minnesota Gordon and Lynette Marten Fellowship
University of Minnesota Hueg-Harrison Fellowship
- 2012 International Plant Nutrition Institute Scholar Award
North Central Extension-Industry Soil Fertility Conference, 2nd place in poster competition
- 2011 University of Minnesota Gordon and Lynette Marten Fellowship
University of Minnesota Hueg-Harrison Fellowship
North Central Extension-Industry Soil Fertility Conference Graduate Student Award
- 2008 Brigham Young University-Idaho Mentored Student Research Grant

OFFICES AND COMMITTEE ASSIGNMENTS HELD

- 2017 Member, National Club Poster Presentation Contest Committee
Reviewer, Journal of Soil and Water Conservation and Frontiers in Plant Science
Mentor, Golden Opportunity Scholar Program of ASA, CSSA, SSSA
Organizer and moderator, Long-Term Agroecology Research Symposium of ASA
- 2016 Member, Data Analytics Team of Soil Health Partnership
Member, Missouri Soil Health Consortium
Member, Soil and Biology Working Groups of USDA-ARS LTAR
Member, Missouri Soil Fertility Working Group
Judge, Graduate student poster competition of Soil Fertility Division of SSSA
Judge, Graduate student poster competition of NUE conference in Parma, ID

- 2015 Mentor, Golden Opportunity Scholar Program of ASA, CSSA, SSSA
Judge, Graduate student poster competition of Extension-Industry Soil Fertility Conf.
Member, Planning committee for NCR Extension-Industry Soil Fertility Conf.
Reviewer, Precision Agriculture Journal, Global Change Biology Bioenergy, Geoderma
Regional, Agronomy for Sustainable Development, and Crop, Forage, and Turfgrass
Management
- 2014 Judge, Graduate student oral competition of Soil Fertility Division of SSSA
- 2013 Reviewer, Agronomy Journal
- 2012 Member, Core Constituent Scientist Team for Minnesota 4th Congressional District
- 2011 Member, Membership and Society Identity sub-committee of ASA-CSSA-SSSA
- 2010 Member, Como Student Community Cooperative Board of Directors
Member, Como Student Community Cooperative Garden Committee
- 2009 Member, Univ. of Minnesota Dep. of Agronomy and Plant Genetics Centennial
Symposium Program Committee

SERVICE ACTIVITIES

- Hosted energy crop demonstration at Exp. Station in Missouri with over 16,000 attendees
- Taught basics of soil science to two Kindergarten classes at Fairview Elementary in Missouri
- Served as member of Como Student Community Cooperative Garden Committee in Minnesota
- Served as judge for science competition at French Immersion School in Minnesota
- Served as consultant for NIFA “*Precision Farming Workforce Development*” working group
- Assisted in implementing and summarizing a Precision Agriculture Roundtable discussion of leading national and international experts in St. Louis, MO in August 2016.

PROFESSIONAL AFFILIATIONS

- 2016 International Soc. of Precision Agriculture
- 2013 Sigma Xi
- 2010 International Plant Nutrition Institute
- 2010 Midwest Forage Association
- 2007 American Soc. of Agronomy, Soil Science Soc. of America, Crop Science Soc. of America

PUBLICATIONS LEGEND

† graduate student whom I served as committee member or assisted to advise

‡ undergraduate student I mentored

REFEREED JOURNAL ARTICLES

1. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, C.C. Sheaffer, and D.E. Kaiser. 2011. Potassium management during the rotation from alfalfa to corn. *Agron. J.* 103:1785-1793. doi.org/10.2134/agronj2011.0183
2. **Yost, M.A.**, J.A. Coulter, M.P. Russelle, C.C. Sheaffer, and D.E. Kaiser. 2012. Alfalfa nitrogen credit to first-year corn: Potassium, regrowth, and tillage timing effects. *Agron. J.* 104:953-962. doi.org/10.2134/agronj2011.0384
3. **Yost, M.A.**, J.A. Coulter, and M.P. Russelle. 2013. First-year corn after alfalfa showed no response to fertilizer nitrogen under no-tillage. *Agron. J.* 105:208-214. doi.org/10.2134/agronj2012.0334,
4. **Yost, M.A.**, M.P. Russelle, and J.A. Coulter. 2013. Nitrogen requirements of first-year corn following alfalfa were not altered by fall-applied manure. *Agron. J.* 105:1061-1069. doi.org/10.2134/agronj2012.0496
5. **Yost, M.A.**, M.P. Russelle, and J.A. Coulter. 2014. Field-specific fertilizer nitrogen requirements for first-year corn following alfalfa. *Agron. J.* 106:645-658. doi:10.2134/agronj2013.0416
6. **Yost, M.A.**, T.F. Morris. M.P. Russelle, and J.A. Coulter. 2014. Second-year corn after alfalfa often requires no fertilizer nitrogen. *Agron. J.* 106:659-669. doi:10.2134/agronj2013.0362
7. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, and P.V. Bolstad. 2014. Alfalfa stand length and subsequent crop patterns in the upper midwestern United States. *Agron. J.* 106: 1697-1708. doi:10.2134/agronj14.0014
8. **Yost, M.A.**, J.A. Coulter, M.P. Russelle, and M.A. Davenport. 2014. Opportunities exist to improve alfalfa and manure nitrogen crediting in corn following alfalfa. *Agron. J.* 106:2098-2106. doi:10.2134/agronj14.0212
9. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, M.A. Schmitt, C.C. Sheaffer, and G.W. Randall. 2015. Stand age affects fertilizer nitrogen response in first-year corn following alfalfa. *Agron. J.* 107:486-494. doi:10.2134/agronj14.0493.
10. **Yost, M.A.**, N.K. Kitchen, K.A. Sudduth, E.J. Sadler, C. Baffaut, M.R. Volkmann, and S.T. Drummond. 2016. Long-term impacts of cropping systems and landscape positions on claypan-soil grain crop production. *Agron. J.* 118:713-725. doi:10.2134/agronj2015.0413.
11. †Randall, B.K., **M.A. Yost**, N.R. Kitchen, E.A. Heaton, H.E. Stelzer, and A.L. Thompson. 2016. Impact of rhizome quality on *Miscanthus* × *giganteus* establishment in claypan soil landscapes. *Ind. Crops and Products.* 85:331-340. doi:10.1016/j.indcrop.2015.12.040.
12. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, E.J. Sadler, S.T. Drummond, and M.R. Volkmann. 2016. Long-term impact of a precision agriculture system on grain crop production. *Precis Agric.* doi:10.1007/s11119-016-9490-5.

13. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, A.L. Thompson, and E. Allphin. 2017. Topsoil thickness influences nitrogen management of switchgrass. *Bioenerg. Res.* 10:465-477. doi:10.1007/s12155-016-9811-6
14. †Conway, L.S., **M.A. Yost**, N.R. Kitchen, K.A. Sudduth, A.L. Thompson, and R.E. Massey. 2017. Topsoil thickness effects on corn, soybean, and switchgrass production on claypan soils. *Agron. J.* 109:782-794. doi:10.2134/agronj2016.06.0365
15. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, A.L. Thompson, and E. Allphin. 2017. Topsoil thickness and harvest management influence the productivity and profitability of switchgrass. *Agron. J.* 109:985-994. doi:10.2134/agronj2016.09.0561
16. **Yost, M.A.**, B.K. Randall, N.R. Kitchen, and E.A. Heaton. 2017. Yield potential and nitrogen requirements of *Miscanthus × giganteus* on eroded soils. *Agron. J.* 109:684-695. doi:10.2134/agronj2016.10.0582.
17. Karlen, D.L., N. Goeser, K.S. Veum, and **M.A. Yost**. 2017. On-farm soil health evaluations: Challenges and opportunities. *J. Soil Water Conserv.* 72:26A-31A.
18. †Conway, L.S., **M.A. Yost**, N.R. Kitchen, and K.A. Sudduth. 2017. Using topsoil thickness to improve site-specific phosphorus and potassium management on claypan soils. *Agron. J. In Press*. doi:10.2134/agronj2017.01.0038
19. Grabber, J.H., **M.A. Yost**, J.A. Coulter, and M.L. Sullivan. 2017. Nitrogen and tillage responses of sorghum-sudangrass following short-term legume and non-legume forages. *Agron. J. In Press*.
20. Bobryk, C., **M.A. Yost**, and N.R. Kitchen. 2017. Quantifying field variability and vulnerability for supporting precision agriculture opportunity. *Prec. Agric. (Accepted with revision)*.
21. †Walker, Z.T., J.A. Coulter, M.P. Russelle, R.T. Venterea, A.P. Mallarino, J.G. Lauer, and **M.A. Yost**. 2017. Do soil tests help forecast nitrogen response in first-year corn following alfalfa on fine-textured soils? *Soil Sci. Soc. Am. (Accepted with revision)*.
22. †Walker, Z.T., **M.A. Yost**, M.P. Russelle and J.A. Coulter. (2017). Nitrogen rate and application time influence corn following alfalfa on fine-textured soils. *Crop Sci. (In review)*.
23. **Yost, M.A.**, K.S. Veum, N.R. Kitchen, J.E. Sawyer, J.J. Camberato, P.R. Carter, R.B. Ferguson, F.G. Fernández, D.W. Franzen, C.A. Laboski, and E.D. Nafziger. (2017). Evaluation of the soil health nutrient tool for corn nitrogen recommendations across eight midwest states. *J. Soil Water Conserv. (In review)*.
24. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, and E. Allphin. (2017). *Miscanthus × giganteus* growth and nutrition on 22 producer fields. *Bioenergy Res. (In review)*.
25. **Yost, M.A.**, K.A. Sudduth, C.L. Walthall, and N.R. Kitchen. (2017). International review of collaborative public-private precision agriculture research, education, and development opportunities. *Prec. Agric. (In review)*.
26. Conway, L.S., **M.A. Yost**, N.R. Kitchen, K.A. Sudduth, K.S. Veum. (2017). Cropping system, landscape position, and topsoil depth affects soil fertility and nutrient buffering. *Soil Sci. Soc. Am. (In review)*.

ADDITIONAL PUBLICATIONS

1. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, C.C. Sheaffer, and D.E. Kaiser. 2010. Validating topdressed K fertilizer recommendations in an alfalfa-corn rotation. In: Proc. Nutrients in Our Environment Conf., Mankato, MN. 18 Feb. 2010. Conservation Technology Information Center, West Lafayette, IN. p. 2. http://www.ctic.org/media/pdf/Poster_Booth_Abstracts.pdf.
2. Coulter, J., M. Russelle, **M. Yost**, D. Kaiser, J. DeJong-Hughes, J. Tesmer, N. Winter, L. Stahl, J. Sackett, J. Paulson, and D. Nicolai. 2010. Agronomic management of alfalfa-corn rotations: An opportunity for Extension education. In: Proc. Univ. of MN Extension Fall Program Conf., St. Paul, MN. 4-6 Oct. 2010. Univ. of MN, St. Paul. p. 8-9.
3. Russelle, M., **M. Yost**, J. Coulter, C. Sheaffer, and D. Kaiser. 2010. Is fertilizer nitrogen required for first- year corn after alfalfa? In: Proc. Minnesota Forage Res. Symp., St. Cloud, MN. 17-18 Nov. 2010. Midwest Forage Assoc., St. Paul, MN. p. 22.
4. **Yost, M.**, M. Russelle, J.A. Coulter, C. Sheaffer, and D. Kaiser. 2010. Reductions in potash for last-year alfalfa production. In: Proc. Minnesota Forage Res. Symp., St. Cloud, MN. 17-18 Nov. 2010. Midwest Forage Assoc., St. Paul, MN. p.12.
5. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, C.C. Sheaffer, and D.E. Kaiser. 2011. Validating potassium fertilizer guidelines in alfalfa-corn rotations. In: Proc. 41st North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 16-17 Nov. 2011. International Plant Nutrition Institute, Brookings, SD. p.20-27. <http://extension.agron.iastate.edu/nce/ncepdfs/2011/ncsf%202011%20yost%20p20.pdf>.
6. Coulter, J., **M. Yost**, M. Russelle, C. Sheaffer, and D. Kaiser. 2011. Nitrogen management during the rotation from alfalfa to corn. In: Proc. Univ. of MN Extension Fall Program Conf., St. Paul, MN. 3-5 Oct. 2011. Univ. of MN, St. Paul. p. 13.
7. Coulter, J., **M. Yost**, M. Russelle, C. Sheaffer, and D. Kaiser. 2011. Accounting for alfalfa N credits increases returns to corn production. In: Forage Focus, Dec. issue. Midwest Forage Assoc., St. Paul, MN. p. 20.
8. **Yost, M.A.** 2011. Potassium and nitrogen management during the rotation from alfalfa to corn. Univ. of Minnesota. pp. 91 (M.S. Thesis).
9. Coulter, J., **M. Yost**, and M. Russelle. 2012. Nitrogen management for first-year corn after alfalfa. Plant Management Network Focus on Corn Webcast Series, St. Paul, MN. Apr. 2012. <http://www.plantmanagementnetwork.org/edcenter/seminars/corn/NitrogenManagement/>.
10. **Yost, M.A.**, M.P. Russelle, J.A. Coulter. 2012. Predicting fertilizer nitrogen response in first-year corn following alfalfa. In: Proc. 42nd North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 14-15 Nov. 2012. International Plant Nutrition Institute, Brookings, SD. p. 167. <http://extension.agron.iastate.edu/nce/ncepdfs/2012/ncsf%202012%20yost%20p167.pdf>.
11. Coulter, J., **M. Yost**, and M. Russelle. 2012. Yield and nitrogen benefits for corn following alfalfa. In: Hay Silage Pasture Forage. 13(9):32-33. Progressive Forage Grower, Jerome, ID. http://www.progressiveforage.com/digital_edition/2012/09/#?page=34.
12. Coulter, J., **M. Yost**, and M. Russelle. 2012. Predicting on-farm nitrogen credits from alfalfa to second- year corn. Minnesota Corn Growers Assoc., Shakopee, MN. <http://www.mncorn.org/research/soil-fertility-tillage/predicting-farm-nitrogen-credits-alfalfa-second-year-corn>.

13. **Yost, M.**, J. Coulter, and M. Russelle. 2013. Improved predictability of fertilizer nitrogen need for corn following alfalfa. In: Forage Focus, May issue. Midwest Forage Assoc., St. Paul, MN. p. 18.
14. Russelle, M., **M. Yost**, T. Morris, and J. Coulter. 2013. Alfalfa N credits to second-year corn larger than expected. In: Forage Focus. December issue, Midwest Forage Assoc., St. Paul, MN. p. 4-5.
15. **Yost, M.**, J. Coulter, and M. Russelle. 2013. Nitrogen for corn following alfalfa: When and how much? In: Dairy Star. 15(1):29. Dairy Star LLC, Sauk Centre, MN. <http://issuu.com/dairystar/docs/2-23-13-zone1?e=1210578/1561426>.
16. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, and P.V. Bolstad. 2013. Geographic trends in alfalfa stand age and crops that follow alfalfa. In: Proc. 43rd North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 20-21 Nov. 2013. International Plant Nutrition Institute, Brookings, SD. p. 129-136. <http://extension.agron.iastate.edu/nce/ncepdfs/2013/ncsfc%202013%20yost%20pg129.pdf>.
17. **Yost, M.A.** 2013. Nitrogen management for corn following alfalfa: Field, literature, and geographic analyses. Univ. of Minnesota. pp. 203 (Ph.D. Dissertation).
18. **Yost, M.**, J. Coulter, M. Russelle, and M. Davenport. 2014. Cash in on N credits when corn follows alfalfa. In: Hay and Forage Grower. January issue, Penton Media, Inc., New York, NY. p. 24-25. <http://hayandforage.com/alfalfa/cash-nitrogen-credits-when-corn-follows-alfalfa>.
19. **Yost, M.**, M. Russelle, J. Coulter, and P. Bolstad. 2014. Satellite images reveal patterns in crop rotations with alfalfa. In: Forage Focus. May issue, Midwest Forage Assoc., St. Paul, MN. p. 4-5.
20. **Yost, M.**, M. Russelle, J. Coulter, and M. Davenport. 2014. Challenges, opportunities for improved N management in corn following alfalfa. In: Clippings. June issue, Midwest Forage Assoc., St. Paul, MN.
21. **Yost, M.**, M. Russelle, J. Coulter, M. Schmitt, G. Randall, and C. Sheaffer. 2014. Nitrogen requirements of corn following young alfalfa stands. In: Forage Focus. August issue, Midwest Forage Assoc., St. Paul, MN. p. 21.
22. **Yost, M.**, J. Coulter, and M. Russelle. 2014. When does corn following alfalfa need nitrogen? In: Forage Quarterly. August issue, Univ. of MN Ext., St. Paul, MN. p. 3. <http://www.extension.umn.edu/agriculture/forages/newsletter/docs/FQ-AUG-2014-Vol-3-No-1.pdf>.
23. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, M.A. Schmitt, C.C. Sheaffer, and G.W. Randall. 2014. Stand age affects fertilizer nitrogen response in first-year corn following alfalfa. In: Proc. 44th North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 19-20 Nov. 2014. International Plant Nutrition Institute, Brookings, SD. p.20.
24. †Walker, Z.T., **Yost, M.A.**, J.A. Coulter, and M.P. Russelle. 2014. Accuracy of credits and soil indices for predicting nitrogen response in corn following alfalfa. In: Proc. 44th North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 19-20 Nov. 2014. International Plant Nutrition Institute, Brookings, SD. p.206.

25. †Walker, Z., **M. Yost**, J. Coulter, and M. Russelle. 2015. How accurate are plant and soil tests at predicting the need for nitrogen in corn following alfalfa. In: Clippings. January issue, Midwest Forage Assoc., St. Paul, MN.
26. **Yost, M.**, M. Russelle, J. Coulter, M. Schmitt, G. Randall, and C. Sheaffer. 2015. Stand age affects nitrogen credits to first-year corn. In: Forage Quarterly. January issue, Univ. of MN Ext., St. Paul, MN. p. 7-8. <http://www.extension.umn.edu/agriculture/forages/newsletter/docs/FQ-JAN-2015-Vol-2-No-1.pdf>.
27. Coulter, J.A., Z. Walker, **M. Yost**, and M. Russelle. 2015. Sidedressing and soil testing for enhanced nitrogen fertilizer management in corn following alfalfa on fine-textured soils. In: Forage Focus. August issue, Midwest Forage Assoc., St. Paul, MN. p. 20.
28. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, and A.L. Thompson. 2015. Topsoil depth influences switchgrass nitrogen management on claypan soils. In: Proc. 45th North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 3-4 Nov. 2015. International Plant Nutrition Institute, Brookings, SD. p.216.
29. †Conway, L., N.R. Kitchen, **M.A. Yost**, K.A. Sudduth, and A.L. Thompson. 2015. Determining cropping system and topsoil depth effects on phosphorus and potassium nutrient dynamics. In: Proc. 45th North Central Ext.-Industry Soil Fert. Conf., Des Moines, IA. 3-4 Nov. 2015. International Plant Nutrition Institute, Brookings, SD. p.217.
30. **Yost, M.A.**, J. A. Coulter, and M.P. Russelle. 2015. Managing the rotation from alfalfa to corn. Univ. of MN Ext. Bulletin, St. Paul, MN. p. 1-16.
31. Sadler, E.J., C. Baffaut, K.A. Sudduth, R.N. Lerch, N.R. Kitchen, E.D. Vories, K.S. Veum, and **M.A. Yost**. 2016. Central Mississippi River Basin LTAR site overview. 5th Interagency Conference on Research in the Watersheds, 2-5 Mar. 2015, Charleston, SC. p. 61-67.
32. †Skouby, D.M., L. Schumacher, **M.A. Yost**, and N.R. Kitchen. 2016. A content review of precision agriculture courses in the United States and Canada. In: Proc. 13th Int. Conf. on Prec. Agric., St. Louis, MO. 31 July - 4 Aug. 2016.
33. **Yost, M.A.**, N.R. Kitchen, K.A. Sudduth, S.T. Drummond, and E.J. Sadler. 2016. A decade of precision agriculture impacts on grain yield and yield variation. In: Proc. 13th Int. Conf. on Prec. Agric., St. Louis, MO. 31 July - 4 Aug. 2016.
34. †Conway, L.S., **M.A. Yost**, N.R. Kitchen, K.A. Sudduth, and D.B. Myers. 2016. Claypan depth effect on soil phosphorus and potassium dynamics. In: Proc. 13th Int. Conf. on Prec. Agric., St. Louis, MO. 31 July - 4 Aug. 2016.
35. Bobryk, C.W., **M.A. Yost**, and N.R., Kitchen. 2016. Field potential soil variability index to identify precision agriculture opportunity. In: Proc. 13th Int. Conf. on Prec. Agric., St. Louis, MO. 31 July - 4 Aug. 2016.
36. Kitchen, N.R., K.A. Sudduth, G.M. Bean, S.T. Drummond, and **M.A. Yost**. 2016. Will algorithms modified with soil and weather information improve in-field reflectance-sensing corn nitrogen applications? In: Proc. 13th Int. Conf. on Prec. Agric., St. Louis, MO. 31 July - 4 Aug. 2016.

INVITED AND OTHER PRESENTATIONS

Invited

1. **Yost, M.A.**, M.P. Russelle, J.A. Coulter, C.C. Sheaffer, and D.E. Kaiser. 2010. Validating topdressed potassium fertilizer recommendations in an alfalfa-corn rotation. MN Crop Prod. Retailers Trade Show, Minneapolis, MN. 7 Dec. 2010.
2. **Yost, M.A.**, and J.A. Coulter. 2011. Nitrogen management for corn after alfalfa. Univ. of MN Southern Research and Outreach Center Winter Crops Day, Kasson and Waseca, MN. 13 Jan. 2011.
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