

**2017 Risk Management Education
Partnerships Program**

Application

Testing Reduction of Dairy Financial Risk through Grazing and Insurance

Project Number: 13532

Amount Requested: \$95,920

Submission Date: Pending

Regional Office: National

Delivery State(s): Illinois, Iowa, Minnesota, Wisconsin

Project Director

Helene Murray

Executive Director

University of Minnesota

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Co-Project Director(s)

Jane Jewett

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Project Contact

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Executive Summary

Dairy farmers using managed grazing (MiG) in the Upper Midwest demonstrate the potential for reduced feed costs and higher profitability when well-managed pasture is a major source of forage. Wider adoption of MiG into dairy systems has been limited due to concerns about labor costs, risk, and unfamiliarity with grazing techniques and forage crop insurance. Documentation of these factors will help dairy farmers make sound decisions and educators give better advice. This project will collect and analyze data clarifying financial risks and benefits of MiG and crop insurance. Data sources will be 7 case studies of dairy operations in IL, IA, MN and WI that use MiG, existing dairy grazing financials; and forage crop insurance information. Case studies and fact sheets will be developed in collaboration with RMA. Field days will convey information about MiG and financial and environmental risk reduction to farmers and educators in 7 locations across the four states of IL, IA, MN and WI. There will be 5,470 farmer and 225 educator contacts; 280 farmers and 70 educators will gain face-to-face knowledge MiG and financial performance; 75 farmers will pursue steps toward adopting MiG; 30 farmers will draft grazing plans.

Proposed Results

What Producers Will Learn, Achieve, Apply

Proposed Result	Topic	Producer action	When measured	Est #	How will you verify?
1. Case study subjects will state they have learned how grazing impacts their profits and cash flow	Cost of production and financial benchmarking	Understand	Conclusion of interview	7	Written Evaluation, Personal Interview
2. Case study subjects will chart their annual grazing use on a per-month basis, compared to monthly feed bill	Cost of production and financial benchmarking	Analyze	During on-farm financial analysis	7	Assignment Completion
3. Case study subjects will test drought scenarios with and without forage crop insurance to determine impact on operation	Economics of input decisions	Analyze	During on-farm financial analysis	7	Assignment Completion
4. Case study subjects will determine their likelihood of purchasing forage crop insurance	Economics of input decisions	Decide	conclusion of financial analysis and formula testing	7	Pre/Post Assessment
5. Case study subjects will create 3-year plan for increasing, maintaining or decreasing grazing based on scenario testing results	Business and strategic planning	Develop	After on-farm financial analysis and formula testing is complete	7	Assignment Completion
6. Field day participants will state they have learned the potential of grazing to improve their profits and cash-flow	Economics of input decisions	Understand	End of field day	200	Pre/Post Assessment
7. Field day participants will state they have learned the potential of PRF and WFP to reduce their financial risk of grazing	Business and strategic planning	Understand	End of field day	200	Pre/Post Assessment
8. Field day participants will state they have learned potential of grazing to protect environment and reduce their compliance risk (soil, water)	Environmental regulations	Understand	End of field day	200	Pre/Post Assessment
9. Field day participants will test potential impact of forage crop insurance in their operation	Business and strategic planning	Analyze	During field day	75	Personal Interview, Pre/Post Assessment

10. Field day participants will construct their own monthly feed bill chart	Economics of input decisions	Analyze	Three weeks post-field day	75	Online Evaluation, Assignment Completion
11. Field day participants will set goals for adding grazing to operations	Business and strategic planning	Decide	Three weeks post field day	30	Online Evaluation
12. Field day participants will create draft grazing plans	Business and strategic planning	Develop	Six weeks after field day	30	Phone Interview, Online Evaluation, Written Action Plan

Audience Emphasis

- Beginning producers
- Established producers
- Livestock producers
- Retiring/transitioning producers

Statement of Work

What project team does	RMA role	Who is responsible	When measured	Estimated #
1. Project team in-person meeting in SW WI or NE IA (central location) to identify potential case study subjects, do detailed planning on case study subject requirements, interview protocols, data collection protocols.	review project plan and recommend how best to include forage crop insurance in interview and data collection protocols	Jane Jewett for MISA and Laura Paine for DGA	10/15/2017	0
2. MISA, DGA, and MPFWG members identify seven dairy farmers who use grazing and are willing to be case study subjects. MISA begins tracking of case study work.		Jane Jewett for MISA and Laura Paine for DGA	11/1/2017	0
3. Three MPFWG members take FINPACK or equivalent training. MISA verifies training and reimburses their expenses.		Jane Jewett for MISA	11/1/2017	0
4. Trained MPFWG members conduct interviews and collect financial data from the 7 case study subjects. MISA tracks progress of case study interviews.	Review interviews and recommend how to incorporate forage crop insurance into financial analysis	Jane Jewett for MISA	12/1/2017	7
5. Trained MPFWG members complete financial analysis of case study farms, focusing on impact of grazing with and without crop insurance, on their cash flow and feed costs. Farmers advise as needed.	Consult with case study writers regarding details of WFP and PRF programs.	Jane Jewett for MISA and Laura Paine for DGA	1/1/2018	7
6. Trained MPFWG members compile farm financial data and provide to financial analyst. MISA receives invoices and travel expense reimbursement requests from interviewers, makes payments, and pays honoraria to farmers.		Jane Jewett for MISA	1/15/2018	0
7. DGA financial consultant develops formulas for feed cost savings and impact of PRF and WFP from existing tools and new data from case study subjects, showing financial effect of adding grazing acres to farm. DGA supervises financial consultant and approves invoicing. MISA receives invoice from financial consultant and makes payment.	Consult with financial analyst regarding details of PRF and WFP.	Laura Paine and Tom Cadwallader for DGA	2/1/2018	0
8. Trained MPFWG members assist with case study subjects' test of formulas for feed cost savings & use of WFP and PRF.	Provide feedback if issues arise with formulas for crop insurance	Jane Jewett for MISA	2/15/2018	7

9. Trained MPFWG members collect 3-year grazing plans for addition to case study write-ups. MISA tracks work on this post-analysis phase of case studies; receives payment requests from MPFWG members doing work with farmers and makes payments.	Jane Jewett for MISA	2/20/2018	7
10. Writing contractors complete draft write-ups of 7 case studies and 4 associated fact sheets about dairy grazing, feed cost reduction, PRF & WFP. DGA supervises writing contractor and approves invoicing. MISA receives invoices from writing contractors and makes payment.	Jane Jewett for MISA and Laura Paine for DGA	3/15/2018	0
11. MISA compiles and edits case studies & fact sheets. Review of drafts by farmers.	Jane Jewett for MISA	4/15/2018	7
12. Design & layout contractor completes layout of 7 case studies & 4 fact sheets. MISA supervises design & layout contractor, receives invoicing from contractor, and makes payments.	Jane Jewett for MISA	5/1/2018	0
13. MISA, DGA, and MPFWG members and farmer hosts plan 7 on-farm dairy grazing field days. Budgets are created for each field day. MISA receives field day budgets and distributes field day funds to local MPFWG members organizing field days.	Jane Jewett for MISA and Laura Paine for DGA	6/30/2018	7
14. Project team & all MPFWG members promote on-farm dairy grazing field days to organizations, grazing educators, subscribers to listservs, etc. MISA tracks promotion efforts.	Jane Jewett for MISA	7/15/2018	0
15. Project team and farmer hosts conduct 7 on-farm dairy grazing field days; RMA staff attend and present if available	Jane Jewett for MISA and Laura Paine for DGA	8/15/2018	350
16. Project team and trained MPFWG members assist with use of the formulas at field days	Jane Jewett for MISA and Laura Paine for DGA	8/15/2018	75
17. MISA sends reminder and sample chart of monthly feed bills to all workshop participants. Farmers construct their own chart of monthly bills.	Jane Jewett for MISA	9/1/2018	75

<p>18. MISA sends reminder, sample goal statement, and grazing plan template to all workshop participants; and offers to connect participants to grazing educators to assist with grazing plan.</p>	<p>Assist with answering farmer questions about forage crop insurance as they consider grazing goals and plans</p>	<p>Jane Jewett for MISA</p>	<p>9/1/2018</p>	<p>30</p>
<p>19. MISA with assistance from MPFWG conducts follow-up evaluation surveys of workshop participants, both farmers and educators; farmers who worked on monthly feed bill charts; farmers who worked on grazing plans; and anyone who downloaded materials from the website.</p>		<p>Jane Jewett for MISA</p>	<p>9/20/2018</p>	<p>200</p>
<p>20. MISA compiles evaluation data and completes final project report</p>		<p>Jane Jewett for MISA, Helene Murray for MISA</p>	<p>9/28/2018</p>	<p>0</p>

Proposal Narrative

Dairy producers in the Upper Midwest states of IA, IL, MN, and WI struggle with high input costs and volatile milk prices. Grazing can mitigate dairy input costs because well-managed pasture is a renewable resource under the farmer's control. Simultaneously, perennial forage established in strategic locations can greatly reduce soil erosion and water runoff from adjacent row-cropped fields, and help farmers meet environmental requirements. Adoption of managed grazing (MiG) by dairies has been slow, partly due to uncertainty over its effect on farm finances. Adoption of crop insurance for forage production has also been slow in the 4-state region. Uncertainty among dairy producers and farm educators about the value of forage crop insurance hampers adoption. This project will generate information, stories, and scenario-testing tools needed to develop a clearer picture of the likely financial effects of grazing and forage crop insurance use on specific farms. Increased familiarity and comfort level will drive adoption of MiG on more dairy farms in this region.

We will develop seven financial case studies of dairy farms that incorporate MiG. A total of 7 farms x 5 days x 8 hours = 280 hours will be spent on financial analysis of the seven farms. Financial data from these farms, along with existing dairy farm data from sources such as FINBIN, will be used to create formulas for estimating the impact of grazing on feed costs. Information from RMA about crop insurance options for forage production, specifically PRF and WFP, will be used in conjunction with the grazing data to develop formulas for estimating the farm financial benefit of MiG and forage crop insurance. The formulas will be available at field days and online in a format that allows farmers to input their own farm information and test different scenarios for MiG adoption. Case studies and summary fact sheets, available in print and online, will help dairy farmers in the Upper Midwest consider options for MiG adoption and provide resources to help them get started.

Information generated will be delivered to farmers through seven on-farm field days, hosted by farmers who were subjects of case studies. There will be two field days in Iowa, two in Minnesota, two in Wisconsin, and one in Illinois. Field days will be 6 hours long, so $6 \times 7 = 42$ training hours will be provided through field days. We estimate an attendance of 50 farmers and farm educators at each field day in a ratio of 80% farmers and 20% educators, thus reaching 280 farmers and 70 educators in direct face-to-face educational activities. Field days related to grazing and soil health have recently drawn 75 to 150 people in this 4-state region based on reports from MPFWG members. Dairy grazing is a more specific topic area and we therefore anticipate somewhat lower attendance. MPFWG and its core members have extensive reach into the grazing educator community, and will heavily promote the field days and educational materials to that audience, reaching at least 225 educators based on 70 attending field days and some overlap of those with our current email list of 200. MPFWG members estimate they each reach 300 to 500 farmers per year. Assuming that each of 225 educators reached passes along information to 20 dairy farmers, we estimate that information from this project will indirectly reach 4500 farmers in the first year after the project. We also expect each farmer who attends a field day will discuss the information with at least three other farmers, for 840 farmers reached peer-to-peer. We anticipate reaching 1,000 via our website within one year, based on 1,391 pageviews for June 2016 through June 2017.

Therefore, we expect to make 5,620 farmer contacts. Some of those will be repeated contacts, which is good: the more repeated contact with the information, the more likely a farmer will take steps toward adoption of grazing. Cost per farmer contact will be $\$95,920 / 5,620 = \17.07 . We estimate 10% of farmers directly reached by field days, or 30 farmers, will develop a grazing plan. Cost of this project per farmer actively pursuing grazing adoption: $\$95,920 / 30 = \$3,197$. We believe this is a worthwhile expenditure per farmer because adopters of grazing will then serve as role models. Having living examples within farming communities is often key to widespread adoption of a farming practice.

Dairy farmers in IA, IL, MN, and WI can potentially benefit in three ways: 1) reduction of financial risk through reduced feed costs; 2) reduction of financial risk through appropriate use of forage crop insurance; 3) reduction of legal risk through environmental protection. Farm advisors and educators will be a secondary beneficiary, because the project will provide them with new tools to enhance their ability to communicate with dairy farmers about grazing and forage crop insurance. There is the potential for benefit as well to the general public from more widespread adoption of MiG by dairy operations due to reduced soil and chemical loading of surface waters. Work by Land Stewardship Project in two MN watersheds showed water quality benefits from a 20% increase in land in perennial cover. Increased adoption of MiG by dairy producers could help watersheds achieve water quality goals.

Evaluation will be through documentation of field day attendance; documentation of downloads of materials and requests for more information; and surveys of farmers and educators. We will use an online form to collect contact information from those downloading digital version of materials, and will follow up with educators to survey their intentions of presenting the material to farmers, and to collect more detailed feedback on the value of the case studies to their work. We will survey farmers who respond to invitations to create feed bill charts and grazing plans, and will assess their ability and intentions to educate their peers.

Innovative Approach

The innovation in this project proposal is to work intensively with a limited number of farms to gain a detailed financial picture of the impact of grazing and the potential impact of forage crop insurance on the farm's cash flow and overall financial health; and then to use that data to generate scenario-testing formulas for other farmers to use. We believe that seeing the financial impact of real dairy farmers' experience with grazing, combined with the ability to test the effect of grazing and forage crop insurance in their own farm situation, will be a compelling way for dairy farmers to interact with grazing information. The project is constructed in such a way that further outreach by farm educators to farmers and by farmers to their peers will be encouraged and facilitated through making the project materials highly accessible.

Key Personnel

Helene Murray

Minnesota Institute for Sustainable Agriculture

misamail@umn.edu

612-625-8235

Role: Project Director; project oversight and reporting.

Jane Jewett

Minnesota Institute for Sustainable Agriculture

jewet006@umn.edu

218-670-0066

Role: Project Co-Director; o Project planning, project coordination o Editing and publishing of case studies in print and online o Field day coordination and attendance o Evaluation management

Laura Paine

Dairy Grazing Apprenticeship

laura@dga-national.org

608-338-9039

Role: o Project planning, assist with project coordination o Oversee financial analysis, case study and fact sheet writing o Field day assistance

Tom Cadwallader

Dairy Grazing Apprenticeship

tkcadwallader@gmail.com

715-536-9784

Role: o Conduct two on-farm financial analyses o Compile dairy grazing financial data from case studies and other sources o Analyze impact of grazing and crop insurance usage on dairy farm financial performance o Develop formulas for estimation of feed cost savings and financial risk reduction due to addition of grazing and crop insurance to dairy farms

Organizational Capacity

The Minnesota Institute for Sustainable Agriculture (MISA) is part of the University of Minnesota's College of Agriculture, Food, and Natural Resources Sciences. MISA hosts the Green Lands Blue Waters six-state network of land-grant universities, colleges, agencies, non-profit organizations, and others working on Continuous Living Cover cropping systems for improved water quality in the Mississippi River and Gulf of Mexico. MISA staffs the Midwest Perennial Forage Working Group (MPFWG), which focuses on agricultural systems that include perennial forage and grazing of annual cover crops. The Working Group includes primarily NRCS, state and county-level conservation agency staff; Extension educators, and non-profit staff in four states: IA, IL, MN, and WI. The MPFWG has been operating since 2011, has a core group of twelve members and an outreach list of >200 grazing educators, and operates a website of grazing education tools.

Dairy Grazing Apprenticeship (DGA) is a non-profit organization that operates a

program registered as a National Apprenticeship with the U.S. Department of Labor – Employment and Training Administration. DGA is based in Wisconsin with operations in nine states. They facilitate intensive mentorships between experienced dairy graziers and beginning graziers; including recruitment, vetting, and training of mentors. They are part of the MPFWG and also have their own connections to grazing educators and other farm financial advisors in the states where they operate. A University of Wisconsin-Madison emeritus professor of agribusiness is a contract farm financial analyst for DGA.

Letters of Commitment

Jim Paulson

Independent Consultant/Dairy Grazing Apprenticeship

jim@dga-national.org

507-251-4694

Role: In-depth farm financial analysis, follow-up testing of formulas with farmers, case study write-ups, fact sheet development, help with field days

Kent Solberg

Sustainable Farming Association

sevenpinesfarmandfence@gmail.com

844-922-5573

Role: In-depth farm financial analysis, follow-up testing of formulas with farmers, case study write-ups, fact sheet development, help with field days

Richard Cates

University of Wisconsin-Madison

rlcates@wisc.edu

608-265-6437

Role: Assist with recruitment of farmers, publicity, field days, other tasks as needed

Budget Narrative

Amount Requested: 95,920

Provide a detailed explanation of expenditures included on the 424-A Budget form.

a&b. Personnel & Fringe Benefits

This proposal includes a portion of a PI and a Co-PI. All of the salaries for these staff comes from grant funds.

Helene Murray is the PI for the project and is budgeted at 0.01 FTE. Her responsibilities include overall project oversight and submission of required reports.

Jane Jewett is co-PI for the project and is budgeted at 0.10 FTE. Jane is the Information Exchange coordinator for MISA and staffs the Midwest Perennial Forage Working Group. Jane will coordinate project activities; serve as editor for the case studies and fact sheets and oversee their design, layout, and publishing; create a website for project materials; and manage evaluations.

Fringe benefits at the University of Minnesota are a direct cost to the project and are calculated at the rate of 33.5%.

Salary & Fringe Detail

Name	Base Salary	Fringe Rate	FTE	Salary	Fringe
Helene Murray	87,048	33.5%	0.01	749	251
Jane Jewett	61,427	33.5%	0.10	6,292	2,108
Total Salary and Fringe Benefits					9,400

c. Travel

Travel costs in this budget include travel for:

- Project team members Laura Paine and Jane Jewett, and the financial analysis contractor, Tom Cadwallader, to attend an in-person planning meeting at the start of the grant. Lodging and meals will be required; Jane is located in northern MN; Laura and Tom are in SW WI so meeting at a central location will require more than a single day trip.
- Three educators to attend farm financial analysis training. Training is two full days; lodging and meals will be required.
- Educators to travel to 7 farms and conduct detailed financial analysis over a period of 5 days per farm. Day trips will likely be possible for some farms but lodging and meals may be required for some farms. The table below shows pro-rated lodging and mileage per educator.
- Project team members to attend field days, assist with operations and supervise evaluation surveys; one person per each of 7 field days. Lodging and meals may be required for some field days. The table below shows pro-rated lodging and mileage per project team member; \$2100 for Paine and \$2100 for Jewett. This is an average of \$600 in travel expenses per field day for total of \$4200.
- Guest speakers to attend and present at field days. Specific speakers with regional appeal will be identified once farms are selected, and will be chosen based on their potential to draw a crowd of field day attendees. Lodging and meals in

Attendance of one project team member per field day; 7 field days	Paine	455.00	109.55	2870	.535	1,535.45	2,100.00
	Jewett	455.00	109.55	2870	.535	1,535.45	2,100.00
Total for project team attendance at field days		910.00	219.10			3,070.90	4,200.00
Guest speaker travel to field day (per field day)	Selected during field day planning	130	50.65	410	.535	219.35	400.00
Total for 7 field days		910	354.55	2870	.535	1,535.45	2,800.00
Total of all travel							17,000.00

e. Supplies

- We plan to do the majority of outreach and field day promotion through digital means, but will rely on some flyers for distribution in the vicinity of the field day locations. Local partners for promotion of field days will be identified once host farms are selected. We will provide funds for local partners to do this printing and publicity.
- Case study write-ups and associated fact sheets will be printed for distribution at field days. (They will also be available online for free download.)
- We will pay for refreshments, port-a-potties, tent canopy rental, rental of chairs/benches/tables, or other venue-related expenses at each of the field days to ensure accessibility and comfort for attendees with a variety of physical abilities.

Printing and distribution of flyers and online promotions by local partners in vicinity of field day locations; \$400 per field day x 7 field days	\$2,800
Printing of case studies for distribution at field days. Estimated 6 pages/case study x 7 case studies x \$0.069/page x 350 field day participants	\$1,014

Printing of fact sheets for distribution at field days. Estimated 4 pages/fact sheet x 4 fact sheets x \$0.069/page x 350 field day participants	\$386
Refreshments and venue-related expenses, estimated at \$300 per field day x 7 field days	\$2,100
Total of all supplies	\$6,300

f. Contractual

Dairy Grazing Apprenticeship	\$17,900
Jim Paulson	\$14,100
Kent Solberg	\$9,900
Renewing the Countryside	\$4,400
Total Contractual	\$46,300

This project will involve four contracts with partnering organizations or individuals. Project activities will take place across four states, and in order to reduce travel time and build regional capacity, we will hire grazing educators from several locations across the four-state region on a contract basis. MISA will create MOUs with each organization or individual. The MOUs will serve as the contracts, and organizations or individuals will be paid based on invoices for completed work.

The project will generate seven case studies of dairy farm and four associated summary fact sheets. In order to make these items attractive and useful as outreach tools, we will hire a design & layout specialist to create a common template and do the layout.

Dairy Grazing Apprenticeship. The \$17,900 includes:

Payment to Laura Paine, program coordinator with Dairy Grazing Apprenticeship. Laura will supervise the case study financial analysis and writing contractors, participate in project planning activities as a member of the project team, and help with field day planning and delivery. (\$40 per hour salary + \$5.40 per hour fringe (13.5%))	\$5,000
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x110.13 hours	
Two in-depth farm financial analyses: 2 farms x 5 days per farm x 8 hours per day x \$75 per hour	\$6,000
Review of case study data and existing financial data on dairy grazing from FINBIN and other sources. Develop formulas for estimates of lower feed costs due to grazing, including loss protection from crop insurance. Work to be done by Tom Cadwallader.	\$4,500
60 hours x \$75 per hour	
Post-analysis follow-up work with two farms to develop case studies, test formulas, and set grazing goals.	\$1,500
2 farms x 10 hours per farm x \$75 per hour	
Write-up of two case studies:	\$900
2 farms x 6 hours per farm x \$75 per hour	
TOTAL to Dairy Grazing Apprenticeship	\$17,900

Jim Paulson. The \$14,100 includes:

Three in-depth farm financial analysis: 3 farms x 5 days per farm x 8 hours per day x \$75 per hour	\$9,000
Post-analysis follow-up work with three farms to develop case study, test formulas, and set grazing goals.	\$2,250
3 farms x 10 hours per farm x \$75 per hour	
Write-up of three case studies:	\$1,350
3 farms x 6 hours per farm x \$75 per hour	
Write-up of two fact sheets:	\$1,500
2 fact sheets x 10 hours per fact sheet x \$75 per hour	
Total for Jim Paulson	\$14,100

Sustainable Farming Association (Kent Solberg). The \$9,900 includes:

Two in-depth farm financial analyses: 2 farms x 5 days per farm x 8 hours per day x \$75 per hour	\$6,000
Post-analysis follow-up work with one farm to develop case study, test formulas, and set grazing goals. 2 farms x 10 hours per farm x \$75 per hour	\$1,500
Write-up of one case study: 2 farms x 6 hours per farm x \$75 per hour	\$900
Write-up of two fact sheets: 2 fact sheets x 10 hours per fact sheet x \$75 per hour	\$1,500
Total for Sustainable Farming Association	\$9,900

Renewing the Countryside (Brett Olson). The \$4,400 includes:

Design & layout for 7 case studies of dairy farms: 7 x \$400	\$2,800
Design & layout for 4 summary fact sheets: 4 x \$400	\$1,600
Total for Renewing the Countryside	\$4,400

h. Other

- This project involves activity across four states and requires detailed financial analysis of farms. We plan to have regional grazing educators conduct the on-farm analyses, in an effort to both limit travel expenses and build regional capacity for financial analysis of dairy operations that incorporate grazing. To advance these goals, we will pay for training in farm financial analysis for three members of the Midwest Perennial Forage Working Group.
- This project relies upon in-depth participation of dairy farmers selected for the on-farm financial analysis. They will receive the benefit of financial analysis of their farm, but will also be expected to review case study drafts and test formulas developed by the financial analyst. We will pay a stipend to the farmers for that work.
- Farmers will also serve as field day hosts. We will compensate farmers for their time spent in preparation and clean-up in order to host the field days.
- Appropriate guest speakers who are locally or regionally known will be recruited

to present at field days to help draw in attendees. We will offer honoraria to guest speakers.

FINPACK financial analysis system training; \$400 for 2-day course x 3 individuals	\$1,200
Stipends to farmers for financial analysis participation, case study review and formula testing; \$500 per farm x 7 farms	\$3,500
Stipends to farmers for serving as field day hosts; \$300 per farm x 7 farms	\$2,100
Honoraria to guest speakers at field days; \$200 per field day x 7 field days	\$1,400
Total Other	\$8,200

j. Indirect Costs

The total indirect costs were calculated using 10% of direct costs. This is the maximum allowed for this project. Indirect costs are \$8,720.

Cost per Producer

Cost per number of producer contacts, directly through field days or indirectly through educators, peers, or website: \$95,920 / 5,620 contacts	\$17
Cost per number of producers who set grazing goals and develop a grazing plan: \$95,920/30	\$3,197

Priority Commodities

Underserved commodities: livestock and forage

RMA Involvement

Project team will consult with RMA during development of interview and financial analysis protocols.

Financial analyst will consult with RMA about details of PRF and WFP insurance products prior to analysis of data from case studies and development of formulas for predicting impact of grazing and crop insurance on dairy farm financial performance. Case study and fact sheet writers will consult with RMA in the process of developing

case study reports and summary fact sheets that include information about PRF and WFP insurance products.

RMA staff will participate in field days as presenters depending on their availability.

RMA staff will be available to assist farmers preparing grazing plans with information about forage crop insurance, depending on their availability.

Final Checklist

Monday, July 10, 2017 at 5:00 PM (Eastern)

Save and Exit lets you save your application and continue working on it later.

Print and review your application before you submit it. You can do this by clicking View PDF or View Word button on the left side of your screen.

Click Submit to submit your application to be reviewed.

Application for Federal Assistance SF-424

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
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* 3. Date Received: <input type="text" value="07/10/2017"/>	4. Applicant Identifier: <input type="text"/>
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5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>
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State Use Only:

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>
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8. APPLICANT INFORMATION:

* a. Legal Name:

* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="416007513"/>	* c. Organizational DUNS: <input type="text" value="5559179960000"/>
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d. Address:

* Street1:	<input type="text" value="200 Oak Street SE"/>
Street2:	<input type="text" value="Suite 450"/>
* City:	<input type="text" value="Minneapolis"/>
County/Parish:	<input type="text"/>
* State:	<input type="text" value="MN: Minnesota"/>
Province:	<input type="text"/>
* Country:	<input type="text" value="USA: UNITED STATES"/>
* Zip / Postal Code:	<input type="text" value="55455-2070"/>

e. Organizational Unit:

Department Name: <input type="text" value="Sponsored Projects Admin."/>	Division Name: <input type="text"/>
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f. Name and contact information of person to be contacted on matters involving this application:

Prefix: <input type="text"/>	* First Name: <input type="text" value="Amy"/>
Middle Name: <input type="text"/>	
* Last Name: <input type="text" value="Bicek Skog"/>	
Suffix: <input type="text"/>	

Title:

Organizational Affiliation:

* Telephone Number: <input type="text" value="612-625-0413"/>	Fax Number: <input type="text"/>
---	----------------------------------

* Email:

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

H: Public/State Controlled Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

United States Department of Agriculture

11. Catalog of Federal Domestic Assistance Number:

10.460

CFDA Title:

Risk Management Education Partnerships

*** 12. Funding Opportunity Number:**

USDA-PP-RMED-2017

* Title:

Risk Management Education Partnerships Program

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Testing Reducation of Dairy Financial Risk through Grazing and Insurance

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="95,920.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="95,920.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

- Yes No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative:

* Date Signed:

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. Risk Management Education Partnerships	10.460	\$	\$	\$ 95,920.00	\$	\$ 95,920.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 95,920.00	\$	\$ 95,920.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Risk Management Education Partnerships				
a. Personnel	\$ 7,041.00	\$	\$	\$	7,041.00
b. Fringe Benefits	2,359.00				2,359.00
c. Travel	17,000.00				17,000.00
d. Equipment	0.00				
e. Supplies	6,300.00				6,300.00
f. Contractual	46,300.00				46,300.00
g. Construction	0.00				
h. Other	8,200.00				8,200.00
i. Total Direct Charges (sum of 6a-6h)	87,200.00			\$	87,200.00
j. Indirect Charges	8,720.00			\$	8,720.00
k. TOTALS (sum of 6i and 6j)	\$ 95,920.00	\$	\$	\$	95,920.00
7. Program Income	\$	\$	\$	\$	

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SECTION C - NON-FEDERAL RESOURCES									
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS					
8. Risk Management Education Partnerships	\$	\$	\$	\$					
9.									
10.									
11.									
12. TOTAL (sum of lines 8-11)	\$	\$	\$	\$					
SECTION D - FORECASTED CASH NEEDS									
Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter					
13. Federal	\$ 95,920.00	\$ 9,980.00	\$ 53,180.00	\$ 17,760.00	\$ 15,000.00				
14. Non-Federal	\$								
15. TOTAL (sum of lines 13 and 14)	\$ 95,920.00	\$ 9,980.00	\$ 53,180.00	\$ 17,760.00	\$ 15,000.00				
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT									
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)								
	(b) First	(c) Second	(d) Third	(e) Fourth					
16. Risk Management Education Partnerships	\$	\$	\$	\$					
17.									
18.									
19.									
20. TOTAL (sum of lines 16 - 19)	\$	\$	\$	\$					
SECTION F - OTHER BUDGET INFORMATION									
21. Direct Charges:	\$7200	22. Indirect Charges: \$720							
23. Remarks:									

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.


PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE Principal Grant Administrator
APPLICANT ORGANIZATION Regents of the University of Minnesota	DATE SUBMITTED 7/10/17

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
4040-0013

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:

Prime SubAwardee

* Name:

* Street 1: Street 2:

* City: State: Zip:

Congressional District, if known:

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: <input type="text" value="United States Department of Agriculture"/>	7. * Federal Program Name/Description: <input type="text" value="Risk Management Education Partnerships"/> CFDA Number, if applicable: <input type="text" value="10.460"/>
--	---

8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>
--	--

10. a. Name and Address of Lobbying Registrant:

Prefix * First Name Middle Name

* Last Name Suffix

* Street 1: Street 2:

* City: State: Zip:

b. Individual Performing Services (including address if different from No. 10a)

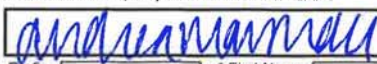
Prefix * First Name Middle Name

* Last Name Suffix

* Street 1: Street 2:

* City: State: Zip:

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: 

* Name: Prefix * First Name Middle Name

* Last Name Suffix

Title: Telephone No.: Date:



United States Department of Agriculture

AD-1049

**Certification Regarding Drug-Free Workplace Requirements (Grants)
Alternative I – For Grantees Other Than Individuals**

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. § 552(a), as amended). This certification is required by the regulations implementing §§ 5151-5160 of the Drug-Free Workplace Act of 1998 (Pub. L. 100-690, Title V, Subtitle D: 41 U.S.C. § 8101 et seq.), and 2 C.F.R. Parts 182 and 421. The regulations were amended and published on June 15, 2009, in 74 Fed. Reg. 28150-28154 and on December 8, 2011, in 76 Fed. Reg. 76610-76611. Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the grant.

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0027. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud privacy, and other statutes may be applicable to the information provided.

(Read Instructions On Page Three Before Completing Certification)

- A. The grantee certifies that it will or will continue to provide a drug-free workplace by:
1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 2. Establishing an ongoing drug-free awareness program to inform employees about –
 - a. The dangers of drug abuse in the workplace;
 - b. The grantee's policy of maintaining a drug-free workplace;
 - c. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - d. The penalties that may be imposed upon employees for drug-abuse violations occurring in the workplace.
 3. Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (A.1.).
 4. Notifying the employee in the statement required by paragraph (A.1.) that, as a condition of employment under grant, the employee will –
 - a. Abide by the terms of the statement; and
 - b. Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
 5. Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (A.4.b.) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

6. Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (A.4.b.), with respect to any employee who is so convicted –
- a. Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or, local health, law enforcement, or other appropriate agency;
7. Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (A.1. through A.6.).
- B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

PLACE OF PERFORMANCE (*Street Address, City, County, State, Zip Code*)

Street1:

Street2:

City: County:

Country:

State:

Province:

Zip / Postal Code:

Check if there are workplaces on file that are not identified here.

ORGANIZATION NAME	PR/AWARD NUMBER OR PROJECT NAME
<input type="text" value="Regents of the University of Minnesota"/>	<input type="text" value="FON: USDA-PP-RMED-2017"/>

NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)

Prefix: First Name:

Middle Name:

Last Name:

Suffix:

Title:

SIGNATURE(S)	DATE
<input type="text" value="Andrea Marshall"/>	<input type="text" value="7/10/17"/>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

Instructions for Certification

- (1) By signing and submitting this form, the grantee is providing the certification set out on pages one and two in accordance with these instructions.
- (2) The certification set out on pages one and two is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.
- (3) Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.
- (4) Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).
- (5) If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s). If it previously identified the workplaces in question, see paragraph (3) above.
- (6) Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:
 - "Controlled substance" means a controlled substance in Schedules I through V of the Controlled Substances Act, 21 U.S.C. § 812, and as further defined by 21 C.F.R. §§ 1308.11-1308.15.
 - "Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.
 - "Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance.
 - "Employee" means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) all "direct charge" employees (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement, consultants or independent contractors not on the grantee's payroll, or employees of subrecipients or subcontractors in covered workplaces).

CURRENT & PENDING SUPPORT

Name: Helene Murray

Instructions:

Who completes this template: Each project director/principal investigator (PD/PI) and other senior personnel that the Request for Applications (RFA) specifies

How this template is completed:

- Record information for active and pending projects, including this proposal.
- All current efforts to which PD/PI(s) and other senior personnel have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
- Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors, including other USDA programs.
- For concurrent projects, the percent of time committed must not exceed 100%.

Note: Concurrent submission of a proposal to other organizations will not prejudice its review by RMED

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTALS AMOUNT	EFFECTIVE AND EXPIRATION DATES	%OFTIME COMMITTED	TITLE OF PROJECT
Active:					
Murray, Helene	North Central Sustainable Agriculture Research & Education Program	\$100,000	10/01/2014 – 12/31/2017	1%	Minnesota SARE Program
Warner, Richard and Murray, Helene	Walton Family Foundation	\$200,000	01/01/2017 – 12/31/2018	2%	Green Lands, Blue Waters
Murray, Helene	USDA-NIFA	\$110,000	01/01/2017 12/31/2018	10%	MN SARE PDP State Plan of Work, Calendar Years 2017-2018
Pending :					
Murray, Helene	North Central Sustainable Agriculture Research & Education Program	\$73,584	10/01/2017 – 9/30/2019	1%	Mentoring and Teaching the Next Generation of Grazing Educators
Murray, Helene	USDA-Risk Management Education Partnerships Program	\$95,920	09/29/2017- 09/28/2018	1%	Testing Reduction of Dairy Financial Risk through Grazing and Insurance
Joannides, Jan	North Central Sustainable Agriculture Research & Education Program	\$198,987	Oct 1, 2017 - Sep 30, 2019	1%	Expanding Produce Sales through Farmers' Market Aggregation

Note: If more space is needed, please use a second form.

Form CSREES-2005 (12/2000)

CURRENT & PENDING SUPPORT

Name: Jane Jewett

Instructions:

Who completes this template: Each project director/principal investigator (PD/PI) and other senior personnel that the Request for Applications (RFA) specifies

How this template is completed:

- Record information for active and pending projects, including this proposal.
- All current efforts to which PD/PI(s) and other senior personnel have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
- Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors, including other USDA programs.
- For concurrent projects, the percent of time committed must not exceed 100%.

Note: Concurrent submission of a proposal to other organizations will not prejudice its review by RMED

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTALS AMOUNT	EFFECTIVE AND EXPIRATION DATES	%OFTIME COMMITTED	TITLE OF PROJECT
<i>Active:</i>					
Warner, Richard and Murray, Helene	Walton Family Foundation	\$200,000	01/01/2017 – 12/31/2018	10%	Green Lands, Blue Waters – Midwest Perennial Forage Working Group
<i>Pending :</i>					
Murray, Helene	North Central Sustainable Agriculture Research & Education Program	\$73,584	10/01/2017 – 9/30/2019	7%	Mentoring and Teaching the Next Generation of Grazing Educators
Murray, Helene	USDA-Risk Management Education Partnerships Program	\$95,920	09/29/2017- 09/28/2018	10%	Testing Reduction of Dairy Financial Risk through Grazing and Insurance
Joannides, Jan	North Central Sustainable Agriculture Research & Education Program	\$198,987	Oct 1, 2017 - Sep 30, 2019	10%	Expanding Produce Sales through Farmers' Market Aggregation

Note: If more space is needed, please use a second form.

UNIVERSITY OF MINNESOTA

Twin Cities Campus

*Minnesota Institute for Sustainable Agriculture
College of Food, Agricultural and
Natural Resource Sciences
University of Minnesota Extension*

*411 Borlaug Hall
1991 Upper Buford Circle
St. Paul, MN 55018*

*612-625-8235
1-800-909-MISA
Fax: 612-625-1268
<http://www.misa.umn.edu>
Email: misamail@umn.edu*

July 10, 2017

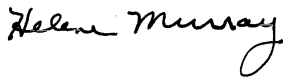
Dear RMA Partnership Grant Program Administrator:

The Minnesota Institute for Sustainable Agriculture (MISA) supports the Risk Management Education Partnership grant proposal titled, "Testing Reduction of Dairy Financial Risk through Grazing and Insurance." MISA will lead this project and be responsible for ensuring completion of all tasks: coordination of the project team; development of seven dairy farm financial case studies, scenario-testing formulas for adding grazing, and associated fact sheets; delivery of seven field days; and evaluation and reporting.

MISA provides staff support to the Midwest Perennial Forage Working Group (MPFWG) on behalf of the Green Lands Blue Waters organization, and as such has an interest in the successful deployment of strategies to increase perennial forage and grazing adoption throughout the Upper Mississippi River Basin. We recognize that dairy farms in the region are struggling with high input costs and volatile milk prices. We see this project offering these farms a viable pathway to lower feed costs and better financial stability, and providing dairy farmers with the financial information they need in order to seriously consider adding a grazing component to their farms.

The project will also benefit our MPFWG members in their grazing education work, by providing them with tools for more effective presentation of grazing as an option for dairy production. We believe this project will continue to generate positive results long after the completion of the grant term, through farm educators' work throughout the four-state region of Illinois, Iowa, Minnesota, and Wisconsin.

Yours truly,



Helene Murray
Executive Director
Minnesota Institute for Sustainable Agriculture
University of Minnesota

HELENE MURRAY

Minnesota Institute for Sustainable Agriculture
University of Minnesota
411 Borlaug Hall, 1991 Buford Circle
Saint Paul, Minnesota 55108-1013
Office: 612-625-0220
Electronic Mail: hmurray@umn.edu

Professional Experience:

Executive Director, Minnesota Institute for Sustainable Agriculture, University of Minnesota, February 2002-present
Adjunct Assistant Professor, Department of Agronomy & Plant Genetics, University of Minnesota, October 1993-present
Coordinator, Minnesota Institute for Sustainable Agriculture, University of Minnesota, October 1993-January 2002
Facilitator, Henry A. Wallace Center for Alternative Agricultural & Environmental Policy, Arlington, Virginia, 1997-99
Sustainable Agriculture Project Associate, Oregon State University, October 1988 - September 1993
Albania Assessment Team Member, Oregon State University, June 1992
Horticultural Consultant - Nepal, University of Idaho, Postharvest Institute for Perishables, Moscow, Idaho,
November 1988
Agricultural Inspector, 1985, San Luis Obispo County
U.S. Peace Corps - Nepal. Volunteer, Horticultural Extension. 1982-1984

Educational History:

Ph.D., Crop Science, minor in Extension, Oregon State University, 1993
M.S., Horticulture, Oregon State University, 1988
B.S., Fruit Science, California Polytechnic State University - San Luis Obispo, 1981

Significant Committee/Professional Service (2003 – present):

Minnesota State Fair, Renewing the Countryside's Healthy Local Food Exhibit Advisory Committee, 2016
University of Minnesota Extension Citizens' Advisory Committee, August 2012 to 2015
Value Added Producer Grant Independent Reviewer, 2014, 2015, 2016
Minnesota Farm to School Network, founding member, 2011 to present
St Paul-Ramsey County Food & Nutrition Commission member, August 2010-May 2015
The McKnight Foundation Mississippi River Program Evaluation committee, April 2010
Council on Public Engagement, University of Minnesota, 2006 to present
Associated Faculty, Interdisciplinary Center for the Study of Global Change, 2001-present
Committee Member, Applied Plant Sciences Preliminary Exam Committee, Agroecology, 2002-2004
Chair, School of Agriculture Endowed Chair in Agricultural Systems Search Committee, 2002-present
MacArthur Program Scholarship selection committee, 2001-2005, 2012, 2015
Council member, Agriculture, Food and Human Values Society (AFHVS), 2002-2005
Evaluation Panel Member, US Dept. of Commerce, National Institute of Standards & Technology, 2004
Committee Member, Emerging Issues in Soil and Water, Larson - Allmaras Lecture Series. 2003-present
Committee Member, NE 1012 "Sustaining Local Food Systems in a Globalizing Environment: Forces, Responses, Impacts." 2002-2008
Administrative Council Member for the USDA North Central Region Sustainable Agriculture Research and Education (SARE) Program, 1998-1999 and 2009-2012
Technical Committee Co-Chair for the USDA North Central Region Sustainable Agriculture Research and Education (SARE) Program, 1997-2000 and 2009-2012

Selected Publications (2007 – present):

Kang, Dong Hee, Satish Gupta, Carl Rosen, Vincent Fritz, Ashok Singh, Yogesh Chander, Helene Murray and Charlie Rohwer. 2013. Antibiotic Uptake by Vegetable Crops from Manure-Applied Soils. *Journal of Agricultural and Food Chemistry*.

Chander, Yogesh, Satish C. Gupta, Kuldip Kumar, Sagar M. Goyal, and Helene Murray. 2008. Antibiotic Use and the Prevalence of Antibiotic Resistant Bacteria on Turkey Farms. *Journal of the Science of Food and Agriculture*. 88:714-719.

Chander, Yogesh, Satish C. Gupta, Sagar M. Goyal, Kuldip Kumar and Helene Murray. 2007. Sub-therapeutic Use of Antibiotics and Prevalence of Antibiotic Resistant Bacteria on Swine Farms. In press: *Research Journal of Microbiology*.

N. Jordan, G. Boody, W. Broussard, J. D. Glover, D. Keeney, B. H. McCown, G. McIsaac, M. Muller, H. Murray, J. Neal, C. Pansing, R. E. Turner, K. Warner, D. Wyse. 2007. Sustainable Development of the Agricultural Bio-Economy. *Science*, 15 June, Vol. 316. no. 5831, pp. 1570 - 1571.

Selected Reports:

Cross-Sector Collaboration: A Report from the Minnesota Farm to School Leadership Team, May 2016
Healthy Local Food - EcoExperience · Minnesota State Fair 2013 Summary Report - Renewing the Countryside

July 10, 2017

Dear Dr. Murray,

I support the Risk Management Education Partnership grant proposal titled, “Testing Reduction of Dairy Financial Risk through Grazing and Insurance,” and will participate in the project by conducting one or more on-farm financial analyses plus case study write-ups; and then be a part of the education efforts of field days and writing fact sheets.

As a member and Co-Chair of the Midwest Perennial Forage Working Group, I am pleased to join with colleagues from four states to generate better information on dairy grazing that can help farmers reduce their input costs and financial risk. The Midwest dairy industry and across the nation is at a pivotal point as many dairy farmers face retirement and many of the next generation face financial obstacles to getting started. This provides the perfect opportunity to implement a grazing dairy to keep investment down, which reduces financial risk for new producers and promote perennial ground cover. We need to identify factors that lead to successful grazing dairies and educate the next generation of this opportunity.

Additionally, we need to develop workable strategies to implement a risk-reduction plan for beginning grazing dairies. Crop insurance tools tend to favor larger corn-soybean farmers, which is counter-productive to soil health and water quality. I believe this project could provide needed information to improve the insurance programs available.

We appreciate your consideration of our project.

Yours truly,

A handwritten signature in cursive script that reads "James C. Paulson".

James C. Paulson

Education Coordinator

Dairy Grazing Apprenticeship

James C. Paulson, M.S.

10304 County Road 10
Caledonia, MN 55921
Cell phone: 507-251-4694
Email: jcp@umn.edu

Education:

- 1989 Master of Science – Dairy Science, University of Minnesota, Twin Cities
- 1978 Bachelor of Science, Animal Science, University of Minnesota, Twin Cities

Current Position:

- 2013-present Extension Educator and Associate Professor, University of Minnesota Extension
Livestock Systems - Dairy Extension Regional Office, Rochester, MN

Previous Academic and Professional Appointments:

- 2007 – 2013 Extension Educator, Dairy and Assistant Professor. Extension
Center for Food, Agricultural and Natural Resource Sciences, University of
Minnesota Extension, Willmar, MN
- 2002 – 2006 Dairy Nutritionist and Consultant, Land O’ Lakes Feed. Plainview, MN
- 2000–2001 Director of Dairy Farm Operations and Instructor, Northeast Iowa Community
College, Calmar, IA
- 1995–2000 Dairy Nutritionist and Consultant, Farmland Feed. Plainview, MN
- 1989–1995 Nutritionist and feed mill manager, Brauer Pork, Inc. Oakford, IL
- 1984-1989 Research Assistant and Graduate student, M.S., (Ph.D. ABT), University of
Minnesota, St. Paul.
- 1979-1984 Assistant Scientist, University of Minnesota, Waseca SROC and St. Paul
Supervision and management of University dairy research herds.

Professional Societies and Memberships:

- 2012 – Present Land Stewardship Project
- 2007 – Present Midwest Forage Association
- 1984 – Present American Dairy Science Association
- 1996 – Present National Dairy Shrine

Professional Awards and Distinction

- 2015 Deans Award for Distinguished Team
- 2015 Midwest Forage Outstanding Service Award
- 2010 Minnesota Holstein Association Distinguished Service Award

Professional Development:

1. American Dairy Science Association Annual Meetings. 1985-2015. Various locations.
2. I-29 Consortium Team Development, Clarity, Focus, and Action: Coaching the Conversation workshop. 2014. Sioux Falls, SD.
3. Animal Agriculture and Climate Change. 2013. USDA NIFA Online Course.
4. I-29 Consortium Summer Team Development. 2008-2016. Brookings, SD.
5. Project Mapping Workshop Using C-Map Tools. 2011. St. Paul, MN.

SCHOLARSHIP:

Proceedings:

1. **Paulson, J. C.** 2016. Use of Cover Crops for Forage. Proceedings of the 4-State Dairy Management Conference, Dubuque, IA.
2. Cortus E, K. Janni, J. Salfer, H. Carroll, T. Erickson, **J. C. Paulson**, and S. Pohl. Evaluating Energy Use and Conservation on Dairies in the Northern Great Plains: Outreach Efforts and Needs for Periods of Heat Stress. 2015. South Dakota State University, Brookings, SD and the University of Minnesota, St. Paul, MN. 2015 ASABE Annual International Meeting. New Orleans, LA
3. **Paulson, J.C.**, J.G. Linn, M.L. Raeth-Knight, H.J. Jung. 2008. Grass versus Legume Forage for Dairy Cattle. *In*: 69th Proceedings of the MN Nutrition Conference, Shakopee, MN. Pg. 113-133.
4. Reneau, J. K., **J.C. Paulson** and J. Lukas. 2007. Trouble Shooting Herd Nutrition and Health with Control Charts. *In*: Proc: 4-State Nutrition and Management Conference, Dubuque, IA.

Professional Meeting Abstracts:

1. **Paulson, J.C.**, D. Holen, D. Nicolai, B. Heins. 2016. Evaluation of Five Cool Season Grasses and Alfalfa-Grass Mixtures. Journal of Dairy Science Suppl. Vol. 99, Abstract 16025. ADSA-ASAS Joint annual meeting.
2. Heins, B. J., **J.C. Paulson**, and H. Chester-Jones, Evaluation of production, rumination, milk fatty acid profile, and profitability for organic dairy cattle fed sprouted barley fodder. 2016. Journal of Dairy Science Suppl. Vol 99: Abstract 13067. ADSA – ASAS Joint Annual Meeting.
3. Boody, P. Wymar, A. Jaradat, **J. C. Paulson**, J Star, S. Ewest, J. Westra and B. Heins. 2016. The Chippewa 10% Project: Achieving Needed Ecosystem Services in an Agricultural Watershed Perennial Ground Cover in Grazing Systems: Modeling of outcomes National Soil and Water Conservation Annual Meeting.
4. Heins, B. J., **J. C. Paulson**, and H. Chester-Jones. 2015. Evaluation of forage quality of five grains for use in sprouted fodder production systems for organic dairy cattle. J. Dairy Sci. 98 (Suppl. 2). Abstract. 64
5. Ruh, K. E., Heins, B. J., and **J. C. Paulson**. 2015. Forage quality of two different pasture systems incorporating warm and cool season forages for grazing organic dairy cattle. J. Dairy Sci. 98 (Suppl. 2). Abstract. M119
6. **Paulson, J. C.**, B. Heins and D. Johnson. 2014. Seasonal Changes in DM, CP, NDF, and NDF Digestibility of Pasture Forage in Grazing Production Systems. Journal of Dairy Science Suppl. Vol. 97. Abstract 321. ADSA-ASAS-CSAS Joint Annual Meeting.

7. Heins, B. and **J.C. Paulson**. 2013. Effect of Organic Grain Supplementation on Milk Production of Grazing Organic Dairy Cows. JDS Vol. 96 ADSA-ASAS-CSAS Joint Annual Meeting.
8. **Paulson, J.C.**, P. Peterson, D. Holen. 2012. Alfalfa/Grass Mixtures Yield More DM, CP, NDF and dNDF Than Alfalfa in Monocultures. Journal of Dairy Science Vol. 95 ADSA-ASAS-CSAS Joint Annual Meeting.
9. **Paulson, J.C.**¹, T.M. Olson¹, G. Thoma². Does Size of Farm Affect its Carbon Footprint? University of Minnesota¹ and the University of Arkansas². 2010. Midwest ADSA Joint Annual Meeting.

Teaching Presentations:

1. **Paulson, J.C.** 2011. Winter Dairy Days. What Does Sustainability Mean to You? Litchfield, Glencoe, MN
2. **Paulson, J.C.** 2013. I-29 Annual Dairy Conference. Questions of Sustainability: This is What You Think. Sioux Falls, SD.
3. **Paulson, J.C.** 2013. Minnesota Organic Conference. Fodder – Magic or Myth? – St. Cloud, MN.

References:

Dr. Jim Linn
 Professor Emeritus
 2642 Suzanne, Circle
 St. Paul, MN 55110
linnx002@umn.edu
 612-716-2131

Dr. Hugh Chester-Jones
 Dept. of Animal Science
 SROC
 Waseca, MN 56093
chest001@umn.edu
 507-837-5618

Dr. Brad Heins
 Dept. of Animal Science
 WCROC
 Morris, MN
hein0106@umn.edu
 320-589-1711

Jane Grimsbo Jewett

Jewet006@umn.edu

218-845-2832 (home), 800-909-6472 (MISA office), 218-670-0066 (cell)

EDUCATION

1995 M.S. Plant Breeding & Genetics, University of Minnesota

1992 B.S. Science in Agriculture/Agronomy, University of Minnesota

EMPLOYMENT

2015-present	Research Fellow, Minnesota Institute for Sustainable Agriculture <i>Responsibilities include website development and maintenance, outreach and communications tools development and maintenance, editing and writing publications for MISA Information Exchange, grant writing, coordination of collaborative writing and workshop teams.</i>
2012 – 2015	Research Fellow, Green Lands Blue Waters and Minnesota Institute for Sustainable Agriculture
2011 – 2012	Green Lands Blue Waters and Minnesota Institute for Sustainable Agriculture Program Associate
1999 – 2011	Minnesota Institute for Sustainable Agriculture, Information Exchange Program Assistant
1995 – present	Farmer & direct-marketer; beef, pork, lamb, poultry; farmers' market vendor since 2009
1995 – 1999	Assistant Scientist, Forages Research, University of Minnesota
1992 – 1995	Graduate Research Assistant, Alfalfa Breeding, University of Minnesota
1988 – 1992	Various student jobs; fungi research lab attendant, alfalfa breeding project assistant, summer farm laborer

MISA INFORMATION EXCHANGE PUBLICATIONS – Authored or Edited.

Local Food Fact Sheet Series. 2017. Jane Jewett. Minnesota Institute for Sustainable Agriculture and Minnesota Farmers' Market Association; Local Food Advisory Committee.

<https://www.misa.umn.edu/publications/local-food-fact-sheet-series>

Come & Get It! What You Need to Know to Serve Food on Your Farm. 2015. Lisa Kivirist and Rachel Armstrong. Editor: Jane Jewett. Minnesota Institute for Sustainable Agriculture.

<http://www.misa.umn.edu/publications/comeandgetit>

Harvest-to-Sale Vegetable Handling. 2015. Lisa Baker, Laura Frerichs and Joan Olson. Editor: Jane Jewett. Minnesota Institute for Sustainable Agriculture.

<http://www.misa.umn.edu/publications/harvesttosalevegetablehandling>

Commercial Kitchen Guide. 2014. Karen Korslund, Greg Schweser and Rachel Grewell. Editor: Jane Jewett. Minnesota Institute for Sustainable Agriculture.

<http://www.misa.umn.edu/publications/localregionalfoodsystems/commercialkitchenguide>

Farm Transitions Toolkit. 2013. Jane Grimsbo Jewett, Hannah Lewis, Alex Baumhardt, Farmers' Legal Action Group. Contributors: Robert Maggiani and Rich Myers. Editors: Brian DeVore, Jane Grimsbo Jewett, Karen Stettler, Cathy Svejksky. Land Stewardship Project, Minnesota Institute for Sustainable Agriculture, National Center for Appropriate Technology, Farmers' Legal Action Group.

<http://www.misa.umn.edu/publications/businessandsuccessionplanning/farmtransitionstoolkit>

Wholesale Success: A Farmer's Guide to Food Safety, Selling, Postharvest Handling, and Packing Produce, 3rd edition. 2012. Senior editor: Jane Jewett; co-authors: Will Daniels, Earthbound Farm; Atina Duffley, Organic Farming Works LLC; Dennis Fiser; Delia Hollbach, FamilyFarmed.org; Jane Jewett, MISA; Amanda Korane; Jim Koan, Almar Orchards; Linda Halley, Gardens of Eagan Farm; Paul Thelen, Hillside Orchards; Shari Plimpton, CIFT/EISC; Erin Silva, University of Wisconsin; Jim Slama, FamilyFarmed.org.
<http://www.misa.umn.edu/publications/wholesalesuccess>

WEBSITE DEVELOPMENT

Forever Green. 2016. <http://www.forevergreen.umn.edu>

Grazing Educator Webinar Series. 2015.
http://greenlandsbluewaters.net/Perennial_Forage/grz_ed_webnr.html

Midwest Perennial Forage Working Group. 2013.
http://greenlandsbluewaters.net/Perennial_Forage

Clover Valley Farms Technical Case Study. 2012.
http://sustagprofiles.info/cvf_welcome.html

Green Lands Blue Waters. 2011. <http://greenlandsbluewaters.net>

Loon Organics Technical Case Study. 2010. http://sustagprofiles.info/loon_welcome.html

Organic Risk Management. 2010. <http://www.organicriskmanagement.umn.edu>

Minnesota Institute for Sustainable Agriculture. 2005; revision, 2010; revision, 2015-16
<http://www.misa.umn.edu>

GRANTS

- | | |
|-------------|---|
| 2015 – 2016 | Changing the approach to regulation of local food systems in Minnesota;
Bush Foundation Community Innovation grant |
| 2012 - 2014 | Finishing time and weights of grass-fed beef animals; North Central Region
SARE Farmer-Rancher Grant |
| 2003 | Aitkin County, MN Local Food & Farm Directory; Northeast Minnesota
Regional Sustainable Development Partnership grant |
| 1997-1999 | Surface Application of Liming Materials; Minnesota Department of Agriculture,
Energy and Sustainable Agriculture Program |

UNIVERSITY OF MINNESOTA

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*Minnesota Institute for Sustainable Agriculture
College of Food, Agricultural and
Natural Resource Sciences
University of Minnesota Extension*

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July 10, 2017

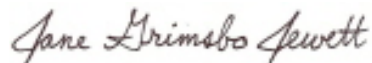
Dear Risk Management Agency Partnership Program Administrator:

As Minnesota Institute for Sustainable Agriculture (MISA) Information Exchange Program Coordinator and staff support person to the Midwest Perennial Forage Working Group (MPFWG), I support the Risk Management Education Partnership grant proposal titled, "Testing Reduction of Dairy Financial Risk through Grazing and Insurance." I will coordinate this project and be responsible for ensuring completion of project tasks: coordination of the project team; selection of dairy farms for case studies; editing, revisions, design & layout, and print and online publishing of seven dairy farm financial case studies and associated fact sheets; delivery of seven field days; and conducting and compiling evaluations.

I provide staff support to the Midwest Perennial Forage Working Group (MPFWG) and have tremendous respect for the forage and grazing knowledge and educational abilities of my colleagues who are members of that group. The concern about limited adoption of grazing by dairies has been discussed in meetings of that group and identified by members as an area where they wanted to work to make a change. These educators, who are leaders in grazing education in IA, IL, MN, and WI, have repeatedly expressed their concerns about dairy farms in the region struggling with high input costs and volatile milk prices. We see this project offering these farms a viable pathway to lower feed costs and better financial stability, and providing dairy farmers with the financial information they need in order to seriously consider adding a grazing component to their farms.

This project will directly involve grazing educators from MPFWG in developing the tools they and other educators need to effectively present grazing as a viable option for improving financial performance and resilience of dairy farms in the Upper Midwest.

Yours truly,



Jane Grimsbo Jewett
Information Exchange Program Coordinator
Minnesota Institute for Sustainable Agriculture
University of Minnesota

Kent Solberg
18618 Co. Rd. 23
Verndale, MN 56481
218-445-7580

Email:sevenpinesfarmandfence@gmail.com

EMPLOYMENT

Farmer Pastoral based dairy, pork, poultry and beef producer, 1997 to present. Award winning dairy. Animal husbandry, rotational grazing, crop and pasture management, agroforestry, operation oversight and record keeping, equipment operation and maintenance, sales, marketing and customer service. Seminar and farm tour speaker. Host learning experiences for interns.

Livestock and Grazing Specialist Sustainable Farming Association, 2011 to present. Provide farmer and agency personnel training and technical assistance on grass-based livestock systems, forage and pasture management, soil health, cover crops, fencing and livestock watering systems, farm transitions and value added marketing of livestock products.

Contractor Fence contractor, 1997 to present. Design, installation and training for agricultural fences. Order and deliver materials, supervise and train employees. Operation and maintenance of trucks, tractors and associated equipment. Retail sales of fence materials, customer service.

Adjunct Faculty M-State Fergus Falls, 2010 – 2013. Instructor for Sustainable Food Production program and environmental science. Central Lakes College, 1999 and 2001. Instructor for natural resource and biology programs.

Other 1988 – 2003. Various natural resource agency positions and consultant. Responsibilities included wildlife habitat management, statewide technical expertise concerning wildlife damage issues, conducted training for agency personnel and landowners, develop forest management and grazing plans, fire management, negotiated farming contracts on public lands, wildlife population surveys and management, noxious weed control, public relations, data collection and analysis, oversight of field personnel, publication of research.

EDUCATION

M.S., South Dakota State University, 1989
B.S., University of Montana, 1985
A.S., NDSU – Bottineau, 1982

LICENSES

Commercial Drivers License, Minnesota

REFERENCES

Available upon request.



July 10, 2017

Dear Dr. Murray,

I support the Risk Management Education Partnership grant proposal titled, "Testing Reduction of Dairy Financial Risk through Grazing and Insurance," and will participate in the project by helping identify farms for case studies, conducting an on-farm financial analysis, and/or helping organize field days. I would be interested in the proposed FINPACK (or equivalent) training to help sharpen my skills in assessing farm financial data.

As a member of the Midwest Perennial Forage Working Group, I am pleased to join with colleagues from four states to generate better information on dairy grazing that can help farmers reduce their input costs and financial risk.

I work throughout Minnesota on dairy related issues through Minnesota Dairy Initiatives (MDI). Over the past few years we have seen many dairies struggle with the low milk price. However, despite low prices there always seem to be some dairy operations that can maintain financial margins. We have observed that many of these are grazing dairies. We believe that the opportunity to share grazing as an option with other dairy producers through the financial lens could prove extremely valuable to struggling dairy operations.

A review of the impact of forage crop insurance for dairy producers through this project would help clarify the value for dairy producers. I look forward to the results and opportunity to share information from this project with other dairy producers.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kent Solberg', written over a light blue horizontal line.

Kent Solberg
Livestock and Grazing Specialist
Sustainable Farming Association
kent@sfa-mm.org
844-922-5573, Ext. 701

Laura K. Paine

Program Director
Dairy Grazing Apprenticeship
7234 Gad Rd
Medford, WI 54451
608-338-9039, laura@dga-national.org

N893 Kranz Road
Columbus, WI 53925
920-623-4407 (h)
608-338-9039 (c)
lkpaine@gmail.com

Formal Education

Certified Educator in Holistic Management, 2005. Holistic Management International

Two year training in teaching strategic planning, goal-setting, and decision-making for farmers & businesses.

Masters of Science in Horticulture, 1992. University of Wisconsin-Madison (UW)

Commercial vegetable production, a living mulch system for organic asparagus production.

Bachelors of Arts in Botany, 1976. Southern Illinois University, Carbondale

Minors in Anthropology and Art. President's Scholar. University High Honors.

Continuing Education

Lean Business Planning, October-November, 2012. Small Business Development Center, U.W. Madison

Six week program on using the lean business planning model for starting a small business.

Strategic Planning, November, 2011. UW Extension

Three day workshop on facilitating strategic planning for organizations and businesses.

Certified Professional Agronomist, 2000 to present. American Society of Agronomy

Twenty continuing education credits required annually on a balanced range of agronomic topics.

Relevant Employment

Program Director

June 2015 - present

Dairy Grazing Apprenticeship

- *The Dairy Grazing Apprenticeship is a formal farmer training program accredited with the US Department of Labor. The two year program includes 3712 hours of on-the-job training on a Master Dairy Grazing Farm as well as 288 hours of classroom instruction. The program has apprentices and Masters in WI, MN, IA, & MO.*
 - *Manage the day to day operations of the multi-state program.*
 - *Work with Technical Colleges and Universities to schedule related instruction.*
 - *Manage Board of Directors communications and quarterly meetings.*
 - *Participate in strategic planning and management as a member of the Executive team.*

Grazing Educator/Grazing Broker

February 2014-May 2015

Southwest Badger Resource Conservation and Development Council

- *Newly created position. Goals are to foster partnerships between non-farming landowners and pasture-based livestock producers to promote well-managed pastures that provide income and conservation benefits on southwest Wisconsin's highly erodible land.*

Grazing & Organic Agriculture Specialist/Economic Development Consultant

2006 to 2014

Wisconsin Department of Agriculture, Trade, & Consumer Protection

- *Newly created position. Development of statewide programming in the areas of pasture-based livestock and dairy systems and organic agriculture in Wisconsin.*
- *Establishment and coordination of the Wisconsin Organic Advisory Council, a public-private partnership to foster growth in the organic sector and provide policy advice to state and federal agencies.*
- *Administration of Grazing Lands Conservation Initiative grant program. ~\$1 million annual competitive grant program for grazing research & education, federal and state funded.*

Agriculture Agent & Associate Professor

1999 to 2006

University of Wisconsin Extension

- *Tenure track position. Needs assessment and program development serving Columbia County farmers.*
- *Coordinated diverse groups at state and local levels, including, corn growers association, grazing networks, non-farming rural landowners, master gardeners, grain marketing club.*

Coordinator, Agricultural Ecosystems Research Project

1992 to 1999

University of Wisconsin Agronomy Department

- *Newly created position. Established and coordinated the Agricultural Ecosystems Research Project, a research partnership between the University of Wisconsin, College of Agriculture, the Wisconsin Department of Natural Resources, other state and federal agencies, non-profit conservation organizations, and farmers.*
- *Responsible for bringing partners together to plan and conduct research projects, grant writing and administration, coordinating field research, supervision of field staff and graduate students, data analysis, preparation of peer reviewed papers and popular summaries, conducting field days and conferences.*

Professional Roles and Contributions

Member and Advisor, GrassWorks Board of Directors, 2000 to present

Member, Michael Fields Agricultural Institute Board of Directors, Spring 2014 to present

Member, Midwest Organic Services Association Board of Directors, 2010 to 2016.

Member, UW Center for Integrated Agricultural Systems Citizens Advisory Council, 2010 to present.

Member, Wisconsin School for Beginning Dairy Farmers Advisory Council, 2006-2009.

Member, WI Sustainable Agriculture Task Force, 2000 to present.

Member, Soil & Water Conservation Society, 1993 to Present

Selected Recent Peer-Reviewed Papers

- Chamberlain, S.K., L. K. Paine, J. L. Harrison, and R. D. Jackson. 2012. Tradeoffs in Performance of Native Warm-Season Grass Cultivars and Locally Harvested Seed Managed for Wildlife Habitat or Livestock Production. *Agronomy Journal*, 104: 5. Pp. 1383-1391.
- Franzluebbers, Alan J., Laura K. Paine, Jonathan R. Winsten, Margaret Krome, Matt A. Sanderson, Kevin Ogles, and Dennis Thompson . 2012. Well-managed grazing systems: A forgotten hero of conservation. *J. Soil and Water Cons.* 67: 4 pp. 100A- 104A.
- Hull, S., J. Arntzen, C. Bleser, A. Crossley, R. Jackson, E. Lobner, L. Paine, G. Radloff, D. Sample, J. Vandenbrook, S. Ventura, S. Walling, J. Widholm, and C. Williams. 2011. Sustainable planting and harvest guidelines for nonforest biomass. Published on-line: <http://www.wgbn.wisc.edu/?q=node/281>

Non-refereed Publications and Popular Articles

- Paine, L. and A. Sullivan. 2016. Beginning Farmers in Wisconsin: 2014 Survey Summary. <https://datcp.wi.gov/Documents/DAD/BeginningFarmerSurveyReport.pdf>
- Carusi, C. R. McNair, L. Paine, E. Silva. , 2013, 2011, 2009, 2007. Organic agriculture in Wisconsin: biennial status report. UW Center for Integrated Agricultural Systems (www.cias.edu).
- Paine, L.K. and R. Gildersleeve, 2011. A summary of beef grazing practices in Wisconsin. Published on 11/8/2011 on the WI Department of Agriculture, Trade, and Consumer Protection website. http://datcp.wi.gov/Farms/Grazing/Grazing_Resources/index.aspx
- Paine, L.K. and R. Gildersleeve. 2011. A summary of dairy grazing practices in Wisconsin. Published on 7/1/2011 on the WI Department of Agriculture, Trade, and Consumer Protection website. http://datcp.wi.gov/Farms/Grazing/Grazing_Resources/index.aspx

Selected Grants, Research, & Collaboration

- North Central Regional Sustainable Agriculture Research and Education (SARE) Professional Development Grant, 2015. Sharing soil health knowledge and practice through grazing networks. \$74,635. Authored on behalf of GrassWorks, Inc.
- Beginning Farmer and Rancher Development Grant, 2015. A pathway to livestock farming: providing access to land and a guiding hand. \$219,274. Authored on behalf of Southwest Badger RC&D.
- North Central Regional Sustainable Agriculture Research and Education (SARE) Professional Development Grant, 2011-2013. Principle investigator on a \$72,060 grant to provide training and networking opportunities in managed grazing and adult education for 50 Extension, NRCS, Land Conservation, and grant funded grazing educators in Wisconsin and neighboring states.
- North Central Regional SARE Research Grant, 2008-2010. Principle investigator on a \$148,000 grant to investigate the chemistry and culinary characteristics of grass-fed milk in selected dairy products.
- North Central Regional SARE Research Grant, 2007-2009. Partner with Iowa State Univ. and Univ. of Nebraska on \$149,966 grant documenting cost of production on 30 beef farms in the three states.



July 10, 2017

Dear Dr. Murray,

On behalf of Dairy Grazing Apprenticeship, I support the Risk Management Education Partnership grant proposal titled, "Testing Reduction of Dairy Financial Risk through Grazing and Insurance," and will participate in the project by assisting with project coordination, overseeing work on the financial analysis of seven dairy farms and development of grazing scenario-testing formulas, and assisting with field days.

As a member of the Midwest Perennial Forage Working Group, I am pleased to join with colleagues from four states to generate better information on dairy grazing that can help farmers reduce their input costs and financial risk. Dairy farmers across the Upper Midwest are facing rising input costs and volatile milk prices. The Dairy Grazing Apprenticeship program sees grazing as a key piece of financial stability for dairy farmers, but we see relatively few dairy farmers making effective use of perennial forage and grazing. The financial information about feed cost savings and risk reduction through crop insurance that will be generated by this project will be very useful in our work and that of our colleagues across the region in making a better case for grazing to more dairy farmers.

Yours truly,

A handwritten signature in cursive script that reads "Laura Paine".

Laura Paine
Program Director
Dairy Grazing Apprenticeship



Wisconsin School for Beginning
Dairy and Livestock Farmers



1535 Observatory Drive
Madison, WI 53706
608-265-6437
wsbdf.wisc.edu

Helene Murray
411 Borlaug Hall
1991 Buford Circle
St. Paul, MN 55108

July 10, 2017

Dear Dr. Murray,

I support this RMA proposal for “Testing Reduction of Dairy Financial Risk through Grazing and Insurance” and am willing to participate as needed.

My family and I developed a managed grazing livestock business in 1986. As of 2016, our son took over the operation of this business.


In 1995, I helped initiate a program at the University of Wisconsin-Madison’s Center for Integrated Agricultural Systems entitled the Wisconsin School for Beginning Dairy and Livestock Farmers (WSBDF). I have served as director of the WSBDF since its inception, and our mission is to train new farmers in pasture-based dairy and livestock business management; every student who completes our training walks out the door with a business plan.

Since the first WSBDF class, my colleagues and I have had over 550 students complete our training; about three-quarters of our graduates are farming. A well thought out business plan with managed grazing as the cornerstone of the business approach has been the principle factor in our graduates’ start-up success.

My own farming, as well as my teaching/training new farmer experiences, have shown me, without a doubt, that employment of managed grazing is a significant risk reduction approach to successful farming.

I appreciate your time and consideration.

Respectfully,

Richard L. Cates, Jr., Ph.D. 

Assoc. Director, Ctr for Integrated Ag Systems (CIAS); Director, CIAS WI School for Beginning Dairy & Livestock Farmers; Sr. Lecturer, Dept Soil Science and affiliated faculty, Agroecology, UW-Madison

If you have a passion to start farming, we're here to help you...
Emphasizing business planning and pasture-based farm management

Sponsored by the UW-Madison Center for Integrated Agricultural Systems and the Farm and Industry Short Course, both within the College of Agriculture and Life Sciences; and by American Transmission Company, Badgerland Financial, Culver’s Restaurants, Organic Valley, Trek Bikes, Wisconsin Cattleman’s Association, Wisconsin Milk Marketing Board, and Wisconsin Farmers Union; with additional support from the NIFA Beginning Farmer and Rancher Development Program and individual and corporate contributions to the UW Foundation WSBDF Endowment Fund.

Curriculum Vitae for: *THOMAS KEVIN CADWALLADER, M.S.*

Current Positions:

- Principal, Cadwallader Consulting, LLC
- Co-Owner/Operator, Stony Glen Farm
- Professor Emeritus, Department of Agriculture/Agribusiness
University of Wisconsin-Extension

Cadwallader Consulting, LLC – 2011-Present

- Agricultural Organization Planning, Development and Education
- Farm Business Financial Analysis and Planning
- Rural Community Development
- Currently under contract to provide organizational development and farm business management advisory services for the Dairy Grazing Apprenticeship, the first formal agricultural apprenticeship in the United States (<http://www.dairygrazingapprenticeship.org>).

Stony Glen Farm – 1989-Present

150-acre diversified farm operation producing and marketing maple syrup, lumber, fresh market vegetables, beef, pork and Christmas greens through a variety of commodity and direct marketing channels. I share in planning, operation and overall management decisions with my wife, Patricia.

Office and Farm Address:

N3451 Mosser Road
Gleason, WI 54435
Phone: 715.536.9784
Cell Phone: 715.218.7399
E-mail: tkcadwallader@gmail.com

Education: M.S. University of Wisconsin-Madison, 1980
Meat and Animal Science
B.S. Michigan State University, 1977
Animal Husbandry

Employment:

9/1988 – 7/2011 Agricultural Development Educator, University of Wisconsin-Extension
Lincoln and Marathon Counties
Professor – July 2000 to July 2011
Associate Professor – July 1994 to July 2000
Assistant Professor – September 1988 to July 1994

1/1997 – 1/2004 Department Head - Lincoln County University Extension

6/1986 – 9/1988 Business and Farm Manager, Upland Hills Farm, Inc., Oxford, MI

6/1980 – 6/1986 Assistant Superintendent, Spooner Agricultural Research Station, College of
Agricultural and Life Sciences, University of Wisconsin-Madison, Spooner, WI

6/1977 – 6/1980 Research Assistant, Department of Meat and Animal Science
University of Wisconsin-Madison, Madison, WI

6/1974 – 6/1977 Animal Caretaker, Sheep Teaching and Research Center, Michigan State
University, East Lansing, MI

6/1967 – 6/1974 Farm Laborer, Upland Hills Farm, Inc., Oxford, MI

Evolution of UW-Extension Position Responsibilities

I began my career with UW-Extension in 1988 as a general Agriculture Agent serving the agriculture and horticulture research and information needs of Lincoln County, Wisconsin. In 1991, after conducting an extensive survey of the agricultural community, my colleagues in the surrounding counties of Langlade and Marathon and I decided to enter into an informal agent specialization agreement to better serve the needs of the farming community. My areas of specialization were in livestock production, sustainable/organic agriculture and management intensive grazing for dairy and livestock producers.

Over the next 12 years my position evolved to include land use issues and I spent more time on agricultural business/organization planning and development and exploring value-added opportunities. In 2003 I was offered the newly created position of Agricultural Development Educator for Lincoln and Marathon Counties, one of the first such positions in the state. Items in the CV highlight the evolution of my career with UW-Extension and papers in the publications section describe the underlying reasons for the changes. My international consulting work at the end of the CV reflects that same evolution.

Although I was a specialized educator throughout my career until retirement, the communities I served still asked me to address all general agriculture and horticulture questions and issues. This included such things as pest management training, advising home gardeners and serving the needs of specialized producers and their organizations, including vegetable producers, ginseng, Christmas trees/nurseries and maple syrup.

Areas of Emphasis as Agricultural Development Educator

- Agricultural Entrepreneur, Business and Value Chain Research and Education
- Agricultural Organization and Business Development
- Grazing Based Livestock Production Systems
- Land Use and Agriculture
- Sustainable/Organic Agriculture
- Alternative/Biomass Energy

Recent Involvement in University Committees/Teams Related to Areas of Specialization

	<u>Affiliation</u>	<u>Year(s)</u>
a. Department of Ag/Agbusiness	Faculty Member	1988 – Present
b. Department of Ag/Agbusiness Professors Committee	Member/Chairman	2006 – 2011
c. Department of Ag/Agbusiness SRP Committee	Member	2004 – 2006
d. Conflict Management Education Team	Founding Member	2003 – 2011
e. Comprehensive Planning and Plan Implementation Team	Founding Member	2003 – 2007
f. Farm and Risk Management Team	Member	2002 - 2011
g. International Extension Team	Member	2002 – 2011
h. UW-Madison Sesquicentennial Land Use Faculty Cluster Hire Search and Screen	Member	1999 – 2003
i. Faculty Senate	Member	1999 – 2001
j. Land Use and Agriculture Team	Founder/Co-Leader	1998 – 2007
k. Beef Focus/Livestock Extension Team	Member	1997 – 2011
l. Wisconsin School for Beginning Dairy and Livestock Farmers	Advisor/Instructor	1996 – Present
m. Sustainable Ag Task Force Steering Committee	Founding Member	1994 – 2011
n. Sheep Team	Co-Leader	1997 – 1999
o. Heifer ICPA Team	Member	1996 – 1997
p. Grazing Dairy Systems Work Group	Member	1992 – 1997
q. Extension Meat Animal Program	Member	1988 – 1996

Recent Involvement in Professional Organizations

	<u>Affiliation</u>	<u>Year(s)</u>
a. Wisconsin Land Information Association	Member	1997 – 2011
b. Epsilon Sigma Phi – National Extension Fraternity	Member	1993 – 2011
c. National Association of County Agricultural Agents	Member	1989 – Present
d. Wisconsin Association of Agricultural Agents	Member	1989 – Present
e. Association for International Agricultural and Extension Education	Member	2008 – Present

Recent Involvement in Community and Agricultural Organizations

	<u>Affiliation</u>	<u>Year(s)</u>
a. Merrill Area Community Foundation Fund	Member/Secretary	2003 – 2016
b. Marathon County Partnership for Progressive Agriculture	Advisor	2003 – 2011
c. Wisconsin Beginning Farmer Work Group	Member	2003 – 2011
d. North Central Wisconsin Master Gardeners	Advisor	2001 – 2011
e. Great Lakes Grazing Network Steering Committee	Member	1999 – 2003
f. Lincoln County Land Use Technical Committee	Member	1998 – 2004
g. Lincoln County GIS-Department Heads Work Group	Member/Chairman	1997 – 2002
h. Central Wisconsin River Graziers	Advisor	1994 – 2011
i. North Central Wisconsin Farm Safety Committee	Member/Chairman	1994 – 2011

Honors, Awards and Grants

- As Cooperator and Business Planning Service Provider with the Dairy Grazing Apprenticeship
 - Organic Valley – Farmers Advocating for Organics Grant – Mentoring the Next Generation of Organic Dairy Farmers - 2016
 - Brookby Foundation: Establishing Managed Grazing Dairies in the Fox and Milwaukee River Valleys – 2015
 - McKnight Foundation: Training a New Generation of Farmers on Dairy Grazing in Minnesota – Increasing Pastures and Improving Water Quality – 2015
 - NRCS – Conservation Innovation Grant – Transferring Innovative Managed Grazing Skills to Historically Underserved Beginning Dairy Producers in the Great Lakes Region through Formal Apprenticeship - 2017
 - NRCS – Conservation Innovation Grant – Transferring Innovative Managed Grazing Skills to Beginning Wisconsin Dairy Farmer – 2014
 - NIFA – Beginning Farmers and Ranchers Development Program: Building Capacity, Curriculum, and Partnership for Nationwide Work-Based Training for Beginning Dairy Farmers – 2017.
 - NIFA – Beginning Farmers and Ranchers Development Program: Dairy Grazing Apprenticeship: A National Program for Training New Dairy Farmers – 2014
 - NIFA – Beginning Farmers and Rancher Development Program: GrassWorks Apprenticeship Program: Career Paths for Beginning Dairy Farmers – 2011
- The President's Volunteer Service Gold Award – 2008
 - Recognition for international agricultural development volunteer work
- The Agri-Communicator of the Year Award – 2008
 - Given by Grassworks, an organization of Wisconsin farmers devoted to promotion and improvement of grazing based livestock agriculture, to someone who has helped them achieve their goals.
- The President's Volunteer Service Silver Award – 2006
 - Recognition for international agricultural development volunteer work
- Dairy Industry Revitalization Grants:

- Agribusiness Mentoring Network Development: 2004 to 2010
- Agribusiness Incubator Development: 2003 to 2005
- Wisconsin Association of County Agricultural Agents:
 - PRIDE Award – 2001
 - Team Newsletter Award - 1993, 1994, 1996 and 2001
 - Video Tape/Television Presentation Award – 1991
- National Association of County Agricultural Agents – Second Place, National Team Newsletter Award – 1994
- UW-Extension Cross Divisional Grant on Agricultural Entrepreneurs Business Training – 2001 to 2010.
- UW-Extension Central District Grant on the Development of a Master Gardener Network – 2001 to 2007
- National Extension Leadership Development Program – 2000
- Wisconsin Farm Safety Grant to study the marketing of farm safety education – 1998 to 2004
- UW-Extension Excellence in Agricultural Programming Award – 1994

Publications Since 2000 (does not include 486 news columns and 127 presentations)

- Hemstead, K.L., R.L. Cates and T.K. Cadwallader, “Passing Along Farm Knowledge: A Mentor-Intern Handbook for Dairy and Livestock Farmers”, UW-Center for Integrated Agricultural Systems website, <http://tinyurl.com/7he4k44>, 2012.
- Barnett, K., T. Cadwallader, R. Halopka, M. Bendixen and N. Schneider, “Potassium Fertilizer Management on Pastures”, UW-Extension Team Forage website, <http://tinyurl.com/7sqny98>, 2011.
- Daigle, P., K. Barnett, T. Cadwallader, D. Cosgrove, “Lanes That Keep Dairy Animals High and Dry”, UW-Publication 3898, Cooperative Extension Publications, Madison, WI. 2009.
- Cadwallader, T.K., “AG 4.0 – Growing Agricultural Entrepreneurs for a New Age of Agriculture”, Marathon-Lincoln Agribusiness Incubator Project, 2009. Available upon request.
- Preissing, J., T. Cadwallader, A. Albrecht, “Using Group Facilitation Skills to Provide Training For Extension Service Modernization”, Proceedings of the 2009 Association for International Agricultural and Extension Education Annual Conference, San Juan, Puerto Rico, May 24-28, 2009.
- Cadwallader, T.K., “The Farmers Career Path – A Framework for Developing a Community’s Capacity to Grow Another Generation of Farmers”, Marathon-Lincoln Agribusiness Incubator website, 2008. Available upon request.
- Cadwallader, T., D. Cosgrove, UWEX Fencing Systems Series, Team Forage Website, <http://www.uwrf.edu/grazing>, 2006
- Cadwallader, T.K. and A.D. Lersch, “Fostering Public Engagement in Local Land Use Planning Recodification Projects: A Case Study from the University of Wisconsin-Extension, Lincoln County”, Journal of Higher Education Outreach and Engagement, Vol.11-No.1, Page 37. 2006
- Cadwallader, T.K., “The Changing Profile of Agriculture in Lincoln, Langlade and Marathon Counties – The Opportunities and Challenges for Extension Programming in Agricultural Development”, Marathon-Lincoln Agribusiness Incubator website, 2003. Available upon request.

Consulting/Strategic Planning work with Agricultural Organizations and Communities

- Uvuanw’o Community Based Organization – Strategic Planning and Project Development
 - 2015-Present – Reviewing and guiding strategic planning work in the group’s creation and development.
- Wisconsin Dairy Grazing Apprenticeship Program – Strategic Planning and Project Development
 - 2011-Present – Facilitated the drafting of the mission state and strategic initiatives for the Program and continue to consult on the implementation of the program.
- River District Development Foundation of Merrill

- 2011 – Facilitated the formation of the group, developed their mission statement and helped set them up as an affiliate fund with the Community Foundation of North Central Wisconsin
- Wisconsin Maple Syrup Producers Association – Strategic Plan
 - 2009-11 – Facilitated business and organizational planning process and drafted plan, including the creation of their mission and vision statements.
- Lincoln County, Wisconsin - Comprehensive Planning and Zoning Code
 - 1998 – 2001: Facilitated process and provided technical information related to agriculture
 - 2008 – 2011: Facilitated and wrote Agriculture and Economic Development Elements
- Ginseng Board of Wisconsin – Strategic Plan Efforts
 - 2005 – Facilitated planning process for general business and organizational development
 - 2008&11 – Facilitated updating of business plan and development of international marketing plan
- Ginseng and Herb Cooperative – Strategic Plan
 - 2010 – Facilitated and drafted business, organizational and marketing plan, including creation of their mission and vision statements.
- Wisconsin School for Beginning Dairy and Livestock Producers – Strategic Plan
 - 2005 – Facilitated and drafted a 10 year strategic plan and continue to advise on plan implementation.

International Consulting

Agricultural Production, Marketing and Business Management

June 23 – July 1, 1993: Macedonia – Vevcani Agricultural Cooperative

- Analyzed the current cheese producing operation and determined the type of upgrading the cooperative could implement with its existing animal and capital resources.
- Explored and evaluated various business structures, financing and marketing alternatives for expanding their current operation.

July 2 - July 9, 1993: Slovakia – Jozef Adamovic Dairy Goat Enterprise Development

- Analyzed farm resources to determine its capacity for dairy goat production.
- Advised on the establishment of production and marketing goals for a business plan.
- Advised on ways of improving forage production

September 24 – October 4, 1996: Macedonia – Simonov Veal Production

- Advised Mr. Simonov on the optimal organization of the farm, cattle housing facilities, including the feed storage facility, waste management practices and barn ventilation.
- Provided guidelines and necessary details on implementation of rotational grazing and efficient utilization of pasture resources.
- Provided current information on veal production and animal husbandry in relation to pasture veal production.

September 23 – October 27, 2000: Mongolia – Cashmere Breed Improvement Project

- Established three regional purebred cashmere goat organizations
- Helped each organization develop action plans.
- Began the process of developing a national association.

May 5 – May 20, 2002: Macedonia – Bitola Sheep and Goat Farmer’s Association Development

- Evaluated the membership needs of the association
- Provided them with training on the development of a mission statement for the association.
- Helped list the important issues that would need to be included in a mission statement
- Provided them with some methods of building leadership capacity within the association.

March 6-21, 2004: Azerbaijan – Bayram Bayramov Private Enterprise Evaluation and Development

- Mr. Bayramov was beginning to invest in the development of a small dairy herd to meet local demand for dairy products. The project involved evaluating the following factors and making a recommendation to Mr. Bayramov and Land O'Lakes on the steps that should be taken in developing his enterprise.
- Determined the short and long-term goals of Mr. Bayramov and his potential investors.
- Assessed financial, capital and management resources.
- Performed a SWOT analysis to help in evaluating potential enterprises.
- Worked with Mr. Bayramov on exploring the potential enterprises that could best match his resources.

June 18-July 4, 2005: Moldova – Singerei-Noi Greenhouse (SNG) Growers Business Development

- The SNG Growers were an informal group of small-scale vegetable greenhouse farmers who had been in operation for about five years. They were doing very well in producing for the out-of-season market and were at a point that they needed help to explore different ways to organize themselves and develop their marketing approach.
- Studied the various marketing alternatives in the cities of Chisinau and Balts and the level of market segmentation that was present.
- Visited the greenhouses of the members.
- Conducted a Strength, Weaknesses, Opportunities and Threat (SWOT) analysis with the leaders of their organization.
- Developed some marketing alternatives given the status of the marketplace and the level of cooperation they desired to work at.

May 6 – 23, 2006: Moldova – Tandor Service Cooperative Enterprise Analysis and Development.

- The Tandor Service Cooperative was faced with a pleasant problem, how to expand a successful cooperative. Formed to supply field services to private landowners the Cooperative had surpassed all of the business goals and were beginning to delve into different enterprises. Some were beginning to distract them from their core enterprises and creating some discontent among board members.
- Evaluated the various enterprises the Cooperative was involved in and contemplating.
- Worked the Board through a visioning process.
- Presented concepts of aligning and evaluating enterprises in conjunction with vision, mission and purpose.
- Helped Board evaluate which enterprises made the most sense and suggested areas for future training and development of the management and Board members.

May 8-25, 2008: Moldova – Facaro-Agro, LLC Swine Enterprise Analysis

- Facaro-Agro is a 3,500 hectare diversified farm operation in Southern Moldova. During the Soviet era it had as a part of the operation a swine production facility that the current operators were in the process of refurbishing. The purpose of this project was to help them improve their recordkeeping practices so they could better track and analyze production information.
- Assessed and charted current swine enterprise organizational structure.
- Reviewed recordkeeping system, fiscal control practices and computer capabilities.
- Based on observations developed an Excel spreadsheet that allowed management to easily review the unit's performance on a monthly basis.
- Made recommendations on steps to be taken in integrating enterprise budgets into a complete farm analysis.

August 28-September 4, 2008: Moldova – Facaro-Agro, LLC follow-up visit and CNFA Closing Conference

- Met with Facaro-Agro leadership to review the progress made on their recordkeeping and spreadsheet development project.
- In meeting with Facaro-Agro leadership determined the need to conduct a board strategic planning retreat and developed a process for reviewing their mission and focusing their goals.
- Invited as a guest speaker at CNFA's closing conference celebrating nine years of work. I was one of three volunteers selected out of over 150 involved in projects over the nine years CNFA had worked in Moldova.

Extension Service and Rural Development

December 4 – December 17, 1993: Macedonia – Primena – The Macedonian Extension Service

- Determined the computer needs of the organization and helped them select hardware and software that would possibly meet those needs.
- Developed an implementation plan to make computer technology more available to area offices and staff.
- Trained staff on various pieces of software used by Extension agriculture agents in Wisconsin.

April 1 – April 19, 1995: Ukraine – Odessa Extension Service

- Evaluated the progress on the establishment of an Extension Service in the Odessa Oblast and an experiment station at the Yeremeyevsky state farm
- Reviewed and evaluated the creation and availability of Extension resource materials at the primary Extension office in Odessa.
- Assessed the progress on the creation of a sheep enterprise to operate through the state farm.

October 1, 1996: Macedonia's First National Conference on Sustainable Agriculture

- Keynote speaker on the evolution of the Sustainable Agriculture movement in the United States.

November 13-24, 2002: Afghanistan – Afghanistan Enterprise Development Task Force

- Part of a team effort looking at various sectors of the Afghan economy. My area of expertise and contribution to the project was in the area of livestock agriculture.
- Met with Agricultural Ministers, farmers and processors to find out their most important needs in the livestock sector of agriculture.
- Toured livestock processing facilities and markets.
- Made recommendations to the US Ambassador to Afghanistan and Afghan leaders on short and long term projects that could possibly "jump start" the Afghan economy.

April 22 – May 5 & October 27-November 9, 2007: Guyana - Modernization of Guyana Extension Service

- In 2006 the Guyana Ministry of Agriculture approached the Partners of the Americas about helping them modernize their Extension Service so they could be more responsive to the changing needs of the country's farmers in an era of dramatic budget cutbacks. The University of Wisconsin Cooperative Extension Service was asked if we could help. My first trip to Guyana was an exploratory project and the second trip was the first of three projects helping them learn a new set of skills important in community development work.
- Met with farmers, Ministry staff and affiliated organizations around the country.
- Analyzed the current state of the Extension Service
- Developed a one year plan of work between UW-Extension and the Guyana Extension Service.
- Conducted a value chain gap analyses with farmer groups in two areas of the country.
- Worked with Wisconsin colleagues and Guyana staff as project progressed.

March 31-April 19 & November 3-11, 2009 and August 14-September 1, 2011: Moldova – INAGRO Agribusiness Development Park Strategic Planning

- Project was requested by the Moldovan Academy of Sciences in response to a national initiative to invest in technology parks and business incubators
- Interviewed key members of agricultural institutes, government agencies and farmers to create a core advisory group.
- Facilitated the initial phases in the development of a strategic plan, visioning and long term goals, and consulted on initial Development Park investments to move toward their vision.
- Continued to guide them in their development phases by refining their mission statement and developing logic models for achieving key objectives

October 21 – November 2, 2009: Belarus – Stolín Region Extension Service Modernization

- Met with a pilot regional Extension service on possible options for becoming a self-sustaining organization in meeting the research and information needs of small farmers.

May 31 – June 16, 2010 and February 27 – March 14, 2012: Belarus – International Foundation for Rural Development (IFRD) Strategic Planning and Plan Implementation

- This was a follow-up from the October 2009 project. The Stolín Region Extension Service was one of four community development projects that IFRD had been involved in and there was increasing demand from other communities to do more but with very limited resources. The strategic planning project provided the leadership strategies on moving forward in expanding its work in Belarus.
- Introduced the concept of Community Asset Mapping and coached the IFRD leadership on conducting mapping exercises in four communities in the Mogilev and Gomel regions, areas significantly impacted by the 1986 Chernobyl nuclear disaster. Asset Mapping uncovers the internal assets communities have to address important issues, such as job creation, and identifies missing or dysfunctional assets needed to successfully address the issue. The communities then came together to explore how they could share their resources in setting up business development centers.

March 27-April 10, 2011: Nicaragua – Strengthening the Agricultural Programs for the Fabretto Children’s Foundation – Program Evaluation and Planning

- Fabretto is a NGO (<http://www.fabretto.org>) whose mission is “*to enable impoverished Nicaraguan children and their families in underserved communities to break the cycle of poverty and reach their full potential through programs promoting education, nutrition, health, and community development.*” The project reviewed the programs offered and the resources available and gave recommendations on:
 - Improving the food quality, nutritional value and cost effectiveness of the meal programs in the schools.
 - Integrating improved agricultural production and business management practices into the curriculum of secondary school students and maintaining gardening programs for the primary school students.
 - Creating an environment in the agricultural community that will improve the likelihood of success for its graduates.

April 14-May 1, 2013: Kenya – Kitui Development Center: Program Data Collection Tools and Monitoring System Development

- The Kitui Development Center (KDC) is a regional rural development center serving Kitui County, Kenya, on a variety of community needs in family and smallholder education and organizational development (<http://kituidevelopmentcentre.yolasite.com>).
 - Identified the data and reporting needs of the KDC mango value-added project.
 - Assisted KDC staff in designing data collection tools and carried out pilot test of tools.

- Facilitated KDC in developing monitoring system for mango project.
- Trained staff on data collection, analysis and generation of reports.
- Provided recommendation on how to adapt developed tools for other KDC projects.
- Trained poultry producer and marketing association on entrepreneurship and value addition.

July 21-August 6, 2013: Kenya – CNFA Kenya: Horticulture, Oilseeds and Grains Value Chain Roundtables.

- Facilitated three roundtable discussions on the CNFA-Kenya Farmer to Farmer program impacts.
- Provided a forum for information sharing and key lessons learned for host organizations served during CNFA’s work in Kenya.
- Facilitated the creation of a self-led formal network for the host organizations and relevant partners to continue supporting their development beyond the Farmer to Farmer program.

April 19 – May 10, 2014: Kenya – Kitui Development Center: Monitoring and Evaluation System Development.

- As a follow-up to the April 2013 project, the focus of this assignment was the creation of some monitoring and evaluation tools that the KDC staff could develop and modify themselves as their projects evolved.
 - Reviewed all of the information and data needs that were identified in the various grants that the KDC staff had received.
 - Worked with KDC staff on developing an Excel spreadsheet program that included all of the various parameters and then based on that spreadsheet created input forms that could be completed by the farmers and community project leaders.
 - Piloted the forms and spreadsheet with several community groups and then created reports that were shared with the participating farmers.
 - Created a system that could be easily modified within KDC to collect information that could be used both to meet donor needs but also to be used as educational tools for the participating farmers.

February 22 – March 12, 2015: Ethiopia – Ethiopian Catholic Church Social and Development Coordination Office in Hararge (SDCOH) Organizational and Staff Capacity Development Training on Program Development, Evaluation and Reporting.

- Trained 47 SDOCH core staff at three locations (Dire Dawa, Harar and Chiro) on using the Logic Model for planning projects, developing evaluation procedures and reporting the impact of programs.
- Conducted a Real Colors Temperament Assessment training to show the importance of recognizing the different information needs for project donors and partners when writing grant proposals, measuring program impacts and writing project reports.

September 4 -26, 2015: Kenya - Feasibility Study for the Establishment of a Dairy Farmers’ Training Curriculum for Egerton University

- Met with Professor Alexander Kahi and Egerton faculty and staff members to discuss intent of project to develop a curriculum for practicing beginning dairy farmers in Kenya, similar to one offered by the University Wisconsin-Madison, separate from their current programs for students enrolled at Egerton University.
- Met with the managers of five different dairy marketing organizations (hubs), and a select set of dairy farmers, in the Eldoret area of Kenya; Kapcheno, Ndaluu, Taragoon, Lesso and Lelchego. We discussed a number of issues facing both the farmers and the organizations and how a curriculum for dairy farmers would help in their continued development.
- Presented the evolution of the beginning farmer training efforts in Wisconsin, including 20 years of experience with the Wisconsin School for Beginning Dairy and Livestock Farmers (WSBDF) and

the more recent Dairy Grazing Apprenticeship (DGA), the first agricultural apprenticeship program in the US, in Nakuru at the Regional Conference on Dairy Education and Training in Africa hosted by Egerton University.



July 10, 2017

Dear Dr. Murray,

I support the Risk Management Education Partnership grant proposal titled, "Testing Reduction of Dairy Financial Risk through Grazing and Insurance." I will participate in the project by conducting on-farm financial analyses as needed, and by compiling data from the seven case study farms along with existing dairy grazing data and forage crop insurance information to develop aggregated financial information about the impact of adding grazing to a dairy operation. I will also develop formulas based on the data for testing scenarios of forage and grazing addition to dairy farms.

Having worked with Apprentices and Journeyworkers coming through the Dairy Grazing Apprenticeship (DGA), developing realistic budgets and financial projections has been critical pieces for successfully moving toward independent farm ownership. Being a part of this project fits very well with our overall mission.

Yours truly,

A handwritten signature in cursive script that reads "Tom Cadwallader".

Tom Cadwallader
Dairy Grazing Apprenticeship