

CURRICULUM VITAE

NAME

Bauder, Troy A

ADDRESS

Soil and Crop Sciences
College of Agricultural Sciences

Plant Sciences
Campus Delivery 1170 Colorado State University

PHONE

(970) 491-4923

EDUCATION

1997 MS, Colorado State University

1993 BS, Colorado State University

ACADEMIC POSITIONS

July 2002 - Present Senior Research Associate, Colorado State University.

OTHER POSITIONS

1996 - 2000 Assistant Extension Water Quality Specialist/Research Associate, Colorado State University.

PUBLISHED WORKS

Refereed Journal Articles

Bartlett, A. C., Andales, A. A., Arabi, M., Bauder, T. A. (2015). An iPhone App to Extend Use of a Cloud-based Irrigation Scheduling Tool. *Computers and Electronics in Agriculture*(111), 127-130. dx.doi.org/10.1016/j.compag.2014.12.021

Gleason, D. J., Andales, A. A., Bauder, T. A., Chavez, J. L. (2013). Performance of atmometers in estimating reference evapotranspiration in a semi-arid environment. *Agricultural Water Management*, 130, 27-35. dx.doi.org/10.1016/j.agwat.2013.08.008

Refereed Chapters in Books

Andales, A. A., Bauder, T. A., Arabi, M. (2014). A Mobile Irrigation Water Management System Using a Collaborative GIS and Weather Station Networks. In Ahuja, Lajpat R.; Ma, Liwang; Lascano, Robert J. (Ed.), *Practical Applications of Agricultural System Models to Optimize the Use of Limited Water. Advances in Agricultural Systems Modeling book series*. ASA-SSSA-CSSA. dx.doi.org/10.2134/advagricysystmodel15.c3

Stednick, J. D., Paschke, M. W., Sutherland, P. L., Walker, R. D., Bauder, T. A. (2010). Environmental considerations for coalbed natural gas development in Colorado, Chapter 10. *Coalbed Natural Gas: Energy and Environment*. Hauppauge, NY: Nova Science Publishers, Inc.

Non-Refereed Journal Articles

Bartlett, A. C., Andales, A. A., Bauder, T. A., Wardle, E. M. Modifying a Sugar Beet Crop Coefficient Curve for a Semi-Arid Climate in Northeastern Colorado. *Agricultural Water Management*.

Non-Refereed Proceedings or Transactions

Bauder, T. A., Waskom, R. M. (2013). *Using Irrigation Nitrogen Credits for Grain Crops* (vol. 10, pp. 49-53). Brookings, SD: Western Nutrient Management Conference. www.ipni.net/ipniweb/conference/wnmc.nsf/0/211DA715452CE0AA85257BF8004DF04D

Waskom, R. M., Bauder, T. A., Sternlieb, F., Kallenberger, J. (2012). Advancing Agricultural Water Conservation In Colorado. *Proceedings of the USCID Water Management Conference: Irrigated Agriculture Responds To Water Use Challenges -Strategies For Success* (pp. 101-111). Denver, CO: US Committee on Irrigation and Drainage.

Pearson, R. J., Bauder, T. A. (2009). *Utilizing Cover Crops to Stabilize and Reclaim Previously Irrigated Cropland*. Washington, D.C.: USDA-NIFA, National Water Program.

Keske, C. M., Bauder, T. A., Irrer, A. (2012). *Colorado Nutrient Management Practices 1997-2011: Costs and Technological Advances*. Denver, CO: Colorado Department of Public Health and the Environment.

Bauder, J., Bauder, T. A. (2012). *Water Research, Outreach, and Teaching in the Northern Plains and Mountains Region - Impacts and Outcomes, 2000-2012*. Northern Plains and Mountains Regional Water Program (USDA/NIFA). www.region8water.org

Bauder, T. A. (2011). Agricultural Water Conservation in the Northern Plains and Mountains Region. *Proceedings - 2011 National Water Conference; Washington, DC* (vol. 2011). Washington, D.C.: USDA NIFA. <http://www.usawaterquality.org/conferences/2011/default.html>

AES Report/Bulletin

Pearson, C. H., Bauder, T. A., Wardle, E. M. *Conservation Tillage under Furrow Irrigation*. AES Technical Report.

Wardle, E. M., Bauder, T. A., Pearson, C. H. (2015). *Guidelines for Using Conservation Tillage Under Furrow Irrigation* (TR 15-10 ed.). Colorado Agricultural Experiment Station.

Bauder, T. A., Keske, C. M.H., Wardle, E. M. (in press). *Colorado Nutrient Management Practices: A Summary of Adoption Rates and Costs* (TR13-10 ed.). Ft. Collins, CO: Colo. Ag. Expt. Station.

CE Report/Bulletin/Factsheet

Bauder, T. A., Waskom, R. M., Arrieta, C. B. (2014). *Best Management Practices for Pesticide and Fertilizer Storage and Handling XCM-178*. CSU Extension. www.ext.colostate.edu/pubs/crops/xcm178.pdf

Bauder, T. A., Schneekloth, J. S., Wardle, E. M. (2013). *Irrigated Field Guide and Record Book* (XCM228 ed.). Ft. Collins, CO: Colo. State Univ. Extension.

Waskom, R., Kallenberger, J., Grotz, B., Bauder, T. A. (2013). *Addressing the Impacts of Wildfire on Water Resources* (no. 6.706 ed.). Ft. Collins, CO: Colo. State Univ. Extension. www.ext.colostate.edu/pubs/natres/06706.html

Bauder, T. A., Walker, C. B., Arrieta, C. B. (2013). *Pesticide Record Book for Private Applicators - 2013 Edition* (XCM202 ed.). Ft. Collins, CO: Colo. State Univ. Extension.

Reich, D., Bauder, T. A., Scott, J., Champion, D. (2011). Chapter 7: Irrigation Management. *Intermountain Grass and Legume Forage Production Manual - 2nd Edition XCM238* (XCM238 ed.). Ft. Collins, CO: Colo. State Univ. Extension.

Bauder, T. A. (2011). *Irrigation Water Quality Criteria (major revision)* (Factsheet 0.506 ed.). CSU Extension. <http://www.ext.colostate.edu/pubs/crops/00506.html>

Bauder, T. A. (2011). *Nitrogen and Irrigation Management - revision* (Factsheet no. 0.514 ed.). Ft. Collins, CO: Colo. State Univ. Extension. www.ext.colostate.edu/pubs/crops/00514.html

Andales, A. A., Chavez, J. L., Bauder, T. A. (2011). *Irrigation Scheduling: The Water Balance Approach* (Fact Sheet 4.707 ed.). CSU Extension.

Bauder, T. A. (2010). *Best Management Practices for Agricultural Pesticide Use to Protect Water Quality* (XCM-177 ed.). Ft. Collins, CO: Colorado State University Extension. www.ext.colostate.edu/PUBS/CROPS/xcm177.pdf

Andales, A. A., Bauder, T. A. (2010). *The Colorado Agricultural Meteorological Network (CoAgMet) and Crop ET Reports* (Fact Sheet No 4.723 ed.). Colo. State Univ. Extension. www.ext.colostate.edu/pubs/crops/04723.pdf

Waskom, R., Bauder, T. A. (2009). *Protecting Your Private Well* (XCM-179 ed.). Ft. Collins, CO: Colorado State University Extension. www.ext.colostate.edu/PUBS/CROPS/xcm179.pdf

Schneekloth, J., Bauder, T. A. (2009). *Limited Irrigation Management: Principles and Practices* (Fact Sheet No. 4.720 ed.). Colorado State University Extension.

Interactive Water Quality Interpretation Tool

Bauder, T. A., Kallenberger, J. (2014). *Water Quality Interpretation Tool*. Colorado State University. <https://www.erams.com/wqtool/>

Material Regarding New Courses/Curricula

Bauder, T. A., Hansen, N. (2011). *Limited Irrigation of Alfalfa in the Great Plains and Intermountain West - Continuing Education Module*. Madison, WI.: Am Soc of Agronomy, International Certified Crop Adviser Program.

Bauder, T. A. (2010). *Assessing the Suitability of Water (Quality) for Irrigation - Salinity and Sodium* (Self Study Module No ss-03998 ed.). Madison, WI: American Soc of Agronomy, Certified Crop Adviser.

Bauder, J. W., Bauder, T. A. (2010). *Guide to Choosing Crops Well-Suited to Limited Irrigation* (No ss-03918 ed.). Madison, WI: American Soc of Agronomy, Certified Crop Adviser Self Study Module. region8water.colostate.edu/PDFs/Irrigation%20Management%20with%20Limited%20Water.pdf

Bauder, T. A. (2009). *Principles and Practices for Irrigation Management with Limited Water* (Self Study Module No ss-03883 ed.). Madison, WI: American Soc of Agronomy, Certified Crop Adviser Program.

Newsletter

- Andales, A. A., Arabi, M., Bauder, T. A. (2013). *A Mobile Irrigation Scheduling Tool for Colorado* (4th ed., vol. 30, pp. 10-13). Fort Collins, CO: Colorado Water Institute. wsnet.colostate.edu/cwis31/ColoradoWater/Images/Newsletters/2013/CW_30_4.pdf
- Wardle, E. M., Bauder, T. A. (2012). *Demonstrating Conservation Tillage Techniques for Surface Irrigated Fields in Northern Colorado* (1st ed., vol. 29, pp. 14-16). Ft. Collins, CO: Colorado Water - Colo Water Institute.
- Kallenberger, J., Bauder, T. A. (2012). *Guiding Landowners and Agencies Dealing with Domestic Energy Development in the Northern Plains and Mountain* (vol. 29, pp. 22-23). Ft. Collins, CO: Colorado Water - Colo. Water Institute.
- Bauder, T. A. (2012). *Nutrient Management Practices and Groundwater Protection - Assessing Adoption by Colorado Producers* (4th ed., vol. 29, pp. 10-Aug). Fort Collins, CO: Colorado Water - Colo. Water Institute.
- Bauder, T. A. (2010). *Using cover crops to stabilize previously irrigated land* (1st ed., vol. 27). Ft. Collins, CO: Colorado Water Institute.
- Bauder, T. A., Pearson, R. (2010). *Protecting Ground Water Quality through Well, Septic System Education*. Denver, CO: Colorado Nonpoint Source News.
- Bauder, T. A., Doesken, N., Schwartz, H. F., Bartolo, M. E. (2009). *Demonstration of the Colorado Agricultural Meteorological Network (COAGMET) for Improved Irrigation and Pest Management in the Arkansas Valley* (3rd ed., vol. 26). Colorado Water - Colorado Water Institute.

Recordkeeping Folder

- Team, R. W., Bauder, T. A. (2009). *Information and guidelines for your septic system*. Northern Plains and Mountains Regional Water Program (USDA NIFA).
- Team, R. W., Bauder, T. A. (2009). *Information and guidelines for your water well*. Northern Plains and Mountains Regional Water Program (USDA/NIFA).

Research Report

- Hansen, N., Bauder, T. A., Deering, J., Flynn, R., Wardle, E. M. (in press). *Alternatives to Permanent Dry Up of Formerly Irrigated Lands*. Boulder, CO: DiNatale Water Consultants for the Colorado Water Conservation Board.

Software

- Andales, A. A., Arabi, M., Bartlett, A. C., Bauder, T. A., Wardle, E. M., Traff, K. A. (2015). *Water Irrigation Scheduler for Efficient Application (WISE)*. Colorado State University. wise.colostate.edu/
- Bartlett, A. C., Andales, A. A., Bauder, T. A., Arabi, M. (2014). *Water Irrigation for Efficient Scheduling (WISE) iPhone App*. Colorado State University via Apple. itunes.apple.com/us/app/w.i.s.e./id928128681?mt=8

Technical Report

- Bauder, T. A. (2013). *Agricultural Chemicals and Groundwater Protection in Colorado* (vol. No. 23). Fort Collins, CO: Colorado Water Institute Special Report No 23. www.cwi.colostate.edu/publications/SR/23.pdf
- Bauder, T. A., Waskom, R. M. (2011). *Economic Considerations of Nutrient Management BMPs*. Denver, CO:

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

November 3, 2014, "Stable Isotopes and Sources of Groundwater Nitrate in Colorado", ASA, CSSA, and SSSA International Meeting, American Society of Agronomy, (Presenter) Bauder, T. A., Long Beach, CA.

November 3, 2014, "Nutrient Management on Irrigated Farms in Colorado: Factors Affecting the Adoption of Best Management Practices", ASA/SSSA/CSSA International Annual Meeting, American Society of Agronomy, Long Beach, CA.

October 27, 2014, "Water and Potatoes", San Luis Valley Industry Workshop, Colorado State University and CPAC, (Presenter) Essah, S. Y., Bauder, T. A., Adams State University, Alamosa.

November 6, 2013, "Nutrient, Sediment and Herbicide Runoff Impacts from Conventional and Conservation Tillage Systems Under Furrow Irrigation", ASA, CSSA, and SSSA International Meeting, (Presenter) Bauder, T. A., Tampa, FL.

November 4, 2013, "Using N15 and O18 Isotopes to Determine Groundwater Contamination Sources in Colorado", ASA, CSSA and SSSA International Meeting, (Presenter) Dilka, A., Tampa, FL.

March 7, 2013, "Using Irrigation Nitrogen Credits for Grain Crops", Western Nutrient Management Conference, WERA-103 Nutrient Management and Water Quality, Reno, NV.

2012, "Bauder, T.A. Protecting Water Resources During Oil and Gas Development from Boom to Bust. Portland, OR. General Session of the Land Grant/Sea Grant National Water Conference. May 22, 2012".

2012, "Driscoll, J., N. Hansen, T. Bauder and E. Wardle. Water Quality Impacts and Yield Comparisons Between Conventional Tillage and Two Conservation and Tillage Systems Under Furrow Irrigation in the Semi-Arid Western United States. Cincinnati, OH, Amer. Soc. Agron. Nat. Meeting. October 24, 2012".

October 23, 2012, "Performance of Atmometers in Estimating Reference Evapotranspiration in a Semi-Arid Environment", (Presenter) Gleason, D., Cincinnati, OH.

2011, "Bauder, T., R. Waskom, F. Sternlieb and J. Kallenberger and J. Bauder (MSU). Agricultural Water Conservation in the Northern Plains and Mountains Region. USDA/NIFA Land/Sea Grant National Water Conference. Feb 1, 2011. Washington, DC".

2011, "Kallenberger, J., R. Waskom, T. Bauder, A. Sigler, J. Bauder, T. Scherer, D. Today, N. Mesner, and G. Paige. Integrating Water Research, Outreach

and Teaching in the Northern Plains and Mountains Region. Feb. 2, 2011 National Water Conference; Washington, D.C."

2011, "Kallenberger, J., Sternlieb, F., R. Waskom, T. Bauder, J. Bauder, and E. Wardle. Agricultural Water Conservation Clearinghouse - An Online Tool for Water Resource Professionals, Managers and Academia. Am. Soc. Agronomy Nat. Meeting. San Antonio, TX. Oct. 18, 2011."

2011, "Sternlieb, F., J. Kallenberger, T. Bauder, R. Waskom, and J. Bauder. Agricultural Water Conservation Clearinghouse - An Online Tool for Water Resource Professionals, Managers and Academia. U.S. Society for Irrigation and Drainage Professionals. Albuquerque, NM. April 27, 2011."

2010, "Kallenberger, Julie. Reagan Waskom. Troy Bauder. James Bauder. Tom Scherer. Dennis Todey, Nancy Mesner, Ginger Paige. Integrating Water Research, Outreach, and Teaching in the Northern Plains and Mountains Region. Hilton Head, SC. 2010 Land Grant and Sea Grant National Water Conference. Feb. 22, 2010."

OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD

(January 1998 - December 31, 2015). Certified Crop Adviser, American Society of Agronomy.

(January 2013 - January 2015). CPR, AED, First Aid, American Red Cross.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2015	Fall	SOCR699 - Thesis	18	11
2014	Spring	SOCR699 - Thesis	18	10
2013	Fall	SOCR699 - Thesis	18	5

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Fall	SOCR171 - Environmental Issues in Agriculture	1	Face to Face
2015	Fall	GRAD592 - Interdisciplinary Water Resources Seminar	3	Face to Face
2015	Fall	AGRI300/500 - Issues in Agriculture	1	Face to Face
2015	Fall	SOCR421 - Soil and Crop Management Systems II	1	Face to Face

2015	Spring	SOCR320 - Forage and Pasture Management	1	Face to Face
2014	Fall	SOCR171 - Environmental Issues in Agriculture	1	
2014	Fall	GRAD592 - Interdisciplinary Water Resources Seminar	1	Face to Face
2014	Fall	AGRI300/500 - Issues in Agriculture	1	
2014	Fall	SOCR421 - Soil and Crop Management Systems II	1	
2014	Spring	SOCR320 - Forage and Pasture Management	1	
2014	Spring	SOCR370 - Irrigation Principles	1	
2013	Fall	AGRI300 - Issues in Agriculture	1	
2013	Fall	SOCR421 - Soil and Crop Management Systems	1	
2013	Fall	SOCR350 - Soil Fertility Management		
2013	Spring	SOCR320 - Forage Management	1	

EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

Advisory Committee Meeting

Ag Chemicals and Groundwater Protection Advisory. Adult. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 30%. 1st Quarter 2015.

Ag Chemicals and Groundwater Protection Advisory Committee. Lakewood, CO. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 25%. 2012.

Agency Update

CDPHE/CSU Nutrient Update. Ft. Collins, CO. Number of times program was made: 1. Total number of participants: 8. Percent Responsible: 50%. 2012.

Direct email and phone questions

Water Quality Contacts by Phone and Email. CO. Number of times program was made: 135. Total number of participants: 120. Percent Responsible: 100%. 2012.

Email

Water and Crop related emails. Adult. Number of times program was made: 170. Total number of participants: 170. Percent Responsible: 100%. 2015.

Crop Production Questions (email). Number of times program was made: 52. Total number of participants: 52. Percent Responsible: 100%. 2014.

Water Related Questions (email). Number of times program was made: 103. Total number of participants: 103. Percent Responsible: 100%. 2014.

Field Day

Tillage Site Tour for Colorado Corn Growers. Adult. Number of times program was made: 1. Total number of participants: 25. Percent Responsible: 90%. 4th Quarter 2015.

Conservation Tillage Systems under Furrow Irrigation. Percent Responsible: 50%. 2011.

Flood Q/A tip sheet

2013 Flood FAQs from CSU Extension. Number of times program was made: 1. Percent Responsible: 20%. 2012.

Multiple Outreach Methods

Outreach related to Las Animas River mine spill. Adult. Number of times program was made: 25. Percent Responsible: 100%. 3rd Quarter 2015.

Phone Call

Water and Crop related phone calls. Number of times program was made: 60. Total number of participants: 60. Percent Responsible: 100%. Full Year 2015.

Crop Production Topics. Number of times program was made: 25. Total number of participants: 25. Percent Responsible: 100%. Full Year 2014.

Water Related Calls. Number of times program was made: 35. Total number of participants: 35. Percent Responsible: 100%. Full Year 2014.

Poster at USDA/ARS Field Day

WISE Irrigation Scheduling. Number of times program was made: 1. Total number of participants: 60. Percent Responsible: 100%. 3rd Quarter 2014.

Presentation

Nutrients in Colorado Water and Agriculture. Adult. Number of times program was made: 3. Total number of participants: 125. Percent Responsible: 100%. 2015.

CLEAN Center Research Update. Adult. Number of times program was made: 2. Total number of participants: 20. Percent Responsible: 25%. 1st Quarter 2015.

Pesticide Fate in the Environment. Adult. Number of times program was made: 2. Total number of participants: 200. Percent Responsible: 100%. 1st Quarter 2015.

Region 8 EPA Update. Number of times program was made: 1. Total number of participants: 30. Percent Responsible: 100%. 1st Quarter 2015.

Water Quality Issues in the S. Platte Basin. Adult. Number of times program was made: 1. Total number of participants: 30. Percent Responsible: 100%. 1st Quarter 2015.

SOGES Panel on Las Animas Mine Spill. Adult. Number of times program was made: 1. Total number of participants: 150. Percent Responsible: 20%. 4th Quarter 2015.

CLEAN Center Kickoff. Number of times program was made: 1. Total number of participants: 55. Percent Responsible: 100%. 1st Quarter 2014.

Flood Recovery, Testing and Restoration for Crop Fields. Number of times program was made: 2. Total number of participants: 65. Percent Responsible: 100%. 1st Quarter 2014.

Groundwater Advisory Committee Update. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 100%. 1st Quarter 2014.

Nutrient BMP Adoption in Colorado. Number of times program was made: 1. Total number of participants: 200. Percent Responsible: 100%. 1st Quarter 2014.

Addressing Nutrient NPS Pollution in the S. Platte. Number of times program was made: 1. Total number of participants: 15. Percent Responsible: 100%. 2nd Quarter 2014.

Private Wells & Septic Systems - Considerations for Real Estate Professionals. Number of times program was made: 2. Total number of participants: 75. Percent Responsible: 100%. 2nd Quarter 2014.

Water Quality Considerations for Lawn Care Professionals. Number of times program was made: 1. Total number of participants: 250. Percent Responsible: 100%. 2nd Quarter 2014.

Water Quality in the S. Platte Watershed. Number of times program was made: 1. Total number of participants: 25. Percent Responsible: 100%. 2nd Quarter 2014.

Water Management and Conservation Projects in Colorado. Number of times program was made: 1. Total number of participants: 12. Percent Responsible: 100%. 3rd Quarter 2014.

Water Research Update on San Luis Valley. Number of times program was made: 1. Total number of participants: 40. Percent Responsible: 100%. 4th Quarter 2014.

Advanced Irrigation Water Scheduling - Old and New Tools for Colorado. Number of times program was made: 1. Total number of participants: 75. Percent Responsible: 75%. 2012.

Bauder, T. and K. Keske-Hoag. Nutrient

BMP Adoption in Colorado. Update to IPNI staff. Fort Collins, CO. August 9, 2012. 2012.

Bauder, T. Groundwater Advisory Committee Update - Nutrient BMP Adoption Among Colorado Producers. Denver, CO. Feb 24, 2012. Number of times program was made: 1. Percent Responsible: 100%. 2012.

Bauder, T. Irrigation Scheduling – Boot heel to Mobile Apps. Montrose, CO. Energy and Water Conservation in Western Colorado Workshop. March 1, 2012. 2012.

Bauder, T., E. Wardle and J. Driscoll. Update for Conservation Tillage Project. CSU ARDEC/Conservation Tillage Project Field Day, AUG, 3, 2012. 2012.

Bauder, T.A. A Closer Look at Your River – The Cache La Poudre. Windsor, CO/Windsor Elementary School Water Challenge Program. January 30, 2012. 2012.

Bauder, T.A. Nutrient Management Considerations and Drought. Loveland, CO. CSU Extension Winter Crop Clinic. November 28, 2012. 2012.

Bauder, T.A. Water Issues and Agriculture in Colorado and the Western U.S. Fort Collins, CO, USAID Pakistan Program. June 18, 2012. 2012.

Bauder, T.A., Pesticides and Groundwater Update. ARDEC/Western Pesticide Meeting. October 22, 2012. 2012.

Driscoll, J., N. Hansen, T. Bauder and E. Wardle. Water Quality Impacts and Yield Comparisons Between Conventional Tillage and Two Conservation and Tillage Systems Under Furrow Irrigation in the Semi-Arid Western United States. Cincinnati, OH, Amer. Soc. Agron. Nat. Meeting. October 24, 2012. 2012.

eRAMS Irrigation Scheduler - A cloud-based irrigation scheduling tool. Sterling, CO. Number of times program was made: 1. Total number of participants: 37. Percent Responsible: 100%. 2012.

Gleason, D., T Bauder, A. Andales and J. L. Chavez. Performance of Atmometers in Estimating Reference Evapotranspiration in a Semi-Arid Environment. Cincinnati, OH/Amer. Soc. Agron. Oct. 23, 2012. 2012.

Oil and Gas Exploration and Impacts to Irrigation Water Quality in Colorado. Number of times program was made: 1. Total number of participants: 12. Percent Responsible: 100%. 2012.

Soil Moisture Management - Concepts and Methods. Brighton, CO. Number of times program was made: 1. Total number of participants: 55. Percent Responsible: 100%. 2012.

Troy Bauder, Andrew Ross
& Karl Mauch. Nutrients in Colorado's
Water -Implications for Agriculture.
Rocky Mt. Agribusiness Association
Annual Meeting.
January 10, 2012. 2012.

Wardle, E. and T. Bauder. Demonstrating
Conservation Tillage Methods and
Benefits Under Furrow Irrigation - A
Collaborative Project with University,
Conservation District, Producer, and
Industry Participation. Loveland,
CO/CSU Extension Fall Crop Clinic. Nov.
27, 2012. 2012.

Your Watershed - The Cache la Poudre Watershed. Ft. Collins, CO. Number of times program was made: 1. Total number of participants: 40. Percent Responsible: 100%. 2012.

Agricultural Best Management Practices for Watershed Protection. Percent Responsible: 100%. 2011.

Collaborative Projects and Opportunities with Conservation Districts. Percent Responsible: 75%. 2011.

Conservation Tillage Methods and Benefits Under Furrow Irrigation. Percent Responsible: 50%. 2011.

Demonstrating Conservation Tillage Methods and Benefits Under Furrow Irrigation - A Collaborative Project with University, Conservation District, Producer, and Industry Participation. Percent Responsible: 25%. 2011.

Education and Outreach Update. Percent Responsible: 50%. 2011.

Potential water quality monitoring for Lincoln County. Percent Responsible: 25%. 2011.

Wells and Septic Systems. Percent Responsible: 100%. 2011.

Best Management Practices to Prevent Nutrient Transport From Agricultural Fields. Percent Responsible: 100%. 2010.

Colorado Agriculture and Groundwater Quality - Progress and Challenges. Percent Responsible: 85%. 2010.

Colorado Water Quality and Agriculture What's Old, What's New? Percent Responsible: 75%. 2010.

Colorado Water-Related Extension Programs, Advisory Committee, Agri-chemicals and Groundwater Protection Program. Percent Responsible: 100%. 2010.

Irrigation Water Quality 101. Percent Responsible: 100%. 2010.

Protecting YOur Groundwater - A homeowner's guide to well and septic systems. Percent Responsible: 75%. 2010.

Public Attitudes and Values Regarding Water. Percent Responsible: 50%. 2010.

Public attitudes regarding water in the west. Percent Responsible: 50%. 2010.

Studies and Strategies for Transitioning out of Irrigation. Percent Responsible: 85%. 2010.

Corn Response to Limited Irrigation Management. Percent Responsible: 33%. 2009.

Public Attitudes and Values Regarding Water Conservation, Use and the Environment. Colorado Watershed

Assembly, Annual Conference, Vail, CO. Percent Responsible: 75%. 2009.

Tour

Extension Water Tour. Adult. Number of times program was made: 1. Total number of participants: 12. Percent Responsible: 10%. 3rd Quarter 2015.

Water Quality Questions by Phone and Email

Directly Answer Water Questions. CO. Number of times program was made: 150. Total number of participants: 145. Percent Responsible: 100%. 2012.

Webinar

Soil Moisture Management - Concepts and Methods. Fort Collins, CO. Number of times program was made: 1. Total number of participants: 12. Percent Responsible: 90%. 2012.

Your Property and Water Quality - Protecting Your Family and the Environment. Ft. Collins, CO. Number of times program was made: 1. Total number of participants: 13. Percent Responsible: 90%. 2012.

Website Visit

CSU Conservation Tillage www.conservationtillage.colostate.edu. Adult. Number of times program was made: 75. Total number of participants: 60. Percent Responsible: 50%. Full Year 2015.

Groundwater Quality Database https://erams.com/co_groundwater/. Number of times program was made: 50. Percent Responsible: 75%. Full Year 2015.

Water Quality Interpretation Tool: <https://erams.com/wqtool/>. Number of times program was made: 3541. Total number of participants: 2620. Percent Responsible: 50%. Full Year 2015.

waterquality.colostate.edu. Number of times program was made: 200. Percent Responsible: 75%. Full Year 2015.

Extension Water Quality Program Page. Number of times program was made: 2100. Total number of participants: 2500. Percent Responsible: 75%. Full Year 2014.

Workshop

CLEAN Center Facilitated Discussion of nutrient issues. Adult. Number of times program was made: 1. Total number of participants: 100. Percent Responsible: 50%. 1st Quarter 2015.

South Platte Ag Nutrients Committee Meeting. Adult. Number of times program was made: 1. Total number of participants: 15. Percent Responsible: 50%. 2nd Quarter 2015.

2015 Crop Clinic. Adult. Number of times program was made: 1. Total number of participants: 65. Percent Responsible: 30%. 4th Quarter 2015.

2015 S. Platte Forum. Adult. Number of times program was made: 1. Total number of participants: 185. Percent Responsible: 10%. 4th Quarter 2015.

WISE Irrigation Scheduling Training. Number of times program was made: 4. Total number of participants: 35. Percent Responsible: 50%. 3rd Quarter 2014.

Fall Crop Clinic. Number of times program was made: 1. Total number of participants: 42. Percent Responsible: 33%. 4th Quarter 2014.

Evapotranspiration Workshop: New Technologies and Methods for Estimating ET. Ft. Collins, CO. Number of times program was made: 1. Total number of participants: 150. Percent Responsible: 25%. 2012.

Online Irrigation Scheduler Stakeholder Meeting. Ft Collins, CO. Number of times program was made: 1. Total number of participants: 20. Percent Responsible: 33%. 2012.

S. Platte Forum. Longmont, CO. Number of times program was made: 1. Total number of participants: 185. Percent Responsible: 10%. 2012.

Soil, Water, Insect and Crop Management and Drought. Greeley, CO. Number of times program was made: 1.
Total number of participants: 120. Percent Responsible: 50%. 2012.

eXtension email Questions

Answer eXtension System Questions. Number of times program was made: 5. Percent Responsible: 100%.
2012.

eXtension email responses

eXtension email responses. Number of times program was made: 10. Percent Responsible: 100%. 2012.

COMMITTEES

Christ Life Student Fellowship, (September 2009 - May 2015).

CSU/Coke China Watershed Assessment Team, (September 2012 - December 2013).

ARDEC Visioning, (October 2014 - Present).

Search Chair - Regional Extension Water Specialist, (September 2014 - March 2015).

Potato Growers/AES Review, (September 2014 - January 2015).

Giddings Soil Probe Supervision, (July 2009 - Present).

Search Committee - Seed Position, (October 1, 2013 - January 2014).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Society of Agronomy.

Soil and Water Conservation Society.

Soil Science Society of America.

Channel 7 TV. (October 20, 2014).

Member, Industrial Hemp Committee - Colorado Dept. of Ag. (July 22, 2013 - Present).

Officer, Secretary, WERA-103; Western Extension/Education Region Nutrient Management and Water Quality Committee. (2010 - Present).

Reviewer, Ad Hoc Reviewer, USDA/ARS. (2004 - Present).

Member, Colorado Nonpoint Source Alliance. (January 2001 - Present).

Member, Pesticide Environmental Review Team - CDA. (January 2001 - Present).

Reviewer, Ad Hoc Reviewer, CSU Extension. (2000 - Present).

Reviewer, Journal Article, Journal of Soil and Water Conservation. (2000 - Present).

Conference-Related, S. Platte Forum Planning Committee. (1998 - Present).

Committee Member, Rocky Mountain Agribusiness Association. (January 1, 2010 - December 31, 2012).

Member, eXtension Community of Practice. (January 2011 - January 2012).

Member, International Certified Crop Adviser Program - Exam Subcommittee. (January 1, 2005 - December 31, 2010).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

Prepare/Grade Certification Exams, Colorado Crop Adviser Program - Exam committee. (2005 - Present).

Task Force Member, Colorado Groundwater Program. (January 2015 - December 2015).
