Hello Winnebago County Farmers,

In the time honored tradition of June Dairy Month breakfasts, the Winnebago County Dairy Promotion Committee and the Winnebago County Farm Bureau have brought the Winnebago County Dairy Breakfast back to the farm on June 8. Al and Cathy Silverthorn, their son Josh and their nephew Christopher Shea are excited to host. Silverthorns’ Farm is a dairy farm that is home to 150 milking cows, with 300 total animals including calves and heifers. The goal of the Breakfast Committee is to help urban people understand that agriculture is still about Neighbors Feeding Neighbors. We hope to attract around 2000 people. Proceeds support Ag in the Classroom activities in Winnebago County.

This means we need your help.
If you would like to volunteer before, during or after the breakfast, contact Amy Zentner: 920-426-1056.

If you would like to donate funds or supplies, contact Dan Hinz: 920-379-0371.

If you would like to enjoy a delicious breakfast at an affordable family price served on a modern farm with beautiful cows, bring everyone you know.

See you at the breakfast if not before,

Nick Schneider, Your County Agricultural Agent
# CALENDAR OF EVENTS

## May

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>9:45 am - 2:30 pm</td>
<td>Farm Management Update, Kimberly</td>
<td>Kimberly</td>
</tr>
<tr>
<td>4</td>
<td>9:00 am - Noon</td>
<td>Swine, Sheep, and Goat Weigh-In, Fairgrounds</td>
<td>Fairgrounds</td>
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<tr>
<td>7</td>
<td>9:00 am - Noon</td>
<td>Soil Health Field Day, Marshfield</td>
<td>Marshfield</td>
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<tr>
<td>16</td>
<td>7:00 - 9:00 pm</td>
<td>Youth Meat Animal Quality Assurance, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
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<tr>
<td>17</td>
<td>Noon - 1:30 pm</td>
<td>Dairy Breakfast Planning Meeting, Farm Bureau Office</td>
<td>Farm Bureau Office</td>
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<tr>
<td>20</td>
<td></td>
<td>USDA CRP Signup Begins</td>
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<tr>
<td>22</td>
<td>7:00 - 9:00 pm</td>
<td>Youth Meat Animal Quality Assurance, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
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<tr>
<td>28</td>
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<td>Youth Meat Animal Quality Assurance, JPCC Oshkosh</td>
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## June

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<tr>
<th>Date</th>
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<tr>
<td>3</td>
<td>Noon - 1:00 pm</td>
<td>Food Preservation Freezing Produce, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
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<tr>
<td>3</td>
<td>6:30 - 8:30 pm</td>
<td>Food Preservation Rally, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
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<tr>
<td>8</td>
<td>8:00 am - 12:30 pm</td>
<td>Dairy Breakfast on the Farm, Omro</td>
<td>Omro</td>
</tr>
<tr>
<td>10</td>
<td>6:00 pm</td>
<td>Preserving Fruits, Neenah Library</td>
<td>Neenah Library</td>
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<tr>
<td>14</td>
<td></td>
<td>USDA CRP Signup Ends</td>
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<tr>
<td>17</td>
<td>Noon - 1:00 pm</td>
<td>Food Preservation Jams and Jellies, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
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<tr>
<td>25</td>
<td>5:00 - 9:00 pm</td>
<td>Beef Cow/Calf Twilight Meeting, Berlin</td>
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## July

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Noon - 1:00 pm</td>
<td>Food Preservation Canning Vegetables, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
</tr>
<tr>
<td>9-11</td>
<td>9:00 am - 5:00 pm</td>
<td>Farm Technology Days, Dallas, WI</td>
<td>Dallas, WI</td>
</tr>
<tr>
<td>15</td>
<td>Noon - 1:00 pm</td>
<td>Food Preservation Canning Tomatoes, JPCC Oshkosh</td>
<td>JPCC Oshkosh</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Farm Bureau Scholarship Due</td>
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</table>
Winnebago County Dairy Breakfast on the Farm

Saturday, June 8, 2013
8 a.m. to 12:30 p.m.

Brought to you by the Winnebago County Farm Bureau and Winnebago County Dairy Promotion Committee.

Hosted by Silver-Shea Holsteins
- Al, Cathy and Josh Silverthorn and Christopher Shea -
Neighbors Feeding Neighbors

Cost:
$6 - Adults
$3 - Children ages 4-11
Free - Children 3 and under

Home of cows that bring you local Union Star Cheese.

4843 Ginnow Road, Omro
MEAT ANIMAL QUALITY ASSURANCE
When: May 16, 22, and 28, 2013
Time: 7:00 to 9:00 p.m.
Where: J.P. Coughlin Center, 625 E. CTY Y, Oshkosh
Cost: Free

Winnebago County Youth Meat Animal Quality Assurance (MAQA) classes are May 16, 22 and 28. All meat animal project participants that plan to sell at the Fair must attend one educational event about caring for livestock or the participant is subject to the 3% financial penalty. The class theme for 2013 is Animal Feeding. Please note the last issue had May 21 incorrectly printed in the calendar and was wrong in the beef weigh-in flyer.

You need to contact the UW-Extension office to register for which class you plan to attend. Call 920-232-1970 or email nick.schneider@ces.uwex.edu.

Contact Nick Schneider, Agricultural Agent with questions about MAQA.

Swine, sheep and goat weigh-ins are May 4, 9:00 to Noon at the expo center.
BEEF COW/CALF TWILIGHT MEETING

When: June 25, 2013
Time: 5:00 to 9:00 p.m.
Where: Paula and Terry Treu’s Simmentals
4247 37th Ave, Berlin WI 54923
Cost: $5, please register by June 21

4:00 Registration Opens
4:30 Farm Tour and Meal

6:00 - 9:00 Educational Meeting
Topics:
Genomics and Selection: What it means and how to use it?
by Aerica Bjurstrom, Kewaunee County Agriculture Agent

Vaccinations to Improve Reproductive Health: Timing your vaccination program to maximize reproductive immunity.
by Dr. Sandy Stuttgen, Taylor County Agriculture Agent

Estrous Cycle and Synchronization.
by Katie Pfeiffer, Sauk County Agriculture Agent

Rebuilding Forage Inventories: Alternative forages.
by Nick Schneider, Winnebago County Agriculture Agent

To register send $5 per person payable to “Winnebago County Treasurer”
Winnebago County UWEX,
625 E County Rd. Y, Suite 600,
Oshkosh WI 54901
Please register by June 21, 2013
Call 920-232-1970 or email nick.schneider@ces.uwex.edu with questions.

Meeting qualifies for 1 BQA Continuing Education
WINNEBAGO COUNTY FARM BUREAU SCHOLARSHIP

The Winnebago County Farm Bureau is pleased to announce that it will award two $500.00 higher education scholarships. The scholarships will be awarded to two students (including graduating high school seniors) who are enrolled in an accredited college, university, technical college, or Farm Industry Short Course. All majors will be considered for this scholarship; however, the priority is to support students enrolled in an agricultural field of study. Applicants will be judged on leadership, scholastic achievement (minimum GPA of 2.5 on a 4.0 scale), extracurricular activities, and future goals.

The applicant must be from a current Winnebago County Farm Bureau member family. Applicants not receiving scholarships may reapply in subsequent years, but winners of one of these scholarships will be ineligible to apply again.

An outside selection committee, chosen by the Board of Directors of the Winnebago County Farm Bureau, will determine scholarship winners. They will be announced at the 2013 fall Winnebago County Farm Bureau Annual Meeting. Awards will be mailed directly to the trust department of the recipient’s school by October 15, 2013.

Completed applications must be postmarked by July 15, 2013. Send to Winnebago County Farm Bureau Scholarship Program Attn: Jim Kasten, President 3238 Senn Road Omro, WI 54963

Contact Nick Schneider to receive a copy of the application. 920-232-1970 or nick.schneider@ces.uwex.edu.
FOOD PRESERVATION CLASS SERIES
When: Dates from June through September
Time: Varies—See Below
Where: J.P. Coughlin Center and Neenah Library
Cost: Free

Food Preservation Rally: June 3, 2013 6:30-8:30 PM–JPCC
Dr. Barbara Ingham, UW Food Safety Specialist, will be sharing information about the recently Steam Canner Research (advance registration requested).

Dr. Ingham’s Lunch & Learn Webinar series 12 Noon -1:00PM–JPCC (advance registration requested)

June 3: Freezing Produce
June 17: Jams & Jellies
July 1: Canning Vegetables
July 15: Canning Tomatoes & Tomato products
August 5: Time to Make Pickles
August 19: Drying Foods at Home
August 26: Successful Storage of Garden Produce

Workshops Taught by our own Chris Kniep at the Neenah Library:

June 10 @ 6:00PM: Preserving Fruits: Freezing, Canning, Jams, Jellies & Preserves
August 12 @ 6:00PM: Preserving Tomatoes, Salsa, Sauces and Canned Tomatoes
Sept. 30 @ 6:00PM: Preserving Meats

All sessions are free. We are requesting advance registration so that we can have adequate materials prepared for the attendees.

Phone Winnebago County UWEX: 920-232-1970
FARM MANAGEMENT UPDATE FOR AG PROFESSIONALS

When: May 3, 2013
Time: 9:45 am - 2:30 pm
Where: Liberty Hall, 800 Eisenhower Dr. Kimberly, WI
Cost: $30

9:15 am  Registration

9:45 am  Dairy Market and Policy Update
          by Professor Mark Stephenson, UW-Madison

10:45 am  Grain Price Update
           by Jim Cronin, Advanced Trading Inc.

11:30 am  Green $ Going In and Green $ Going Out
           by Kevin Jarek, Outagamie County Crops Agent

Noon  Lunch

1:00 pm  Growing Vs. Buying Feed: A Paradigm Shift
          by Professor Mark Stephenson, UW-Madison

1:30 pm  They Paid How Much For That Land
          by Gary Sipiorski, Dairy Development Manager, Vita Plus

2:30 pm  Adjourn

Make $30 check payable to: UW-Extension
Mail to: UW-Extension Farm Business, P.O. Box 2003
        West Bend, WI  53095-2003
Call with questions: Washington Co. Extension. 262-335-4477
EXCELLENT FARMING VIDEOS ON YOUTUBE

I suspect most of you have watched some crazy videos on YouTube. How about the antique tractor hopped up with a turbocharged Volvo engine (Europeans farmers like their tractors too!) “traktor racing volvo terror” with 11.3 million views or the good ol’ Peterson Bros singing a parody called “farming and I grow it” with 8.48 million views! Those videos are entertaining, but YouTube has become a tremendous tool for spreading knowledge in agriculture. The University of Wisconsin Extension has over 50 short videos to help improve agricultural production. Here are some examples:

SNAP Plus Nutrient Management Software Tutorials, 5 videos:
http://www.youtube.com/user/snapplusuw

UW Extension Integrated Pest Management
http://ipcm.wisc.edu/video/

Popular Titles:
How to Start a Good Alfalfa Stand? (22,768 views)
Cover Crops Following Winter Wheat and Corn Silage Harvest (7,259 views)
How Narrow Should Corn Rows Go? (7,143 views)
Alfalfa Stand Assessment (4,699 views)
Western Bean Cutworm (3,883 views)
Soybean Insect Pests: Japanese Beetle and Soybean Aphid (3,320 views)
Soybean Emergence and Germination Common Issues (1,961 views)
Soybean Cyst Nematode Identification and Management (1,410 views)

Farming by UW-Extension
http://www.youtube.com/playlist?list=PL44D622149CDDDD748

Popular Titles:
Field Corn, Mature Growth Stages Defined (6,637 views)
Field Corn, Early Growth Stages Defined (5,396 views)
Tomato Late Blight in Wisconsin (3,287 views)
Calibrating a Manure Spreader (1,247 views)
The Art of Cheesemaking (1,063 views)
THE BEST CORN PLANTING DATES ARE YET TO COME by Joe Lauer, UW Corn Agronomist
Published April 22, 2013.

This year farmers have been challenged by cool, wet conditions during April. Even though planting dates seem like they have been delayed, especially compared to 2012, we still have not passed the optimum planting dates for corn. Wisconsin farmers can plant a large number of acres quickly. Since 1979, there have been 5 years when 40% or more of the acres were planted in one week (1981, 1984, 1999, 2000, and 2004). Between May 2-9, 1999 and April 30-May 7, 2000 farmers planted 1.5 million acres in one week (42% and 44% of the acres planted in those years).

At the University of Wisconsin Agricultural Research Station in Arlington, we have established planting date trials since 1974. Multiple hybrids are established as soon as field conditions allow. In many years, snow is still in roadside ditches when the first planting date occurs. I pooled data for full-season hybrids with Relative Maturity ratings of 104 to 108 RM for the last 10 years (2003-2012).

**Figure 1.** Corn grain yield response of a full-season hybrids (104-108 RM) to planting date during 2003-2012, Arlington, WI N= 208
The corn grain yield response to planting date is shown in Figure 1. The planting date producing maximum grain yield during this period is April 28. Yields were within 95% of the maximum yield from April 15 to May 12, a 28-day period. By May 10 grain yield is decreasing 0.9 bu/A per day and then accelerates to 2.6 bu/A per day on June 1. Grain yield risk (the spread of the data points around the regression line) is lowest in April and early May at ± 14 bu/A and increases to ± 45 bu/A in late May and early June.

Year affects the planting date when maximum yield occurs, the date of 95% maximum yield, and the yield loss acceleration during late May and early June (Table 1). The date when maximum yield occurs varies from April 10 to May 3. We were still within 95% of the maximum until April 29, 2005 and May 19, 2011.

Table 1. Corn grain yield response of a full-season hybrids (104-108 d RM) to planting date at Arlington, WI.

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>R²</th>
<th>Maximum yield Bu/A</th>
<th>Date of:</th>
<th>Rate of yield (bu/A) loss on:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum yield</td>
<td>May 10</td>
<td>May 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>95% of max yield</td>
<td>May 16</td>
<td>May 20</td>
</tr>
<tr>
<td>2012</td>
<td>35</td>
<td>0.71</td>
<td>232</td>
<td>May 1</td>
<td>0.5</td>
</tr>
<tr>
<td>2011</td>
<td>17</td>
<td>0.80</td>
<td>232</td>
<td>April 30</td>
<td>0.4</td>
</tr>
<tr>
<td>2010</td>
<td>17</td>
<td>0.94</td>
<td>267</td>
<td>April 29</td>
<td>1.2</td>
</tr>
<tr>
<td>2009</td>
<td>22</td>
<td>0.76</td>
<td>242</td>
<td>April 26</td>
<td>0.9</td>
</tr>
<tr>
<td>2008</td>
<td>17</td>
<td>0.95</td>
<td>231</td>
<td>May 2</td>
<td>0.7</td>
</tr>
<tr>
<td>2007</td>
<td>17</td>
<td>0.91</td>
<td>225</td>
<td>May 3</td>
<td>0.9</td>
</tr>
<tr>
<td>2006</td>
<td>17</td>
<td>0.86</td>
<td>238</td>
<td>April 29</td>
<td>1.2</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
<td>0.87</td>
<td>223</td>
<td>April 10</td>
<td>0.5</td>
</tr>
<tr>
<td>2004</td>
<td>15</td>
<td>0.95</td>
<td>230</td>
<td>April 25</td>
<td>1.5</td>
</tr>
<tr>
<td>2003</td>
<td>15</td>
<td>0.78</td>
<td>223</td>
<td>April 29</td>
<td>0.7</td>
</tr>
<tr>
<td>Average</td>
<td>208</td>
<td>0.78</td>
<td>234</td>
<td>April 28</td>
<td>0.9</td>
</tr>
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</table>

Like last year, the important thing to remember is patience. Be ready to go so that when field conditions are fit, you are ready to plant. Our standard planting date recommendation is to plant as quickly and safely as possible after April 20 in southern Wisconsin, and after April 30 in northern Wisconsin.
Winnebago County Agriculture Activities & Advice

HIGHLIGHTS ABOUT SPRING FORAGE YIELD AND QUALITY FROM FALL-SEEDED CEREAL CROPS

With feed inventories running in short supply and slow green up of alfalfa, some farmers are looking at winter wheat harvest for forage rather than waiting for grain. A few more of you planted winter rye and winter triticale for forage harvest this spring. A Focus on Forage article by Zen Miller, Mike Bertram, and Pat Hoffman titled “Fall Forage Rye for Dairy Heifers and Dry Cows” provides some useful guidance. Forage quality and yield of winter wheat and triticale are close to the results from winter rye but not identical. Data from other summaries appears to show quality is influenced by timing of harvest more so than the winter cover crop species.

“What is the yield of fall planted rye?
Generally, fall grain rye will yield 2-3 tons of dry matter with the range of 1-4 tons of dry matter per acre. Optimum harvest timing is in the boot stage. Adequate moisture and hot days cause rye to mature rapidly in the spring, which may shorten the harvest window. An advantage of using fall seeded rye forage for dairy heifers and dry cows is that the range of maturity and the harvest window become longer because lower protein and higher fiber are still acceptable in heifer and dry cow rations.

What is the nutrient composition of fall grain rye forage?
Delaying harvest of fall grain rye in the following spring will reduce protein and increase the fiber content of the forage. A rule of thumb is if the rye is harvested at boot stage, the forage will have a protein content of over 15%. As a result, a mixture of 50% ryelage and 50% corn silage would be adequate to meet the protein requirement of bred dairy heifers (13 %). If the rye is harvested later, the protein may be as low as 10%. Thus the diet may require additional legume silage or protein supplement to meet the protein requirement of dairy heifers and dry cows. Late harvested rye is advantageous in some feeding situations when forages are required to reduce the energy intake of dairy heifers and dry cows. Finally, rye forages may have a high potassium content which may be a concern in dry cow rations. Typical nutrient composition ranges of spring harvested rye forage are presented in Table 1. continue to the next page...
What are the planting options after winter rye?
Most planting options are available to producers, depending on how early winter rye is harvested in spring. Corn, soybean, alfalfa, and alfalfa/forage grass mixtures have all been successfully established. An earlier maturing corn hybrid may need to be planted if rye harvest is delayed into late May or June. No-till is a preferred planting method if the seedbed is in good condition, but tillage may be needed if the field was wet during harvest or manure needs to be incorporated. Some rye will likely regrow from the stubble, but this can be controlled with glyphosate, grass herbicides, or mowing.

Relative to replant options there are a couple of issues that should be known. First, rye has an extensive root system and the capacity to deplete available soil moisture in years where rainfall is short either before or after rye forage harvest. Keep this in mind as planting options are considered in a dry year. It’s best to harvest earlier rather than later under such conditions.

Severe armyworm infestations are a potential problem in corn following winter rye as the cereal forage is an attractive site for moth egg-laying in the spring. Keep a close eye on the developing corn crop and control any rye regrowth as soon as possible.”
FSA Reminds CRP Participants of Maintenance Requirements

All Conservation Reserve Program (CRP) participants are contractually required to maintain the approved cover on the fields that are accepted into the program, according to Brad Pfaff, state executive director of Wisconsin's Farm Service Agency (FSA).

Cover maintenance includes keeping weeds, insects, rodents and encroaching woody vegetation out of the fields. These activities are all to take place outside the primary nesting season that is listed in participants current conservation plan. Additionally nothing can be built or permanently stored on these fields during the contract lifespan, including deer stands and wood piles.

"Over the years, our agency has found that participants don't always understand that they are required to maintain the CRP acreage free from weeds and woody vegetation and that the stocking rates for trees must be maintained as specified in the conservation plan for the CRP contract," said Pfaff. FSA encourages all participants to take the time to read through their conservation plan on their CRP acres as annual random spot-checks are carried out by the local county office. Failure to maintain the cover on your CRP fields according to contract requirements can result in penalties and payment reductions.

CRP Primary Nesting Season Requirements

Maintenance and management activities on CRP acres must be completed outside of the primary nesting season, which begins May 15, 2013, and continues through the date listed in individual conservation plans. "CRP participants must not engage in any CRP maintenance or management activities during the primary nesting season that is listed in your current conservation plan," said Brad Pfaff, state executive director. Participants with maintenance issues that require attention prior to the end of nesting season must contact the county FSA office for permission prior to performing any spot spraying or spot mowing on CRP acres.

Failure to contact the county FSA office prior to any maintenance on CRP acres during nesting season may result in payment reductions or possible contract termination. For questions or more information about maintenance and management activities of CRP acres, please visit your local FSA county office or visit http://www.fsa.usda.gov
Wisconsin FSA Announces CRP General Signup Beginning May 20, 2013

Brad Pfaff, Executive Director of USDA's Wisconsin Farm Service Agency, announced that the 45th general signup for the Conservation Reserve Program (CRP) will begin on May 20, 2013, and continues through June 14, 2013. During the signup period, farmers and ranchers may offer eligible land for CRP's competitive general signup at their county Farm Service Agency (FSA) office.

"It continues to be our goal to ensure that we use CRP to address our most critical resource issues" said Pfaff. "In 2012, many states experienced the worst drought in 60 years. CRP protected environmentally sensitive lands from washing or blowing away. It gave ranchers extra grazing land when they needed it. I expect there will be strong competition to enroll or re-enroll acres into CRP, so I urge Wisconsin's producers to maximize their environmental benefits and make sure their offers are cost-effective."

In addition to erosion control, CRP provides significant water quality benefits including reduced nutrients and sediment loadings and adverse consequences associated with floods as well as expanded and enhanced wildlife habitat.

Currently, about 27 million acres are enrolled in CRP nationwide, 319,000 acres in Wisconsin. CRP is a voluntary program available to agricultural producers to help them safeguard environmentally sensitive land. Producers enrolled in CRP plant long-term, resource-conserving covers to improve the quality of water, control soil erosion and enhance wildlife habitat. Contracts on an estimated 3.3 million acres of CRP are set to expire on Sept. 30, 2013, 73,000 of those acres in Wisconsin. Producers with expiring contracts or producers with environmentally sensitive land are encouraged to evaluate their options under CRP.

Producers that are accepted in the sign-up can receive cost-share assistance for planting covers and receive an annual rental payment for the length of the contract (10-15 years). Producers also are encouraged to look into CRP's other enrollment opportunities offered on a continuous, non-competitive, sign-up basis. Continuous sign-ups often provide additional financial assistance. Those sign-up dates will be announced later.

For more information on CRP and other FSA programs, visit your local FSA county office or http://www.fsa.usda.gov.
CONSERVATION TIP BY PAT LAKE
USDA-NRCS Conservationist

Soil Quality: Managing Cool, Wet Soils

When dealing with cool, wet soils, the first thing is to realize that this is a complex system. Major alterations to individual properties (physical, chemical, biological) can impact the whole soil ecosystem in the absence of conservation practices. Before beginning to optimally manage cool, wet soils, it is critical to understand a few basic principles that will lay the foundation for best management practices. One major soil function is to permit water infiltration. Contrary to popular belief, water infiltration is reduced by tillage. Tillage destroys soil aggregates and results in crusting. Destruction of soil aggregates negatively impacts soil porosity (air spaces in the soil). When soil porosity is reduced, infiltration (the rate water travels through the soil) is reduced and runoff is the result. Furthermore, roots need a porous medium for gas exchange and water availability to achieve optimum growth. Water infiltration into cool, wet soils is important for several reasons, particularly its effects on the freeze/thaw cycle and soil structure.

Researchers and farmers both find that it takes a longer time for wet soils to warm up. The reason wet soils take longer to warm up is the high specific gravity of water, which means it takes a lot of energy to heat the soil water. Even though color and texture impact how quickly soils warm up, it is the water in the soil in cold climates that plays the largest role in the soil warming process in the early spring. This is why it is important to have good infiltration. The better the soil is functioning (e.g., infiltrating), the fewer problems there will be with frost and other water issues. Healthy, functioning soils drain water in times of surplus and at the same time capture needed rain during the growing season when it is needed most. During the fall and winter months and through early spring, healthy, functional soil will infiltrate and drain water throughout the soil profile and reduce ponding on the surface.

Soil quality principles that increase soil function in cool, wet soils:

Reduce physical and chemical soil disturbance (tillage and pesticides)—managing a soil with tillage is like fixing a Swiss watch with a sledge hammer. Using the wrong tool can create a worse problem. Physical disturbance, especially tillage, depletes organic matter, increases soil crusting and reduces infiltration, increases concrete frost by reducing average pore space, and disturbs microbial function.
All these factors impact water infiltration and nutrient availability throughout the growing season. Another way tillage impedes infiltration is by destroying worm and root channels. Pores that are not continuous with the soil surface do not conduct water down into the soil very well. Runoff is increased because tillage destroys the surface porosity needed for water (and nutrients) to soak into the soil. Instead, soil and the fertilizers attached to it end up wasted and in the water. Tillage in cool, wet soils can create a string of events that can cause more harm than good.

Use cover crops—Cover crops are a good way of solving water problems in the winter. Cold tolerant cover crops such as winter wheat and rye, which survive through the winter, have the ability to utilize excess moisture and increase soil strength to ensure an earlier planting date. Soil bearing strength and trafficability is increased with cover crops. Conventional-tilled fields and fields that grow no cover crops have a lower bearing strength versus no-till fields with cover crops (fig. 6). Soils with cover crops have more root and worm channels. The roots in cover crops act like stabilizers in the soil, similar to rebar in concrete.

Reduce compaction—Nature has built-in processes that will reduce soil compaction cycles of wetting and drying and freezing and thawing. In the last 30 to 40 years, farming practices have changed drastically, creating situations where natural rejuvenation of the soil environment by wet-dry and freeze-thaw cycles is inadequate to maintain optimum conditions for crops. Performing field operations on wet soils, using multiple field operations for crop production, eliminating perennial crops from crop rotations, and using heavy equipment contribute to more extensive and deeper compaction.

Nature is very complex. Trying to alter the way the soil ecosystem functions with tillage is expensive, ineffective, and detrimental in the long run. As we mimic the natural soil ecosystem by using diverse crop rotations, by planting cover crops, by minimizing chemical/physical disturbance, and by avoiding compaction, the effectiveness of our efforts to manage cool, wet soils will be accelerated. Be patient. Till less or not at all. It takes years to re-build soil health. It is never too late to start.

Adapted from ‘NRCS Soil Quality Agronomy Technical note 20’ by Pat Lake, Wisconsin Soil Health and Sustainability Team, Oshkosh, WI.
CONSERVATION STEWARDSHIP PROGRAM

The Conservation Stewardship Program (CSP) is a voluntary program that encourages agriculture producers to address resource concerns. CSP provides financial and technical assistance to participants.

CSP is available to all producers, regardless of operation size or crops produced. Applicants must be the operator of record in the USDA farm records management system.

CSP pays participants for conservation performance – the higher the performance, the higher the payment. It provides an annual payment for installing new conservation activities and maintaining existing practices. Through five-year contracts NRCS makes payments annually.

Potential applicants are encouraged to complete the self-screening checklist to see if CSP is right for you at:


Or you can contact your local NRCS District Conservationist, Merrie Schamberger at (920)424-0329 ext 3 or

merrie.schamberger@wi.usda.gov
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http://www.uwex.edu/ces/ag/plantdoc/
Master Gardeners: http://wimastergardener.org
Winnebago County Agriculture Activities & Advice

Winnebago County UW-Extension
625 E County Rd Y Suite 600
Oshkosh, WI 54901-8131

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Community Development  920-232-1972
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