

Columbia County Ag Reporter

November/December 2019



Extension

UNIVERSITY OF WISCONSIN-MADISON
COLUMBIA COUNTY

WHAT'S INSIDE...

Agricultural newsletter for Columbia County landowners and residents

This issue's highlighted articles:

- ◆ Calendar of Events (pg. 2)
- ◆ Corn Growers Meeting (pg. 7)
- ◆ Nutrient Management Plan (pg. 12)
- ◆ Respiratory Health (pg. 18-19)

General Information:

Ag Reporter Calendar.....	2
WI Soybean Yield Contest.....	3
Soil Sampling.....	3
Soil, Water & Nutrient Management Meetings.....	4
WI Agronomy Meetings.....	5
WI Corn Yield Contest.....	6
CC Corn Growers Meeting.....	7
Pesticide Applicator Training.....	7
Dairy Situation.....	8

Planning & Zoning:

Septic System Responsibility....	9-10
----------------------------------	------

Land & Water Conservation:

Poster Speaking.....	11
Farmland Preservation Tax Credits.....	11

Nutrient Management Plan Writing Workshops.....	12
Citizen Advisory Committee.....	12

FSA:

Agriculture Risk Coverage.....	13-14
Dairy Margin Coverage.....	14

NRCS:

Web Soil Survey Program.....	15-17
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General Information:

Respiratory Health with Dusty/ Moldy Grain.....	18-19
---	-------

Directory.....	19
----------------	----

Ag Reporter Calendar of Events

November

- 6 Produce Safety Plan Workshop, Admin Bldg. Room 113/114, 8am
- 28/29 Offices Closed in observance of Thanksgiving

December

- 1 Deadline to Register for WI Soybean Yield Contest
- 3 Soil, Water, Nutrient Management Update Meeting—Madison
- 9 Soil, Water, Nutrient Management Update Meeting—Juneau
- 11 Discovery Farms Conference—WI Dells
- 19 Columbia County Corn Growers, Club 60
- 24/25 Offices Closed in observance of Christmas Eve/Christmas Day
- 31 Deadline to Register for WI Corn Yield Contest
- 31 Offices Closed in observance of New Year's Eve

January

- 1 Offices Closed in observance of New Year's Day
- 6 WI Agronomy Update Meeting—Janesville
- 7 WI Agronomy Update Meeting—Madison
- 7 WI Agronomy Update Meeting—Fond du Lac
- 14-16 WI Agribusiness Classic—Madison
- 21 Pesticide Applicator Training, Otsego Town Hall, 9am
- 27 Nutrient Management Update Class, Admin Bldg, 113/114, 8:30am
- 29 Nutrient Management Update Class, Admin Bldg, 113/114, 8:30am

February

- 5 Nutrient Management Beginner Class #1
- 6-7 WI Corn/Soy Conference – WI Dells
- 12 Nutrient Management Beginner Class #2
- 13 Pesticide Applicator Training – Portage, HHS Meeting Rooms 2&3
- 18-20 Midwest Forage Association Conference – WI Dells
- 19 Nutrient Management Beginner Class #3

The Columbia County *Ag Calendar and Deadlines* webpage is located at <http://columbia.uwex.edu/ag-calendar-and-deadlines/>.

2019 Wisconsin Soybean Yield Contest

Entries must be postmarked by December 1, 2019 to be eligible for this contest

Entry Fee and Deadline

Entries must be postmarked by December 1, 2019 to be eligible for this contest. No late entries will be accepted. An entry fee of \$25 in the form of a personal check must be received with the Contest Entry Form or the form cannot be accepted.



Contest Qualifications

More than one person in a family can enter, but each entry must have a separate entry and fee. The cost is \$25 per entry. Entrant must be at least fourteen (14) years of age or older on or before December 1, 2019.

Contest contact: Dr. Shawn Conley 608.800.7056

Contest web page: www.coolbean.info

Soil Sampling



Remember to schedule your fall soil sampling before the ground freezes. Being able to match up soil sample reports and yield maps can be very helpful as you sit down to update Nutrient Management Plans this winter. Getting soil samples done in the fall gives you better data to work with as you make plans for the 2020 growing season.

We have plenty of soil sample bags, submission sheets, and sampling probes to loan out free of charge from our office. Just stop in and sign them out if you need to borrow a sample probe. Here is a link to the UW-Soil Testing Recommendations and forms from the UW-Marshfield Soils Lab.

UW-Soil testing recommendations <https://www.soils.wisc.edu/extension/pubs/A2100.pdf>

Soil Submission Sheet for Field, Vegetable and Fruit Crops:

<https://uwlax.webhosting.cals.wisc.edu/wp-content/uploads/sites/17/2015/09/>

Soil, Water and Nutrient Management Meetings

The schedule for the 2019 Soil, Water & Nutrient Management Meetings is listed below. Presentation topics include:

- Comparing tillage practices and nitrogen rates for corn: early corn development and yield impacts (Francisco Arriaga)
- Evaluating corn N management decisions (Carrie Laboski)
- Profitability of P and K fertilization of no-till corn and soybean (Carrie Laboski)
- Badger Ag. Tech. Lab Update: Planter aftermarket closing wheels (Brian Luck)
- Wheel traffic effects on alfalfa (Brian Luck)
- Wisconsin nutrient management update (Sue Porter)
- Cover crops, fall manure, and nutrient management (Matt Ruark)
- Biological indicators of soil health (Matt Ruark)

Presentations will begin at 10 am and run until 3 pm, with a lunch break from 12 to 1 pm. Lunch is included in the \$45 fee. Please read carefully and make sure you contact the appropriate person at your desired location.

Tuesday, December 3 – Madison

UW Extension Office, 5201 Fen Oak Dr.

Contact Host: George Koepp and Carrie Edgar, Dane County Extension, Madison, 608-224-3716

Please register on-line at <http://dane.extension.wisc.edu>

Monday, December 9 – Juneau

Dodge Co Admin Bldg, 127 Oak St.

Contact Host: Joe Zimbric, Dodge Co Extension
920-386-3790

2020 Wisconsin Agronomy Update Meetings University of Wisconsin – Madison

The Department of Agronomy will offer Crop Production and Management Meetings at eight locations during 2020. Joe Lauer and John Gaska will present the latest information on hybrid/variety performance, an analysis and discussion of last year's growing season, and updated recommendations for field crop production.

The registration fee includes a meal and information materials. Certified Crop Advisor CEU credits have been requested (3.0 CEU hours-Crop Management). Below is a list of meeting sites, dates and times. A \$45.00 registration fee (which includes the meal) will be charged for the meeting. A “walk-in” fee will be charged to those who have not preregistered. Extra information packets are available for \$21.00 each. **Make your reservations with the host agent one week prior to the scheduled meeting date.**

Below is a list of topics, meeting sites, dates and times. Please join us at meeting in your area.

Corn

- Post-mortem of the 2019 corn planting season
- Variability of the 2019 trials and what it means for selecting hybrids.
 - Corn nutrient uptake during grain filling
 - The corn stover project

Soybeans and Small Grains

- Variety trial overview with trait analysis
- Sulfur and micronutrient trial updates
 - Yield gap planting date results
 - Cover crop termination timing
- Intensive cereal management for wheat

Forages

- Milk2020: The next step in evaluating corn silage quality

Janesville - Monday, Jan. 6 at 12:00 Holiday Inn Express 3100 Wellington Dr. Nick Baker Rock Co. (608) 757-5066 nick.baker@wisc.edu

Madison - Tuesday, Jan. 7 at 7:30 am Comfort Inn 5025 County Hwy. V, De Forest, WI (Hwy V exit West of 90/94) Claudia Wiederholt, (608) 224-3704 <https://fyi.extension.wisc.edu/danecountyag/>

Fond du Lac - Tuesday, Jan. 7 at 12:00 UW Fond du Lac Rm. 114 University Center 400 University Drive Joe Zimbric (920) 929-3171 jwzimbric@wisc.edu



CONTEST ENTRANT QUALIFICATIONS

There is no cost to enter, but the entrant must be a Wisconsin Corn Grower Association member in good standing. Only one entry per membership, but there could be more than one entry per farm if additional memberships are purchased.

CONTEST AWARDS

Cash prizes will be awarded to the first (\$500), second (\$250) and third (\$100) place winners in each geographic division (see map below). The winner is the entry that has the highest corn yield based on bushels per acre. In the event of a tie, both entrants will be recognized as co-winners.

HARVEST RULES

The contest entry must be from a field of corn 10 or more acres in size of one variety. The contest area may be any shape, but must be in one continuous block of corn.

- Entrants and harvest supervisors are responsible for giving accurate row lengths for odd shape plots.
- A total of 1.25 or more acres must be harvested.
- All end rows/turning rows and the equal number of outermost rows on each side may not be a part of the selected 1.25 acre contest plot.

A supervisor must be present at harvest. The supervisors are responsible for completing all computations and field measurements and must be present during harvesting, weighing (gross and tare), and moisture testing. The entrant is responsible for mailing the information. The supervisor must require the entrant to run their combine and any transfer augers to be certain they are empty prior to harvesting the contest area. All wagons or trucks must be checked to make certain they are empty.

Contact George if you would like him to supervise your harvest. George.Koepp@wisc.edu or 608-742-9682

**Columbia County Corn Growers Meeting Agenda
Thursday, December 19, 2019
Club 60, W2164 State Road 60, Columbus, WI**

- 8:00 Registration
- 8:30 Welcome and Sponsor Recognition – Garry Gard
- 8:40 Land and Water Conservation Update – Kurt Calkins
- 8:55 NRCS Update – Twyla Kite
- 9:10 FSA Update – Lexie Meyer
- 9:25 UW Extension – George Koepp
- 9:40 Waterhemp Management and Prevent Plant Acres Management for 2020
Rodrigo Werle, UW Weed Specialist
- 10:20 Break
- 10:30 Soybeans – Sudden Death and White Mold - Damon Smith, UW Plant
Pathologist
- 11:15 Grain Marketing – Presenter TBD
- 11:55 Announcements and Sponsors Thank you
- 12:00 Lunch and networking with our sponsors and growers



**Contact Jennifer Evans to register by Friday, December 13.
608-742-9687 or jennifer.evans@co.columbia.wi.us**

Columbia County Pesticide Applicator Training—2020

- Date: Tuesday, January 21, 2019 - 9am to 3:30 pm - \$30
- Site: Otsego
- Lunch: Sponsored by Landmark Rio Co-op
- Location: Otsego Town Hall
W3199 State Road 16
Columbus, WI
- Limit: 50

- Date: Wednesday, February 13, 2020 - 9am to 3:30 pm - \$40
- Site: Portage
- Lunch: Catered in (\$10.00 for lunch)
- Location: Columbia County Health & Human Services Building
Meeting Rooms 2 and 3
111 East Mullett Street
Portage, WI 53901
- Limit: 40



**Contact Jennifer Evans to register by Friday, December 13. 608-742-9687
or jennifer.evans@co.columbia.wi.us**

**Dairy Situation and Outlook,
By Bob Cropp, Professor Emeritus, University of Wisconsin-Madison**

Milk prices continue to strengthen. Higher cheese prices have increased the Class III price from its yearly low of \$13.89 last February to \$18.31 in September and will be around \$18.65 for October. Cheese prices have been up and down since September, but higher cheese prices have more than offset lower dry whey prices.

Continued relatively small increases in milk production, favorable butter and cheese sales, dairy exports doing better than earlier thought with the ongoing trade war with China, and tighter stock levels have all supported higher dairy product prices and higher Class III and Class IV prices. We can expect some further price strengthening for November before some drop back for December. For the year, the Class III price could average around \$16.75 compared to \$14.65 last year and the Class IV price around \$16.30 compared to \$14.65 last year.

Market indicators are for milk prices to average higher in 2020. Milk prices below the cost of production all of 2015 through the first half of 2019 placed a lot of financial stress on dairy producers and loss of equity. This will keep the increase in 2020 milk production to a modest level. A build back of lost equity will be needed before we see dairy producers responding to higher milk prices. We will likely see no or little increase in the average number of milk cows. July 1st dairy Replacement numbers were 2.4% lower than a year ago. With higher milk prices some dairy producers may find lower producing cows still profitable and keep them in the herd longer.

Barring a recession, domestic butter and cheese sales will be positive for milk prices. Dairy exports could be a little higher in 2020. A summer drought in parts of Western Europe and compliance to environmental issues is keeping the increase in milk production well below 1%. Milk production in both Argentina and Australia is running almost 6% lower due to weather issues. Milk production is running a little higher in New Zealand. Overall it looks like world milk production will be up less than 1% resulting in higher world dairy product prices. Barring a world recession that dampens world demand this should open opportunities for U.S. dairy exports. USDA is forecasting U.S. exports to be up 3.3% on a milk fat basis and 6.5% on a skim solids basis.

As of now I could see the Class III price averaging in the strong \$17's for the first half of the year and the strong \$18's in the second half with an average for the year around \$17.85, more than a dollar higher than 2019. With anticipated stronger nonfat dry milk prices the Class IV price could average around \$17.10, about \$0.65 higher than 2019. USDA's forecast is not quite as optimistic with Class III averaging just \$0.65 higher and Class IV \$0.10 lower. But, all forecasts will no doubt be modified as we move through the year and see what actually is developing. Nevertheless, 2020 should be a better year than 2019.

Your Septic System is Your Responsibility

Did you know that as a homeowner with a septic system, you are responsible for all maintenance and up keep that goes along with these systems? Most homeowners do not give much thought into what happens with your waste when it goes down the drain but if you rely on a septic system to treat and dispose of your wastewater, making sure proper inspections and maintenance are complete will have a significant impact on how well it works and how long it lasts.

When a septic system fails, untreated wastewater can reach the groundwater where bacteria and viruses from human waste can cause illness from the contaminated drinking water. In addition, replacing a failed septic system is costly. The amount you will pay for maintenance and inspections is far less than the replacement of an entire system.



Wisconsin Statue and Wisconsin Administrative code require Columbia County to establish a maintenance program for all Private On-Site Wastewater Treatment Systems (POWTS) in the County. This maintenance program is regulated under Title 16-320-020 of the Columbia County Ordinance and state the following requirements:

- All septic tanks shall be visually inspected and pumped within three years of the date of the installation or inclusion into the POWTS maintenance program and at least once every three years thereafter, unless upon inspection the tank is found to have less than 1/3 of the volume occupied by sludge and scum.



- Pumping of a septic tank shall be done by a certified septage servicing operator in accordance with State Statues, Administrative Code and this ordinance.
- Visual inspections of a POWTS to determine the condition of the tank and whether wastewater or effluent from the POWTS is ponding on the ground surface shall be performed by one of the following (a) a licensed master plumber (b) a licensed master plumber-restricted service (c) a certified POWTS inspector (d) a certified septage servicing operator (e) a registered POWTS maintainer.

Columbia County Planning & Zoning Department mails out two reminders to property owners in the year that their maintenance is due. The first notice is mailed out in spring, and the final notice goes out late summer. The absolute deadline to have these systems pumped and reported back to the Planning & Zoning Department is October 31st.



If you have received these notices but you did have the maintenance complete for the year, please call your service provider to ask them to send the report to the Planning & Zoning Department. It is the pumper or plumber's responsibility to get this to the Planning & Zoning Department within 30 days of the service. Give the service provider a couple days to report this and then make sure to call the Planning & Zoning Department at 608-742-9660 to verify your responsibilities are met for the year and to ensure that citations will not be issued.

Septic systems are designed to provide effective treatment of household wastewater, but without the maintenance and upkeep of these systems, malfunction can not only cost you thousands of dollars, but can also affect the health of your family and neighboring properties if left without the repair. If you have any questions on your system, please contact the Planning & Zoning Department to discuss.



Land & Water Conservation Department Updates & Program Information

Poster/Speaking Contests 2020

The Youth Poster & Speaking Contests are tentatively scheduled for January 20, 2020 and February 3, 2020. The poster theme this year is:

“Where Would We Bee Without Pollinators”

Speeches can be on any conservation-related subject. We would like to see more participants in both contests, the prize packages (donations) are quite generous for participants and also the winners of these contests. Also, including teacher contests that include class participation. These contests are open to any students in the Columbia County area. We are hoping for more interest, so if anyone is interested in entering this contest, please contact our office for forms, deadlines and more information on them, even if your class is not offering participation. There are 3 age divisions for the Speaking Contest, starting at 5th grade, through 12th; but for the Poster Contest there are 5 age groups from K to 12 grades! In addition to the great donations from area businesses for winners and some participants, we will offer a drawing for a Summer Camp scholarship (\$50-100 value!) pertaining to certain age groups.

Reminder For 2019 Farmland Preservation Tax Credits To Be Claimed

When you file your 2019 Farmland Preservation Tax Credit, remember you only need your unique Certificate number when filing your taxes. If you received this number last year on your Certificate of Compliance, it would still be applicable to your land, unless you have removed or added any land which would change the description on your previous Certificate of Compliance. That would require you to obtain a new certificate, obtainable with a new certificate fee of \$25.00. If you continue to meet eligibility requirements including meeting all applicable conservation standards each year and submitting your postcard due to our office every July 15th, that certificate number will still be useable. The date on the bottom of the certificates refers to the date your certification started, you do NOT need a new Certificate of Compliance each year. If you have any questions, please contact our office.



Nutrient Management Plan Writing Workshops



We still have spots available for our 2020 Nutrient Management Plan development classes. This is a great low cost option to learn how to develop your own 590 Nutrient Management Plan. During the three class sessions, you will develop a comprehensive conservation plan along with tillage and fertility plans for each of your fields. We walk you through the process and provide computers for your use, or you may bring your own laptop. Current soil test information (less than four years old) is necessary to complete the plans.

Past participants are encouraged to join us annually for the One Day Workshops to update their Nutrient Management Plans. Past participants are reminded that they need to participate in update class at least once every four years to keep their self-written plan certification current.

We provide class room incentives and lunch through a grant we have from DA-TCP. Please call LWCD at (608)-742-9670 if you have any questions and to register early for any of the 2020 class sessions.

Class Dates for 2020:

Review/Update Class: Choose either January 27th or January 29th

New Plan classes- February 5th, February 12th and February 19th – Attend all three.

Chance To Participate in Citizen Advisory Committee

Columbia County LWCD will be going through a State required update to our DATCP approved Land and Water Resource Management Plan in 2019. This is a very important process that will help guide our Land and Water Conservation programming for the next 10+ years. We will need to populate a citizen advisory committee to help us through the process. If you are interested in serving on the Citizen Advisory Committee, or have questions about the role, please contact Kurt Calkins to discuss. The first scheduled meeting will be on Thursday, December 17, 2019, 6:00-8:00 p.m. All people interested in being part of this committee are welcome to attend. This will be held at the Columbia County Administration Building meeting rooms 113, 114 and 115.



The plan provides long and short term guidance of departmental programming and areas of emphasis. The plan also provides eligibility for the County to gain access to financial resources from state and federal sources. The two-prong approach is a valuable opportunity for citizens to have direct impact in local decision making and priority setting regarding a wide range of natural resource management priorities, including the regulatory management of animal waste and general agricultural nonpoint source pollution abatement.



*Lexie Meyer, Acting County Executive Director,
USDA - Farm Service Agency,
2912 Red Fox Run, Portage, WI 53901*

United States Department of Agriculture

USDA Opens 2020 Enrollment for Agriculture Risk Coverage and Price Loss Coverage Programs

Agricultural producers now can enroll in the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs – two U.S. Department of Agriculture (USDA) safety net programs – for the 2020 crop year. Meanwhile, producers who enrolled farms for the 2018 crop year have started receiving more than \$1.5 billion for covered commodities for which payments were triggered under such programs.

ARC provides income support payments on historical base acres when actual crop revenue declines below a specified guaranteed level. PLC provides income support payments on historical base acres when the effective price for a covered commodity falls below its reference price. The 2018 Farm Bill reauthorized and updated both programs.

Signup for the 2020 crop year closes June 30, 2020, while signup for the 2019 crop year closes March 15, 2020. Producers who have not yet enrolled for 2019 can enroll for both 2019 and 2020 during the same visit to an FSA county office.

ARC and PLC have options for the farm operator who is actively farming the land as well as the owner of the land. Farm owners also have a one-time opportunity to update PLC payment yields beginning with crop year 2020. If the farm owner and producer visit the FSA county office together, FSA can also update yield information during that visit.

Covered commodities include barley, canola, large and small chickpeas, corn, crambe, flaxseed, grain sorghum, lentils, mustard seed, oats, peanuts, dry peas, rapeseed, long grain rice, medium and short grain rice, safflower seed, seed cotton, sesame, soybeans, sunflower seed and wheat.

2018 Crop Year ARC and PLC Payments

FSA began processing payments last week for 2018 ARC-County (ARC-CO) and PLC on covered commodities that met payment triggers on enrolled farms in the 2018 crop year. In addition to the \$1.5 billion now in process, FSA anticipates it will issue another \$1 billion in November once USDA's National Agricultural Statistics Service publishes additional commodity prices for the 2018 crop.

Producers who had 2018 covered commodities enrolled in ARC-CO can visit www.fsa.usda.gov/arc-plc for payment rates applicable to their county and each covered commodity. For farms and covered commodities enrolled in 2018 PLC, the following crops met payment triggers: barley, canola, corn, dry peas, grain sorghum, lentils, peanuts, and wheat.

Oats and soybeans did not meet 2018 PLC payment triggers.



2018 PLC payment rates for the following covered commodities have not been determined: crambe, flaxseed, large and small chickpeas, long and medium grain rice, mustard seed, rapeseed, safflower, seed cotton, sesame seed, sunflower seed and temperate Japonica rice.

More Information

For more information on ARC and PLC including two online decision tools that assist producers in making enrollment and election decisions specific to their operations, visit the [ARC and PLC webpage](#).

USDA Opens 2020 Enrollment for Dairy Margin Coverage Program

USDA's Farm Service Agency (FSA) opened signup for the Dairy Margin Coverage (DMC) Program for calendar year 2020. Dairy producers can now enroll in this program that helps producers manage economic risk brought on by milk price and feed cost disparities.

The DMC program offers reasonably priced protection to dairy producers when the difference between the all-milk price and the average feed cost (the margin) falls below a certain dollar amount selected by the producer. The deadline to enroll in DMC for 2020 is Dec. 13, 2019.

Dairy farmers earned more than \$300 million dollars from the program in 2019 so far. Producers are encouraged to take advantage of this very important risk management tool for 2020.

All producers who want 2020 coverage, even those who took advantage of the 25 percent premium discount by locking in the coverage level for five years of margin protection coverage are required to visit the office during this signup period to pay the annual administrative fee.

Dairy producers should definitely consider coverage for 2020 as even the slightest drop in the margin can trigger payments.

More Information

The 2018 Farm Bill created DMC, improving on the previous safety net for dairy producers. DMC is one of many programs that FSA and other USDA agencies are implementing to support America's farmers.

For more information on enrolling in DMC and taking advantage of an online dairy decision tool that assists producers in selecting coverage for 2020, visit the DMC webpage.

For additional questions and assistance, contact your local USDA service center. To locate your local FSA office, visit farmers.gov/service-locator.

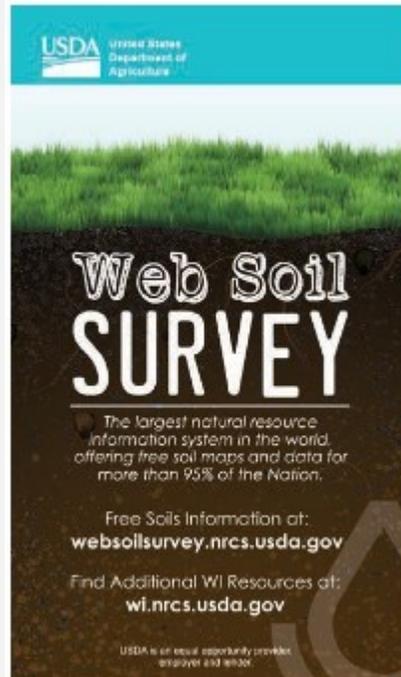


Official Web Soil Survey Available - Soil Science Annual Data Refreshed in October 2019

The National Cooperative Soil Survey Program is an endeavor of the USDA's Natural Resources Conservation Service (NRCS) and other federal agencies, state and local governments, and cooperators. It provides a systematic study of the soils in a given area, including the classification, mapping, and interpretation of the soils. Soil types are classified from physical properties, drawing heavily on the principles of pedology, geology, and geomorphology.

The entire Official Web Soil Survey Database (WSS) is refreshed each year to ensure that updated official data is available to the public in October for use in implementing national programs affecting landowners and managers. Interpretation criteria will be updated for many national interpretations. You can access the data by visiting the Web Soil Survey (WSS) or Soil Data Access (SDA).

Refreshed soil survey information published to WSS includes soil projects for fiscal year 2019, charged by congress to inventory the soils of the U.S., interpret the soils for various uses, publish info to the public and maintain inventory to meet user needs. The EWPP-FPE program is a voluntary program through which eligible applicants agree to sell a permanent conservation easement to the United States through NRCS. Compensation is based on the value of the easement as determined by an appraisal or market analysis. These easements may occur on public or private agricultural land or residential properties damaged by flooding and natural disasters. NRCS will work to



restore the easement to its natural floodplain condition.

New and/or revised interpretations this year for Forestry are below.

Windthrow Hazard: This interpretation evaluates soil and site characteristics for each soil component to provide a rating which identifies areas where trees may be prone to windthrow. While the characteristics of the trees and silvicultural practices are also factors in windthrow, trees growing where the rooting depth is limited and on exposed positions on the landscape are most at risk.

Mechanical Planting Suitability: This interpretation addresses the difficulty of planting trees or shrubs using a mechanical planter. Criteria such as soil texture, rock fragment content and surface slope are evaluated to determine the degree of limitation for mechanical planting. The predictive model was changed to allow better differentiation of the level of limitation for planting. Also, the documentation of how the interpretation works was improved.

Mechanical Site Preparation (Deep): This interpretation addresses the difficulty of using deep soil tillage equipment to prepare a site for planting trees or shrubs. Criteria such as soil texture, rock fragment content, restriction depth and surface slope are evaluated to determine the degree of limitation for mechanical site preparation. The predictive model was changed to allow better differentiation of the level of limitation for site preparation. Also, the documentation of how the interpretation works was improved.

Mechanical Site Preparation (Surface): This interpretation addresses the difficulty of using surface-altering soil tillage equipment to prepare a site for planting trees or seeding. Criteria such as soil texture, rock fragment content and surface slope are evaluated to determine the degree of limitation for mechanical site preparation. The predictive model was changed to allow better differentiation of the level of limitation for site preparation. Also, the documentation of how the interpretation works was improved.

Potential Erosion Hazard (Off-Road/Off-Trail): This interpretation examines the surface erodibility, slope and rainfall erosivity to address the potential for excessive erosion to occur due to relatively small areas of soil disturbance under normal weather conditions. The predictive model was

changed to allow better differentiation of the level of potential for erosion. Also, the documentation of how the interpretation works was improved.

Displacement Hazard: This interpretation is designed to predict the hazard of soil displacement from operations of ground-based equipment for forest harvesting and site preparation activities when soils are dry or moist. Displacement is the horizontal movement of soil caused by scraping or machine gouging. Displacement can remove the organic forest litter and upper portions of the mineral surface layer, reducing plant nutrient availability and water-holding capacity.

Puddling Hazard: This interpretation is designed to predict the risk of soil puddling occurring from operation of ground-based equipment for forest harvesting and site preparation activities when soils are moist. Puddling is the loss of soil structure that results from squeezing and churning of soils by tires or tracks of heavy equipment. Soil particles become dispersed in water, and after they have dried and settled, the smaller particles form a crust on the surface.

Contact Us

Individuals interested in knowing when surveys are updated should visit the WSS and click on the Download Soils Data tab, then choose the State they are interested in. Individuals interested in soil related topics or any NRCS Wisconsin topics may subscribe to topics through GovDelivery . Individuals can also e-mail inquiries to soilshotline@lin.usda.gov for assistance with GovDelivery and the WSS.

Questions about soil data in Wisconsin should be directed to the Wisconsin State Soil Scientist. For more information on the Web Soil Survey, see our report Soil Survey: Uses & Limitations or visit the Wisconsin NRCS Soils Webpage.

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United States Department of Agriculture

Respiratory Health with Dusty and Moldy Grain

Excerpts from "Rural Route" Rural Mutual article, October/November 2017 by John Shutske, Ph.D., agricultural engineering specialist for UW-Madison and UW-Extension. For a copy of the entire article contact George at the Columbia County Extension Office.

Wisconsin farmers working feverishly to get crops harvested before the snow flies may find themselves exposed to a variety of dust. Breathing grain dust can affect your comfort and is a health concern for all in the grain industry.

Grain dust is a complex soup of particles. The smallest dust particles are easily inhaled and find their way deep into the respiratory system. Grain dust is biologically active. It's made up of plant material, mold, insect parts and excreta (bug poop), bacteria, endotoxins (toxins contained in the cell walls of some bacteria) and soil particles including silica.

Most people will have some reaction to dusty harvest conditions. Often, this will be a nuisance reaction (like a runny nose) or throat irritation. In some cases, bigger health problems occur. Even inside a combine's cab, there is some dust. Endotoxins associated with some types of bacteria (even with a sealed cab and proper air filtration) can cause problems for

some individuals. At low dust levels during prolonged and busy harvest operations, a cough is common. This might be an intermittent cough, producing more phlegm when you're working near dust. Other symptoms are chest tightness/ wheezing, sore/ irritated throat, nasal and eye irritation and feeling stuffed-up and congested.

Chronic and acute bronchitis is also common for those who handle grain. Bronchitis occurs as lung passages get inflamed. Grain dust can also be quite a debilitating concern for those with asthma.

Grain dust exposure and related health symptoms are complex. Here are specific things to reduce risk:

- Have a clean air filter in place when operating a combine. Use correct settings on the cab blower when the heater or air conditioner is being used to create a positive pressure. When replacing cab filters, ensure gaskets are installed and sealing correctly.
- Avoid exposures to dust whenever possible, regardless of your sensitivity. When combining, stay in the cab with the door closed when unloading.

- Properly adjust your combine to minimize grain damage and dust generated. Properly harvested grain will store better with fewer mold (and insect) issues.

in these situations. There are other regulatory requirements in commercial grain storage facilities. Consult experts before requiring employees to use respirators.

- Wear a NIOSH-approved 'N-95' dust mask that fits properly in conditions where dust is unavoidable. Caution: Wear a respirator only if you are free of health problems, particularly with your heart and lungs. If you need extra protection, a powered air purifying respirator (PAPR) or 'air helmet' can be used

- If you feel sick, call your health care provider. This is especially important if you know you are allergic to these dusts, or if your symptoms continue to get worse.
- Smoking makes grain dust exposure symptoms much worse.

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STAFF DIRECTORY

UW-Extension Columbia County Agriculture Staff

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- Kathleen Haas, Community Resource Educator(608) 742-9683
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