

# **Tenured Faculty Review Documentation**

**(Jan. 2009 - Dec. 2013)**

**MICHAEL C. RANKIN**

**DEPT. OF AGRICULTURE AND LIFE SCIENCES  
UNIVERSITY OF WISCONSIN - EXTENSION**

**2013**

**I. PERSONAL INFORMATION**

**Name:** Michael C. Rankin

**Formal Education:** M.S. - Iowa State University, Crop Production and Physiology, 1988  
B.S. - Iowa State University, Dairy Science, 1977

**Extension Employment:** Crops and Soils Agent - University of Wisconsin Extension and Fond du Lac County  
Professor - July, 1999 to present  
Associate Professor - July, 1994 to July, 1999  
Assistant Professor - December, 1991 to July, 1994  
Instructor - August, 1988 to December, 1991

**II. PROFESSIONAL CONTRIBUTIONS (2009-2013)**

**The University**

<u>University Service</u>	<u>Activity</u>	<u>Year(s)</u>
Agriculture and Natural Resources Extension	Team Forage (self-directed team) - co-chair	1998 - present
	Webmaster	1999 - present
Agriculture and Natural Resources Extension	Team Grains (self-directed team) - member	1999 - present
Agriculture and Natural Resources Extension	Coordinate authors for "Field Fodder" Column in <i>Wisconsin Agriculturist</i> magazine	2004 - present
Department of Agriculture and Life Sciences	East-Metro Region - Vice-chair	2005 - present
Department of Agriculture and Life Sciences	Faculty Tenure Advisory Committee	2012 - present
Agriculture and Natural Resources Extension	Wisconsin Custom Rate Guide Publication Committee	2010, 2013
University of Wisconsin Extension	Cool Choices Program Steering Committee	2013
Agriculture and Natural Resources Extension	Grain Marketing Specialist Search & Screen Committee	2010
University of Wisconsin Extension	UW-Extension Publishing Unit Steering Committee	2009

**The Profession**

<u>Organization</u>	<u>Status</u>	<u>Year(s)</u>
American Society of Agronomy	Member	1988 - present
	Certified Crop Advisor	1994 - present
Wisconsin Association of County Agricultural Agents	Member	1988 - present
	Webmaster	1997 - present
National Association of County Agricultural Agents	Member	1988 - present
Wisconsin Association of Professional Ag Consultants	Member	1998 - present
Midwest Forage Association	Member	2004 - present
	Board of Directors/Vice Pres.	2012 - present

**The Community**

<u>Organization</u>	<u>Status</u>	<u>Year(s)</u>
Fond du Lac County Forage Council	Secretary/Advisor	1988 - present
Fond du Lac County Agri-Business Council	Member	1988 - present
Fond du Lac County Farm Service Agency Emergency Management	Member	1988 - present
FSA Environmental Quality Incentive Program (EQIP) Committee	Member	2004 - present
Fond du Lac County Master Gardener Volunteers Association	Advisor	2006 - present
UW-Fond du Lac Buildings and Grounds Committee	Member	2009 - present
Dodge-Fondy Corn Producers	Co-coordinator	2010 - present
Stephenson Scholarship Selection Committee	Member	2012 - present
Lomira High School Technical Education Advisory Committee	Member	2012 - present

III. MAJOR PROGRAMS AND TEACHING EFFORTS

A. Forage Crop Production and Management (2009-2013)

1. Situation Statement:

Forage crops, primarily alfalfa and corn silage, continue to be a primary feed source for Fond du Lac County dairy farms. Alfalfa and corn silage now comprise over 100,000 county crop acres. The county has climbed to second in the state for total milk production and to top three status for corn silage production (NASS).

The past five growing seasons might be characterized by the opening phrase of the Charles Dickens' novel, *A Tale of Two Cities*---"It was the best of times, it was the worst of times...." The year 2009 was a record cool growing season, resulting in slow crop development and a plethora of fall harvest concerns. Dairy farmers also battled low milk prices. The following two years were a couple of the best and most financially rewarding for crop farmers ever; though challenging for dairies that purchased large volumes of high-priced commodities. Feed, however, was plentiful. A record high county corn silage yield of near 22 tons per acre was set in 2011 (NASS). The drought of 2012 was the worst since 1988 and by the end of the growing season forage inventories were decimated on many farms. The hope of a rebound year in 2013 was dashed in early spring when it became obvious that alfalfa winterkill was a widespread problem and the worst since the early 1990s. These past five years...all of them...were unique in some way. As such, local and state extension programming were often driven not so much by planning, but by the environmental and economic conditions that prevailed at a given point in time.

Many top producers are obtaining high yields of high quality alfalfa but this forage species has not exhibited the annual increase in yield levels that other annual agronomic crops have experienced. Yield and quality have been important alfalfa issues since Grimm brought the first bag of seed over from Germany, and they remain so today. The increase in corn silage use continues to prompt new management questions and concerns. The utilization of grazed forage in Fond du Lac County increased in the 1990s but has since leveled off and perhaps even declined.

Agronomic consultants continue to be a higher percentage of the UW-Extension audience. For better or worse, producers are putting decisions in the hands of their input supplier or paid consultant. Also, agricultural professionals and producers are looking more and more to the Internet for information on inputs and management decisions.

2. Teaching Methods Used:

a. Group Meetings and Field Days - in Fond du Lac County unless noted otherwise

<u>Event</u>	<u>Mo/Yr</u>	<u>Subject Matter Taught by Agent</u>
1. Agronomy Update Meeting	annually	A review of the previous year's growing season
2. Fond du Lac Co. Dairy Forage Day	12/13	Wisconsin Alfalfa Yield and Persistence Project (2007-2013)
3. Dodge-Fond du Lac Co. Forage Council Twilight Meeting	6/13	Forage Options from June through First Frost
4. Area Feed Shortage Meetings - <i>Kiel and Hollandtown</i>	5/13	Forage Options from June through First Frost
5. Wisconsin Bison Assn. State Meeting - <i>Neenah</i>	2/13	Pasture and Hay Management Following a Drought
6. Midwest Forage Assn. Symposium - <i>Wisconsin Dells</i>	1/13	Costs and Benefits of Establishing Alfalfa with Glyphosate
7. Midwest Forage Assn. Symposium - <i>Wisconsin Dells</i>	1/13	Growing Winter Rye as a Dairy Forage
8. Wisconsin Crop Management Conference - <i>Madison</i>	1/13	The State of the Alfalfa Address
9. Fond du Lac Co. Dairy Forage Day	12/12	The State of the Alfalfa Address
10. American Society of Agronomy Annual Meeting - <i>Cincinnati, OH</i>	10/12	Wisconsin Alfalfa Yield and Persistence Project (2007-2011)
11. Manitowoc Co. Forage Council Summer Twilight Meeting - <i>Newton</i>	6/12	In Search of Higher Alfalfa Yields
12. Shawano County Forage Council Meeting - <i>Gresham</i>	2/12	Wisconsin Alfalfa Yield and Persistence Project (2007-2011)

<u>Event</u>	<u>Mo/Yr</u>	<u>Subject Matter Taught by Agent</u>
13. Midwest Forage Assn. Symposium - <i>Wisconsin Dells</i>	1/12	Wisconsin Alfalfa Yield and Persistence Project (2007-2011)
14. Fond du Lac Co. Dairy Forage Day	12/11	Winter Rye as a Cover Crop and Forage Resource
15. Ontario Forage Focus Conferences - <i>Napanee and Shakespeare, ON</i>	11/11	In Search of Higher Alfalfa Yields and Forage Quality
16. Agronomy and Soils Field Day - <i>Arlington</i>	8/11	In Search of Higher Alfalfa Yields
17. Fond du Lac Co. Agronomy Field Day	8/11	A Seller's Perspective of Corn Silage Value in 2011
18. Bank of Oakfield Client Meeting	3/11	Crop Considerations for 2011
19. Midwest Forage Assn. Symposium - <i>Wisconsin Dells</i>	1/11	Wisconsin Alfalfa Yield and Persistence Project (2007-2010)
20. Wisconsin Crop Management Conference - <i>Madison</i>	1/11	Alfalfa Yield, Quality, and Persistence During the Bush and Obama Administrations
21. Fond du Lac Co. Dairy Forage Day	12/10	Alfalfa Yield, Quality, and Persistence During the Bush and Obama Administrations
22. Midwest Forage Assn. Risk-Reduction Research Summit	11/10	Wisconsin Alfalfa Yield and Persistence Project (2007-2010)
23. Industry-Extension Forage Advisory Council - <i>LaCrosse</i>	11/10	Wisconsin Alfalfa Yield and Persistence Project (2007-2010)
24. Kewaunee Co. Dairy Forage Meeting - <i>Luxemburg</i>	4/10	Alfalfa: Where's the Yield?
25. WI Custom Operators' Assn. Annual Meeting - <i>Wisconsin Dells</i>	1/10	Marketing Your Business Based on Feed Quality Delivered
26. Midwest Forage Assn. Symposium - <i>Wisconsin Dells</i>	1/10	Wisconsin Alfalfa Yield and Persistence Project (2007-2009)
27. Fond du Lac Co. Dairy Forage Day	12/09	Pricing Corn Silage
28. Forage Teaching and Technology Conference - <i>Marshfield</i>	9/09	Wisconsin Alfalfa Yield and Persistence Project (2007-2008)
29. Pizza at the Ranch Dairy Series	4/09	Agronomic Considerations for Spring Planting
30. 14 <sup>th</sup> Annual Graziers' Gathering	3/09	Some Random Thoughts on Pasture Weed Management

**b. Individual Consultations**

- Farm calls / Telephone calls / Email / Text messages / Office visits

**c. Newsletters (print)**

- *Bales and Bushels* - crops and soils newsletter mailed bi-monthly to 1000 county farmers and agricultural professionals.
- *Forage Focus* - annual contribution(s) to the Midwest Forage Association's newsletter/magazine

**d. Print Media**

- *Croplines* - a weekly agronomic column published in *The Reporter* (Fond du Lac daily newspaper)
- *Farm Views and News* - a column authored every six weeks in *The Reporter*
- State and National Media - as requested

**e. Radio Programming**

- *KFIZ*, Fond du Lac - two 6-minute programs per week
- *WRPN*, Ripon - one "live" 5-minute program per week (terminated, spring-2013)
- *WFDL*, Fond du Lac - one "live" 10-minute program per month

**f. Voice Recordings**

- *Forageline* is maintained on the county's telephone system to make alfalfa scissors cut data and corn silage dry down results available.

**g. Digital/Internet Applications**

- **Fond du Lac Co. Agronomy Web Page** - <http://fyi.uwex.edu/fdlcrops>  
Used to make information available electronically to east central Wisconsin crop producers and ag professionals. Includes newsletter articles, 1st cut alfalfa forage quality information, PEAQ charts, links to pertinent crop resources, and educational papers written by this agent. This site was migrated to WordPress in December, 2013.

- **Team Forage Web Site** - <http://fyi.uwex.edu/forage>  
A source for all UW-Extension forage information generated by specialists and agents. This site was migrated to WordPress in February, 2014.
- **Around the Corn Blog** - <http://fyi.uwex.edu/aroundthecorn>  
Not all forage related, but some thought-provoking and sometimes humorous ramblings.
- **Twitter** - [http://twitter.com/M\\_Rankin](http://twitter.com/M_Rankin)
- Used to promote programs and resources....among other things.
- **Microsoft Excel** - used extensively to analyze research data, monitor weather data, develop decision making aids, and generate graphs for presentations and papers.  
Examples of spreadsheets developed:
  - *Hay Pricing StructureV2* - used by several dairies to value purchased haylage.
  - *Fond du Lac Co. UWEX On-farm Research Calculator* - used to calculate and summarize results from on-farm research projects.
  - *Corn Silage Moisture Adjustment Calculator* - adjusts silage price based on harvested moisture.

**h. Papers and Publications**

- Wisconsin Alfalfa Yield and Persistence Program - Summary Report. Annually, 2009-2013 (**Exhibit 1**)
- Seven Unique Factors of First-cut Alfalfa, Midwest Forage Assn. *Forage Focus*, May, 2013
- Checking-in With Alfalfa, Midwest Forage Assn. *Clippings* e-newsletter, Mar, 2013
- The State of the Alfalfa Address. *Proceedings: Wisconsin Crop Management Conf.*, Jan, 2013
- Steps You Can Take Post-Drought: Alfalfa. PDPW, *Dairy's Bottom Line*, Jan, 2013
- Wisconsin Alfalfa Yield and Persistence Project. American Society of Agronomy, Abstract, Oct, 2012
- In Search of Higher Alfalfa Yields. Midwest Forage Assn. *Clippings* e-newsletter, Apr, 2012
- Ramblings on Alfalfa Quality from an Old Scissors-cutter. *Proceedings: Ontario Forage Focus Conference*, Nov, 2012
- In Search of Higher Alfalfa Yields. *Proceedings: Ontario Forage Focus Conference*, Nov, 2012
- Wisconsin Alfalfa Yield and Persistence Project-2010. Midwest Forage Assn., *Forage Focus*, May, 2011
- On-farm alfalfa yield trials showing promise. *Hoard's Dairyman* magazine, May, 2011
- Alfalfa Seeding Rates: how much is too much? Midwest Forage Assn. *Clippings* e-newsletter, Apr, 2011
- Frost Seeding Forages into Established Pastures. Midwest Forage Assn., *Forage Focus*, Mar, 2011
- It's Round 2 for Roundup Ready Alfalfa. *Hoard's Dairyman* magazine, Mar, 2011
- Wisconsin Alfalfa Yield and Persistence Project-2010. *Proceedings: MFA Risk-Reduction Research Summit*, Nov, 2010
- Marketing your business based on feed quality delivered. *Progressive Forage Grower*, Sep, 2010
- Ramblings from an Old Alfalfa Scissors-cutter. Midwest Forage Assn., *Clippings* e-newsletter, Jun, 2010
- Wisconsin Alfalfa Yield and Persistence Project-2009. Midwest Forage Assn., *Forage Focus*, May, 2010
- Alfalfa Focus, monthly alfalfa production column (5). Farm Progress Publications, Aug-Dec, 2009
- Determining the Value of Standing Hay. Midwest Forage Assn., *Clippings* e-newsletter, May, 2009
- Planting Spring Cereals for Forage, Midwest Forage Assn. *Forage Focus*, Mar, 2009

**i. Forage Research Projects and Demonstrations**

- Alfalfa Scissors Cutting Project. (2009 - 2013)
- Corn Silage Dry Down Project. (2009 - 2013)
- Wisconsin Alfalfa Yield and Persistence Project. Project manager cooperating with other participating county agricultural agents. (2009-2013)
- Alfalfa Fungicide Trial. (2012-2013)
- Weed Control Timing in Roundup Ready Alfalfa (Mark Renz-PI). Data collection and coordination.
- Alfalfa Sulfur Sufficiency Project (Carrie Laboski-PI). Sample collection. (2010-2011)

**3. Major Effort:**

**a. Wisconsin Alfalfa Yield and Persistence Program:**

The seventh consecutive year for this project was completed in 2013. Its purpose remains to measure field-level alfalfa yields and persistence. Beginning at the first production year, harvested forage is weighed and sampled for each cutting until the stand is terminated. This is being done across multiple fields and counties with county agents acting as local project coordinators. At the end of each growing season, I have developed a project summary paper (**Exhibit 1**) and MS PowerPoint presentation summarizing the results. Funding for the project has recently been obtained through the Midwest Forage Association's research grant program and this project has consistently ranked 1<sup>st</sup> or 2<sup>nd</sup> among projects being considered. The data generated to date has been used extensively by academia and agribusiness. Dr. Michael Russelle, USDA-ARS University of Minnesota, has pointed to the data being generated by the project as the "best in the nation" for assessing actual on-farm alfalfa production. In addition to multiple presentations at county and state meetings in Wisconsin, I presented project data at the 2012 American Society of Agronomy Annual Meeting in Cincinnati, OH. Our intent is to continue the program indefinitely.

*"Great summary.....This is really some useful data for the industry...nice job to extension!"*

**Jim Barmore, GPS Dairy Consulting, Wisconsin (01/13)**

**b. UW-Extension Team Forage Web Site**

The Team Forage web site has grown into a project with national significance and use. The site includes hundreds of Wisconsin forage resources and nearly 100 exclusive "Focus on Forage" fact sheets. In 2013, the site logged over a half-million pageviews, more than doubling in use since 2008. Although my initial plan for the site was somewhat selfish (I often struggled looking for resources that were scattered across departments and individuals), it has grown to something far larger than I ever envisioned. Many specialists relay the fact that the site and its resources are often cited at national meetings and in national publications. The web site has also provided a mechanism for county agents to publish in a forum that has national exposure. Note: the site was redesigned and migrated to a WordPress format in February, 2014.

*"I use the Team Forage web site OFTEN! I use a lot of the work yourself, Brian, Richard and others have put together!! The work you all continue to do makes our challenge of providing high(er) quality silage to the dairy industry easier!"*

**Chuck Grimes, Ph.D. PAS, Dairy Nutrition/Forage Management, Kansas (08/11)**

**B. Grain Crop Production and Management (2009-2013)**

**1. Situation Statement:**

The previously described annual variation in growing season weather had an equal impact on grain crop production. In 2010 Fond du Lac County corn farmers averaged 171 bushels per acre, obliterating the previous record by 17 bushels (NASS). The next year a new record of 177 bushels per acre was set and that mark was second highest among all Wisconsin counties. In the 2012 drought year, county average corn yield dropped to 120 bushels per acre, which was the largest year to year reduction since records have been reported. All of this followed a 2009 year when a record-setting cool growing season caused a plethora of maturity concerns.

Record high grain prices and returns marked much of the past five years. Though most input prices increased, there was still plenty of money to spend. Often new input expenditures provided questionable returns. New products came faster than they could be evaluated; this was a great source of frustration.

**2. Teaching Methods Used:**

**a. Group Meetings and Field Days - in Fond du Lac County unless noted otherwise**

<u>Event</u>	<u>When</u>	<u>Subject Matter Taught by Agent</u>
1. Agronomy Update Meeting	1/09-13	A Review of the Previous Growing Season
2. Ballweg Imp. John Deere Days	12/13	Talking trash: the value of crop residue
3. WI Area Corn Conference	01/13	Talking trash: the value of crop residue
4. Ballweg Imp. John Deere Days	12/12	So long 2012...Hello 2013: Crop Decisions Following a Drought
5. Noon Optimists Club	10/12	A Look Back at the 2012 Drought
6. NE Wisconsin Ag Lenders' Meeting	05/12	The New World of Crop Land Rental Leases
7. Dodge-Fondy Corn Growers Lunch Meeting	02/12	Corn Seed Treatments and Traits
8. Dodge Co. Forage Council Meeting	02/12	The Fertilizer Value of Crop Residue
9. Ballweg Imp. John Deere Days	12/11	Renting Crop Land: considerations and alternatives to a cash lease
10. Morning Kiwanis	03/11	Biotechnology in Agriculture
11. Crop Considerations for 2011	03/11	Bank of Oakfield Client Meeting
12. Processed Vegetable Growers Clinic	02/11	Troubling Nutrient Management Trends
13. Nutrient Management Farmer Education Training	02/11	Nutrient Management: N,P, and K
14. Ballweg Imp. John Deere Days	12/10	The Problem with Starter Fertilizer
15. WI Area Soybean Conference	12/10	Historical Soybean Production Trends in Wisconsin
16. Fond du Lac Co. Agronomy Field Day	08/10	Nutrient Value of Wheat Straw and Corn Stalks
17. WI Area Corn Conference	01/10	The Problem with Starter Fertilizer

<u>Event</u>	<u>When</u>	<u>Subject Matter Taught by Agent</u>
18. Church Women United	09/09	Protecting the Environment: a mostly agricultural perspective
19. Fond du Lac Co. Agronomy Field Day	08/09	Hoping Jack Gets Delayed at the Airport
20. FSA Program Decisions Meeting	07/09	Making the ACRE Program Decision
21. Pizza at the Ranch Meeting Series	04/09	Agronomic Considerations for Spring Planting
22. Bank of Oakfield Client Meeting	03/09	The Yield vs. Profit Dilemma
23. Processed Vegetable Growers Clinic	02/09	Starter Fertilizer: Fact vs. Fiction
24. Nutrient Management Farmer Education Program	01/09	Nutrient Management: N, P, and K

b. Individual Consultations

- Farm calls / Telephone calls / Office visits

c. Newsletters

- *Bales and Bushels* - crop oriented newsletter mailed bi-monthly to 1000 county farmers and ag professionals.

d. Print Media

- *CropLines* - a weekly agronomic column published in *The Reporter* (Fond du Lac daily newspaper)
- *Farm Views and News* - a column authored every six weeks in *The Reporter*
- *Field Fodder* - a column authored once per year in the *Wisconsin Agriculturist*
- State and National Media - as requested

e. Radio Programming

- *KFIZ*, Fond du Lac - two 6-minute programs per week
- *WRPN*, Ripon - one "live" 5-minute program per week (terminated, spring-2013)
- *WFDL*, Fond du Lac - one "live" 10-minute program per month

f. Computer Applications

- **Fond du Lac Co. Agronomy Web Page** - <http://fyi.uwex.edu/fdlcrops>  
Used to make information available electronically to east central Wisconsin crop producers and ag professionals. This site was migrated to WordPress in December, 2013.
- **Around the Corn Blog** - <http://fyi.uwex.edu/aroundthecorn>  
Not all grain crop related, but some thought-provoking and sometimes humorous ramblings.
- **Twitter** - [http://twitter.com/M\\_Rankin](http://twitter.com/M_Rankin)  
Used to promote programs and resources....among other things.
- **Microsoft Excel** - used extensively to analyze research data, monitor weather data, develop decision making aids, and generate graphs for presentations and papers.
  - *Crop Residue Value Calculator* - developed in 2012 to help determine the fertilizer nutrient value of crop residue when it is harvested for feed or bedding. (**Exhibit 2**)
  - *Nitrogen \$ Rate of Return Calculator* - used to determine the maximum return to nitrogen (MRTN) rate for growing corn. Updated in 2012 to approximate new UW nitrogen recommendations.
  - *Flex Land Rent Calculator* - used to determine land rent as a percent of gross crop revenue. Developed in 2011.
  - *Biosolids Nutrient Calculator for Idiots* - converts standard biosolid nutrient analysis to fertilizer values. Developed in 2010.

g. Papers and Publications

- Talking Trash: the value of crop residue. *Wisconsin Agriculturist*, Nov, 2013
- A Big Year for Smut in Wisconsin Fields. *Wisconsin Agriculturist*. Nov, 2012
- Current Transgenic Traits Marketed for Corn Hybrids. Fact Sheet. Feb, 2012
- 'P' is for Progress and Phosphorus. *Wisconsin Agriculturist*, Nov, 2010
- White Mold in Soybean Takes its Toll in 2009. *Wisconsin Agriculturist*, Nov, 2009
- Understanding Corn Test Weight. Team Grains Fact Sheet, Oct, 2009 (**Exhibit 3**)
- High Moisture Corn Harvest and Storage Considerations, Team Grains Fact Sheet, Oct, 2009

h. Grain Crops Research Projects and Demonstrations

- University of Wisconsin Corn Hybrid Performance Trials. Cooperated with J. Lauer. (2009 - 2013)
- University of Wisconsin Soybean Variety Performance Trials. Cooperated with S. Conley. (2009 - 2013)
- Thrips and Soybean Vein Necrosis in Wisconsin. Data collection. Cooperated with D. Smith. (2013)
- Soybean Micronutrient Study. Sample collection. Cooperated with C. Laboski. (2011-2012)
- Micronutrients for Corn. Cooperated with C. Laboski. (2011)
- Bunker Silo Density of Stored HM Corn. Sample collection. Cooperated with B. Holmes. (2010)

**3. Major Effort:**

**a. Dodge-Fondy Corn Growers**

In 2010 the Wisconsin Corn Growers Assn. approached UW Extension in Dodge and Fond du Lac Counties and asked if we'd be willing to coordinate the formation of a local corn growers' group. With promised support from the state association, the Dodge-Fondy Corn Growers was formed and has offered a tremendous educational opportunity for UW-Extension and an opportunity to reach and interact with some farmers who previously did have a lot of contact with extension. Currently, the group holds an annual winter educational meeting, sponsors an annual yield contest, meets monthly from January through March for a lunch and speaker event, and holds a summer twilight meeting. All of these programs are coordinated by UW-Extension and participation in these events has grown with each passing year. On a personal note, it has given me an opportunity to know and interact with a number of progressive corn growers in Dodge County. Over much of the past few years, the Dodge County crops and soils agent position has been vacant or filled on an interim basis.

**b. Crop Residue Nutrient Composition**

One of the questions I've often received through the years relates to the value of crop residues (corn stalks, wheat straw, and soybean straw) from a nutrient removal perspective. I've always been frustrated with the wide range of values and recommendations that can be found in extension bulletins and industry reports. Previously, I had taken some data from a dairy straw feeding study and converted the forage analysis into fertilizer equivalents to formulate some actual removal values for Wisconsin straw. Taking this same approach with corn stalks, I sampled harvested corn stalks from several fields and farms in fall 2010 and had them analyzed using wet chemistry. I then converted the analysis to fertilizer equivalents and value. Further, I requested from several analysis labs any soybean straw samples they had received and made the same conversions. Using all of this data as a backbone, I developed a spreadsheet calculator that will quickly determine nutrient value (with and without nitrogen considered) of harvested residue based on current fertilizer prices. This is posted on my web site and has been shared with other county extension faculty. Further, a presentation was developed and has been given to several different groups in the past couple of years. The presentation addresses not just nutrient value removal, but also considerations related to carbon removal and soil quality.

**IV. MINOR PROGRAMS**

**A. Farm Safety**

The 24-hour Wisconsin Tractor and Machinery Safety Certification Program is coordinated and taught annually for area youth. Class sizes have ranged from 13 to 25 participants during the past five years. This program is greatly appreciated by the parents and I enjoy the interaction with the youth. Every attempt is made to offer a fun and educational experience while hopefully preventing a few injuries or worse along the way.

I have also coordinated and taught a skid steer safety program for employees of three large dairies in the county. A total of about 75 employees have participated in the three separate training sessions. Half of the employees were Hispanic. These trainings included some classroom instruction, video, hands-on demonstrations, and a driving skills evaluation.

**B. Commercial Vegetable Crop Production**

Fond du Lac County is a leading producer of commercial sweet corn, snap beans, and peas in Wisconsin. I maintain a good working relationship with vegetable company field personnel. Together with Dodge County UW-Extension and local processor companies, a Processed Vegetable Growers Clinic is offered and evaluated annually. An advisory group of processor field staff and growers help plan the clinic, which is attended by 60 to 75 farmers and company personnel each year.

**C. Horticulture**

My current horticulture program (primarily reactive) includes acting as adviser for the county Master Gardener Volunteer Association, providing training for the plant health advisors who help with phone calls during the summer months, offering Level 1 Master Gardener training each fall, and keeping Master Gardener volunteers informed of Level 2 training opportunities.

**D. Clean Sweep**

Each year Fond du Lac County UW-Extension collaborates with neighboring counties to obtain a Hazardous Waste Clean Sweep grant from WDATCP. I work with our CNRD educator to plan and execute a clean sweep program each spring.



V. PROGRAM EVALUATION

**Exhibit 4** – unsolicited feedback on several programs and/or materials.

**Exhibit 5** – teaching evaluation from “Meeting Tomorrow’s Feeding Challenges Today,” May 29, 2013

VI. PROFESSIONAL DEVELOPMENT

A. **Completed** (in Wisconsin unless noted otherwise)

<u>Event</u>	<u>Sponsor</u>	<u>When Attended</u>	<u>Days</u>
Wisconsin Crop Management Conference	UW-Extension, WI Crop Mgt Assn.	Annual-Jan	2
WI Pest Management Update Meeting	UW-Extension	Annual-Nov	1
WI Soil, Water, Nutrient Management Meeting	UW-Extension	Annual-Dec	1
WI Agronomy Update Meeting	UW-Extension	Annual-Jan	1
Midwest Forage Assn. Annual Meeting and Conf.	Midwest Forage Association	Annual- Jan	2
Arlington Agronomy Field Day	UW-Extension, CALS	Annual-Aug	1
Farm Management Clinic	UW-Extension, Farm Mgt. Team	Nov, 2013	0.5
7 <sup>th</sup> Forage Teaching and Technology Conference	UW-Extension Team Forage	Sep, 2013	1
WI Area Corn Conference	UW-Extension	Jan, 2013	1
WI Area Soybean Conference	UW-Extension	Dec, 2012	1
MFA Research and Risk Management Summit – <i>Rochester, MN</i>	Midwest Forage Association	Nov, 2012	2
Technology Conference	UW-Extension	Nov, 2012	1
American Society of Agronomy Annual Meeting – <i>Cincinnati, OH</i>	American Society of Agronomy	Oct, 2012	4
Arlington IPM Field Day	UW-Extension, CALS	Jul, 2012	1
NE WI Ag Lenders Meeting	UW-Extension	May, 2012	1
CareerTrak Grammar and Proofreading Training	Fred Pryor Seminars	Feb, 2012	1
6 <sup>th</sup> Forage Teaching and Technology Conference	UW-Extension Team Forage	Sep, 2011	2
WI Area Soybean Conference	UW-Extension	Dec, 2010	1
MFA Research and Risk Management Summit – <i>St. Cloud, MN</i>	Midwest Forage Association	Nov, 2010	2
Grains Professional Development Tour	UW-Extension Team Grains	Jun, 2010	1
Eastern District Chr Hansen Tour	UW-Extension, Eastern District	Apr, 2010	0.5
WI Area Corn Conference	UW-Extension	Jan, 2010	1
American Society of Agronomy Annual Meeting – <i>Pittsburgh, PA</i>	American Society of Agronomy	Nov, 2009	4
Wisconsin Working Lands Update Training	UW-Extension, Eastern District	Sep, 2009	1
5 <sup>th</sup> Forage Teaching and Technology Conference	UW-Extension Team Forage	Sep, 2009	2
Manure Spill Demonstration Program	UW-Extension	Aug, 2009	1
ANRE Team Leadership Summit	UW-Extension ANRE	Jun, 2009	2
Winter Wheat Workshop	UW-Extension	Mar, 2009	1

**FUTURE PROFESSIONAL DEVELOPMENT**

Future professional development plans will mirror that of the past five years and be altered only by the availability of professional improvement funds. I have always felt it is important to stay current with agronomic issues and management practices as we increasingly work with consultants and other agribusiness personnel. That may be truer today than ever before. When possible, I try to attend national meetings that are in my financial reach (generally held in the Midwest). I mostly just fake my expertise as a horticulturist.

Foundation professional improvement programs:

<u>Event</u>	<u>Days per Year</u>
Wisconsin Crop Management Conference	2
WI Pest Management Update Meeting	1
WI Soil, Water, Nutrient Management Meeting	1
WI Agronomy Update Meeting	1
Midwest Forage Assn. Annual Symposium	2
Arlington Agronomy/Pest Management Field Days	2
Area Soybean and Corn Conferences	1
Team Grains Summer Professional Improvement Program	1
Forage Teaching and Technology Conferences (every 2 years)	2
American Society of Agronomy Annual Meeting (if in Midwest)	4

## UNSOLICITED E-MAIL FEEDBACK OF AGENT'S PROGRAMS AND MATERIALS

### 1. Nitrogen \$ Rate of Return Calculator

- *"I have attached here the Manitoba version of the Nitrogen Rate Calculator. You will note our acknowledgement of your model which we followed in our construction. Our modification involves different crops, soil N levels and different moisture (or productivity) zones in the province. Thanks for allowing the generous use of your template.*  
----**John Heard, Crop Nutrition Specialist, Manitoba Agriculture, Food and Rural Initiatives (5/09)**
- *"I had contacted you a few years ago to let you know that I was following the principle and pretty much the same format you introduced in your N calculator. Well, I thought I'd let you know that your name is being constantly mentioned in the communications on a calculator that I developed specifically for the province of Manitoba. Thanks again for allowing me to use this concept in the first place."*  
----**Rigas E. Karamanos, Ph.D., P.Ag., Agronomy Manager, Viterra Inc. (06/09)**
- *"I am working on a precision ag marginal profitability calculator. Some of the information you utilize in your nitrogen rate of return calculator may be useful in my final product. Do you have a beta version of your calculator that I might be able to incorporate in a larger calculator to demonstrate marginality. The calculator will become an online tool and we would possibly would like to link to your site for anyone that would care to download your fertility return portion. Thanks for your consideration in this matter."*  
----**Dennis Sevigny, Dakota Center for Technology Optimized Agriculture**

### 2. Reaction to newspaper column

- *"Just a note -- long overdue, by the way -- to let you know how much I enjoy your column in The Reporter. I have no agricultural background, but your writing style, flair and sense of humor have made me a loyal reader. The column never fails to be insightful, as was the feature about you in our last Success section. The best compliment that I can give you is to say that I learn something each time your column is published. Keep up the great work.*  
----**Gary Clausius, News Copy Editor, The Reporter (02/10)**
- *"Hi Mike. Do you aspire to be the Bob Uecker of farm columnists? If so you should write more ones like "Travel brings trials, tribulations." Enjoyed it, thanks."*  
----**Gary McCaughtry, Fond du Lac Co. resident (12/11)**
- *"I just wanted to say how much I appreciated the column in Sunday's Fond du Lac Reporter about hay bales. Growing up on a farm south of Ripon, I stacked a lot of hay and threw a lot of it down the chute. There is a lot to be learned while doing work like that on a farm."*  
----**Jim Scott, Production Dept., WIXX-FM (03/12)**
- *"Just want to tell you how much I enjoy your column! I read them almost all the time even though a lot don't apply to my business. Never hurts to learn. The article on Sunday was great! In the same realm as something a fellow farm marketer told me - a remark from one of their customers. The customer didn't understand why they had to pay for their apples because after all Mother Nature grows the tree and they had done all the picking."*  
----**Linda Struye, Owner of the Little Farmer apple orchard (01/13)**
- *"Each day we get a tally of daily views on our website. Just wanted you to know that your Sunday column broke into the Top 50 of most viewed items on our website. Not sure a farm column has ever done that since people have to specifically look for it. Great job. Your column is always a good read and I have many, many good comments about your writing."*  
----**Colleen Kottke, The Reporter (08/13)**

### 3. Tractor and Machinery Safety Certification Program

- *"After reading this month's Bales and Bushels, I had to write to you about the tractor safety program. Many years ago, my two sons, Andy and Jon, went through the program. We never*

## EXHIBIT 4

*realized how important the training was until several years later. In October of 1999, Andy was a sophomore at MSOE in Milwaukee. He would always come home on weekends to help on the farm, and one particular weekend every farmer's nightmare occurred. Andy was heading out to a field to bring home a full gravity box of corn. He was using our Massie with a cab. He was stopped on Highway 67 waiting for the paper delivery man to finish putting the paper in our neighbor's box, so he could turn left into our field driveway. While he was waiting, one of his former high school classmate came speeding over the hill. He never noticed the other car and tried to buzz quickly past him. The end result was 2 vehicles in the same lane, and he struck the tractor in the left front tire. The impact ripped the tractor in half. The motor was sideways on the road about 10 feet from the cab and rear tires. Luckily both boys were able to walk away.*

*The reason for my note is a thanks for the training that Andy had. The county officer who responded was the same one who had spoken at the Tractor Safety meetings. Andy had followed all the rules----flashers were going, turn signal was on, tires were facing straight ahead---plus the officer had remembered him from the meetings. Needless to say, the other family's insurance company was very cooperative and covered our damages. But, between the knowledge he had learned from his father, and the specifics given in the tractor safety course, we had a very good outcome from a frightening experience. Please keep up the good work."*

*----Joanne Theisen, Fond du Lac Co. farm wife (02/14)*

### 4. Processed Vegetable Growers' Clinic Presentation

- *"I just want to let you know I really enjoyed your presentation yesterday on Wisconsin Vegetable Production Trends. Having spent my entire life and career in the Wisconsin vegetable industry, I have seen many processing companies, factories and production areas come and go, so it was great to look at the numbers, reminisce about the old days, and see where the industry is headed. Thanks again, and have a good season!  
----Bill Veith, Seneca Foods, Janesville (02/10)*

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**Meeting Tomorrow's Feeding Challenges Today, May 29th, 2013**  
**Millhome Supper Club, Kiel**

*Thank you for attending. Your feedback and input are important!*

*Your county extension office*



n=21

Topic/Speaker	Level of knowledge " <u>before</u> " attending this program					Level of knowledge " <u>after</u> " attending this program					WHAT MANAGEMENT PRACTICES DO YOU EXPECT TO ADD OR CHANGE AS A RESULT OF WHAT YOU LEARNED TODAY?
	Excellent	Above AVG	Average	Below AVG	Poor	Excellent	Above AVG	Average	Below AVG	Poor	
<b>Strategies with Less Alfalfa-Building Economic and Healthy Rations</b> <i>Mike Hutjens, University of Illinois</i>	3	7	8	3		7	11	3			<ul style="list-style-type: none"> <li>Increasing corn silage in ration-sudan grasses-higher digestibility (NFC)</li> <li>Proper corn silage processing</li> <li>Is a great speaker and always has great material that is factual and current</li> <li>Let customers know there are options</li> <li>Higher corn silage diets</li> </ul>
<b>In and Out of the Box Fiber Options for Dairy Rations</b> <i>Jennifer Wackershauser &amp; Ron Hofstad, LaBudde Group, Inc.</i>		4	13	3	1		8	11	1	1	<ul style="list-style-type: none"> <li>Having Labudde present their sales pitch was the wrong direction to go. What it stated was that the UWEX promotes LaBudde it products and people when the UWEX needs to stay neutral. I thought it was terrible to allow them to present and it was a poor presentation. Presented good material. I would of cut the labudde presentation and gave more time to Mike Hutjens</li> <li>Let customers know they are out there</li> <li>More by-products</li> </ul>
<b>Forage Options June Through First Frost</b> <i>Mike Rankin, UWEX Fond du Lac Co.</i>	2	5	13	1		6	12	3			<ul style="list-style-type: none"> <li>Let customers know there are options</li> <li>New forage sources with use of grasses</li> </ul>

What is your occupation? (Circle all that apply):

DVM

Feed Consultant -10

Agronomist -4

Educator-3

Government Agency-1

Dairy Farmers-3

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