

Agricultural Newsletter

UW-Madison College of Ag & Life Science
University of Wisconsin-Extension



Beginning Farmer Course Offered

LCO College, Hayward

*Otto Wiegand
Area Agricultural Agent
Burnett, Sawyer, & Washburn Counties*

The Wisconsin School for Beginning Dairy and Livestock Farmers course will be offered locally this fall and winter at the LCO College in Hayward beginning Nov. 8. The course comes through the University of Wisconsin Farm and Industry Short Course and is co-hosted by UW-Extension and the NW Graziers Network.

Delivery will be done through interactive video and audio. Most of the subject materials apply to both grass-based and conventional farming and cover dairy, beef, sheep and goats. An important aspect of the course is business planning. If desired, participants will be able to develop their own business plans by the end of the course. Since the course began in 1995, over 450 students have enrolled and a third have gone on to start their own farms.

There are 14 regular class sessions starting Nov. 8. The course is divided into three terms. Classes run from 11:00 AM to 1:30 PM on Thursdays except for one class on the Tuesday before Thanksgiving. Participants who miss a class may catch it later on-line. The entire course can also be taken on line. Participants may opt to take individual class sessions. The cost of the entire course will be \$240 or \$15 per session. Sometimes scholarships are available.

Subjects may vary, but usually include starting a livestock business, whether confinement or grazing, grazing system layout, stray voltage, goal-setting, feeding on pasture, production and marketing of pasture-based beef, goat and sheep dairying, information on beginner loans, enterprise budgets, farm-driven marketing, business plan writing, successful models for business startups, bio-fuels and farm energy, organic farming, low-cost parlors, out-wintering and environmental stewardship. A brochure for the course will be available. Also watch for press releases in the papers. Additional afternoon topics of interest may be added by local UW-Extension if requested. Bring your own lunch.

Please register by Nov. 5th if you plan to attend the entire course. To register or obtain further information, contact Otto Wiegand or Kevin Schoessow at UWEX Spooner at 715-635-3506, or Dick Cates in Madison, 608-265-6437. The course is a collaborative effort between the UW-Center for Integrated Agricultural Studies, UW Cooperative Extension, CALS, DATCP, the Technical Colleges and GrassWorks.

October-November-December
2012
Volume 18 Issue 4

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produced by
University of Wisconsin-Extension
and
UW-Madison College of Ag & Life
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2012 Beginning Sheep Shearing School

Dr. David Thomas
UW-Extension Sheep Specialist

The annual Beginning Sheep Shearing School will be held on Saturday and Sunday, December 1 and 2, 2012 at the Sheep Unit, Arlington Agricultural Research Station, Arlington, WI. The school will cover basic shearing skills including sheep handling, shearing positions, wool handling, and equipment care and maintenance. Cost of the school will be \$75.00 per participant. All equipment will be furnished. Participants can bring their own shearing equipment if they wish. Registration includes lunch both days. Lodging is not included, but a list of local hotels will be provided. Please contact Todd Taylor (608-846-5858, toddtaylor@wisc.edu) with questions and to obtain registration information.

The registration deadline is November 1, 2012, and enrollment will be limited to the number of students the space can accommodate. The school is organized by the Department of Animal Sciences, University of Wisconsin-Madison; Cooperative Extension, University of Wisconsin-Extension; and the Wisconsin Sheep Breeders Cooperative.

Those interested in attending the 18th Annual Dairy Sheep Association of North America Symposium from October 18-20, 2012 in Washington DC should contact Laurel Kieffer, at kcf.laurel@tcc.coop, 715-695-3617.

Grant Programs for Farmers & Food Entrepreneurs

Otto Wiegand
Area Agricultural Agent
Burnett, Sawyer, & Washburn Counties

Join us for a workshop at UW-Barron Co. in Rice Lake on Thursday, Nov. 8 from 9:00 AM – 3:30 PM designed to help you identify which grants or other financial options might be right for you. This workshop is designed to give farmers and agricultural entrepreneurs' information, tools, and hands-on training to strengthen grant and loan applications. It will help you create a competitive application and get the financial resources you need to fuel your business. You will walk through an actual proposal and work together to develop key components of a strong proposal. The registration is \$15 to cover lunch.

Specific grant programs to be covered include:

SARE - Farmer and Rancher Grant

DATCP - Ag Development and Diversification (*currently not funded*), and Buy Local, Buy Wisconsin (*currently not funded*)

USDA - Specialty Crop Block Grant, Value Added Producer Grant, and Farmers Market Promotion Grant

Workshops will also be held in Sparta, Waukesha, and Green Bay. For more information, contact Jennifer Blazek, Polk Co. Ag Agent, 715-485-8600.

Moldy Corn and Crop Insurance

Damon L. Smith, Plant Pathology,
UW-Madison/Extension

Paul D. Mitchell, Agricultural and
Applied Economics,
UW-Madison/Extension

Corn harvest is beginning throughout Wisconsin and should proceed quickly with the projected dry weather. Though the USDA estimates that the state average yield will be 130 bu/acre, yields have been varying greatly from one location to the next. Some growers will find themselves with decent yields and good test weights, and so they may feel no need to contact their crop insurance agent. However, due to the moisture and heat stress with the drought of 2012, Wisconsin farmers should be especially aware of moldy corn this year, for the health of their livestock and food safety. Buyers will also be looking for moldy corn. We have already heard reports of loads of corn being rejected due to mold and mycotoxin contamination. Quality losses due to moldy corn are insurable losses for those with crop insurance, even if the total harvested yield will not trigger an insurance indemnity. Appropriate grain samples have to be collected and tested before harvest. Farmers suspecting losses due to moldy grain should contact their crop insurance agents before they harvest, otherwise they may forfeit crop insurance indemnities for quality losses.

Corn Molds and Mycotoxins

Aspergillus species and *Fusarium* species are fungi that cause molds and produce mycotoxin problems in corn. Both are very common in nature. *Aspergillus*

species tend to grow best between 80 and 100 degrees F, with 85% relative humidity and grain moisture of 18%-20% also favoring fungal growth and aflatoxin production. Fungal infections are also more common in corn under stress, such as from drought, heat, insects, nutrient deficiency, etc. As a result, *Aspergillus* ear rot in corn is typically more common in southern states, but conditions in Wisconsin during 2012 were favorable for increased risk of *Aspergillus* ear rot. Fungal growth and visible mold on corn can lead to grain contamination with mycotoxins – toxins produced by these fungi. *Aspergillus* ear rot on corn can produce aflatoxins – highly toxic compounds officially listed as potential carcinogens.

The FDA has established aflatoxin maximum acceptable limits of 20 parts per billion (ppb) for corn used as feed for dairy animals and 0.5 ppb in milk. These extremely low levels reflect the highly toxic nature of these compounds and the importance of examining corn at harvest and testing for aflatoxin. Other mycotoxins can also cause problems. More common in the upper Midwest are *Fusarium* species that can infect corn kernels and produce fumonisins and vomitoxin.

The FDA has established maximum allowable levels of fumonisins in corn and corn products for human consumption ranging from 2-4 parts per million (ppm). For animal feed, maximum allowable fumonisin levels range from 5 ppm for horses to 100 ppm for poultry. Vomitoxin limits are 5 ppm for cattle and chickens and 1 ppm for human consumption.

Reducing Mycotoxin Risks

Before harvest, farmers should check their fields to see if moldy corn

is present. Similarly, during harvest they should carefully monitor the grain for mold. If substantial portions of fields appear to be contaminated with mold, it does not mean that mycotoxins are present and vice versa.

Appropriate grain samples should be collected and tested by a reputable lab. Work with your corn agronomist or local UW Extension agent to ensure proper samples are collected and to identify a reputable lab. If tests show high levels of aflatoxin in grain, that grain **SHOULD NOT BE BLENDED** with uncontaminated corn. The FDA has established a “do not blend” policy for aflatoxin due to its extreme toxicity.

If you observe mold in certain areas of the field during harvest, consider harvesting and storing that corn separately, as it can contaminate loads and the fungi causing the moldy appearance can grow on good corn during storage. Harvest corn in a timely manner, as letting corn stand late into fall promotes *Fusarium* ear mold. Avoid kernel damage during harvest, as cracks in kernels can promote fungal growth. Also, dry corn properly (12% or less), as grain moisture less than 12% typically inhibits fungal growth. Finally, keep storage facilities clean.

Crop Insurance Rules

Quality losses due to moldy corn are insurable losses for those with crop insurance, but to claim indemnities, growers must follow crop insurance rules. If you suspect aflatoxin or other mold issues, contact your crop insurance agent before harvesting, storing or selling the corn. Farmers will likely lose indemnities

for grain quality losses if grain is harvested. If aflatoxin tests indicate contamination above safety limits (e.g., 20 ppb for aflatoxin), insured growers following proper procedures will be compensated for the reduction in value of the grain. The key is to communicate with your crop insurance agent before harvesting contaminated grain. Your crop insurance agent will tell you how to proceed: how to collect grain samples and how many samples to collect. Also, growers may be asked to leave unharvested rows for crop loss adjustors to use to determine indemnities. Expect delays in crop loss adjustment, as the system is overwhelmed with insurance claims this year, but your crop insurance agent will be able to tell you how to proceed to confirm suspected aflatoxin contamination in order to receive indemnities if they are due.

For More Information

Contact your local UW Extension agent or the authors with questions or for more detailed information and your crop insurance agent with specific questions regarding your crop insurance coverage. Also, the USDA Risk Management Agency also has two fact sheets:

- Loss Adjustment Procedures for Aflatoxin: <http://www.rma.usda.gov/pubs/rme/2012aflatoxinfs.pdf>
- Aflatoxin Testing: IA, MN, WI: http://www.rma.usda.gov/fields/mn_rso/2012/2012aflatoxin.pdf

Damon L. Smith can be contacted at dsmith26@wisc.edu, 405-334-1975, or Paul D. Mitchell at pdmitchell@wisc.edu, (608) 265-6514.

Farmer to Farmer Website Helps Connect Buyers and Sellers

*Mike Ballweg, Agricultural Agent
Sheboygan County*

The Farmer to Farmer Corn and Forage Website is probably best thought of as an electronic neighborhood bulletin board which allows local farmers to get in touch with one another. The website facilitates the local marketing of feed commodities where livestock producers in need of high-moisture corn, corn silage, hay, or straw can easily make contact with sellers that have feed commodities for sale. The site was developed and is supported by UW-Extension, and can be found at <http://farmertofarmer.uwex.edu>. Farmer to Farmer is free of charge for both buyers and sellers. Users can search for or list for sale high moisture corn, corn grain, haylage, hay or straw. Buyers can search for farmers in just one Wisconsin county or in any number of counties at once.

This site is an excellent way for buyers and sellers to get in-touch locally. Neighbors often within short distances have been able to buy and sell as a result of the website. Buyers can locate feed for their animals easily. Sellers can find buyers and save money in grain drying and marketing costs if they choose to sell their corn crop as high-moisture corn or silage.

People who wish to use this service but do not have access to the Internet, can get access and assistance at their county UW-Extension office. Another good listing service for hay in NW Wisconsin is the Upper Midwest Haylist from the University of Minnesota at www.haylist.umn.edu/. For more information, contact Otto Wiegand or Kevin Schoessow at UW-Extension in Spooner, 800-528-1914 or 715-635-3506.

Heart of the Farm

Women in Agriculture Conference

*Otto Wiegand, Area Agricultural Agent
Burnett, Sawyer, & Washburn Counties*

A third Heart of the Farm-Women in Agriculture Conference will be held in Solon Springs in early 2013. Heart of the Farm is a UW-Extension program committed to addressing the needs of farm women by providing education on farm business topics, connecting them with agricultural resources and creating support networks.

Since 2002 there have been more than 30 Heart of the Farm one-day conferences held across the state reaching over 800 participants. As a result of these programs, participants have improved their record keeping skills, implemented production changes, made decision on retirement needs, and much more!

If you would like to be part of the planning committee for the conference or want more information, please contact Jane Anklam, Douglas County Extension Ag Agent, at 715-395-1363, Ag Agents Otto Wiegand or Kevin Schoessow at the Spooner Research Station, 800-528-1914 or 715-635-3506, or Jenny Vanderlin at jmvander@wisc.edu, 608-263-7795.

Considering Alternatives to High-Priced Corn? FedVal 2012 Can Help

*Adapted from Zen Miller, Agricultural Agent
Outagamie County*

FeedVal 2012 is a decision support tool especially designed to help dairy and livestock producers, nutritionists, and consultants make optimal financial decisions for purchasing and using feed ingredients for dairy/livestock farm feed rations. It uses the actual value of feed ingredients and the relation of this value with its market value. Feed products can be included in one evaluation and not in another if only certain feed products are available. It calculates the predicted value and the actual price as a percentage of the predicted value of all ingredients available in a user-defined analysis.

The tool can evaluate 46 ingredients and has spots for five extra feed products. It can evaluate up to thirteen different nutrients like crude protein, neutral detergent fiber (NDF), net energy of lactation (NEL), calcium, phosphorus and more. The predicted value of a feed ingredient is the aggregation of the value of all nutrients contained in the feed. FeedVal 2012 will note those ingredients that are overpriced and those that are underpriced. Pricing is given in percents and highlighted in red for too expensive or green for price below 100 percent. FeedVal 2012 is an on-line tool openly available at the Wisconsin Dairy Management website, www.DairyMGT.info. Click on 'Tools' and then 'FeedVal 2012.'

Fall is Still a Good Time to Sample for SCN and Other Plant Parasitic Nematodes

*Kevin Schoessow, Area Agricultural Development Agent
Burnett, Sawyer, & Washburn Counties*

As soybean acreage increases in the northern parts of the state, it is important that soybean growers monitor and understand the impacts of soybean cyst nematode (SCN). This pest can significantly reduce soybean yields, and growers should be aware of the presence of SCN in their fields so that proper management decisions can be made.

The WI Soybean Marketing Board (WSMB) sponsors free nematode testing to help producers stay ahead of this important soybean pest. Eggs of SCN persist in the soil between soybean crops, so a sample can be submitted any time that is convenient. The soil test report indicates the number of eggs in the sample and is useful for selecting the right variety for the next soybean crop. Retests of fields planted with SCN-resistant varieties over multiple years show how the nematode population is responding to variety resistance and provides an early warning should the nematode population adapt to host genetics.

Growers wanting to monitor SCN can obtain a free soil sample test kits through the UW-Madison Agronomy Department by contacting My Linh Do, at (mldo@wisc.edu) or at 608-262-1390.

Be on the Lookout for Aflatoxin Problems This Fall

From the UW-Extension Beef Information Center Website (<http://fyi.uwex.edu/wbic/>)

The hot dry growing season was favorable for aspergillus mold in corn. Aspergillus mold growth can lead to the presence of aflatoxin on the corn grain. There have already been a few reports of problems from Iowa due to aflatoxins this fall. Testing any suspect corn is a good idea this year, especially when looking at the value of cattle and the costs in raising them. It won't take many problems to end up with profit losses.

The University of Nebraska recently held webinar with Dr. Steve Ensley, a Veterinary Toxicologist at Iowa State University, as the guest speaker. Dr. Ensley presented information on aflatoxin problems and management. The webinar is recorded and can be watched via the internet at the following address <https://connect.unl.edu/p1buq6154b7/>. If you have limited access to the internet and would like to view this presentation please call your local UW-Extension office to make arrangements to listen to it.

Grain Dust and Your Health in the Harvest Season

From the UW-Extension Agricultural Safety & Health Website (<http://fyi.uwex.edu/agsafety/>)

For individuals working with grain, it is important to understand the potential health concerns that can be associated with grain dusts. Grain dust can be a mixture of particles of grain, soil, plant material, fungi, bacteria, residues of agricultural chemicals and the excreta of insects, rodents and birds. The mixture varies with the type of grain, growing conditions and how it was harvested, stored and processed. Spoiled grain is especially contaminated with dust and bacteria.

These dusts can affect the respiratory tract in a variety of ways (see table below) and can cause gastrointestinal problems, skin rashes and eye irritations. Individuals may react quite differently to the same dust. Each person's work history, health status and smoking history is unique. Thus, some people may be quite sensitive to the dust while others may be able to withstand several exposures prior to becoming sensitized.

Respiratory Problems Caused by Grain Dusts

Respiratory Disease	Symptoms	Comments
Inflammation of air passages · upper airways · acute bronchitis	Stuffy nose, runny nose, sore throat, cough, spitting up phlegm	These common reactions are bothersome but cause no permanent damage
Asthma (often called grain asthma or barn allergy)	Wheezing, labored breathing, cough	Asthma may be an immediate response to grain dust, may be delayed for several hours, or may recur successive nights following exposure
Chronic Obstructive Pulmonary Disease · chronic bronchitis · airway obstruction	Recurring cough, phlegm production for two or more years, labored breathing, wheezing	Prolonged exposure to grain dust can lead to permanent lung damage. Cigarette smokers experience these same symptoms. Cigarette-smoking grain handlers often get these respiratory symptoms sooner or at a younger age than non-smoking grain handlers
Toxic Organic Dust Syndrome (TODS) (sometimes called grain fever)	Flu-like symptoms including chills, flushed face, muscle pain, general bodily discomfort	TODS follows heavy exposure to grain dusts. Symptoms occur for new workers four to six hours after exposure. Can occur in other employees after temporary removal (such as on a Monday following a weekend at home). TODS also can occur among farmers after exposure to confinement house dusts and moldy hay
Farmers Lung	Flu-like symptoms including cough, fever & chills, labored breathing, muscle pain, general discomfort	Caused by dusts from moldy hay, silage and grain. Symptoms start four to eight hours after exposure. Even small amounts of dusts can cause illness after a person has become sensitized. Can cause permanent lung damage and death

Controlling Exposure and Personal Protective Equipment

Avoiding direct exposure to dust whenever possible, stay in the cab when unloading, use wind to your advantage to clear the air. Have the correct and clean air filter in place when operating the combine and make sure your machine is properly adjusted to minimize grain damage. Finally, don't be afraid to wear personal protective equipment (PPE) such as dusk masks, respirators, or helmets. Your local farm supply store, or catalog stores such as Gemplers or Nasco all carry PPE that can help protect you from unnecessary health risk from grain dust or other hazardous air borne particulates.

Corn Harvest, Drying Challenging Again This Year

*Adapted from Kenneth Hellevang, North Dakota State University
Scott Sanford, University of Wisconsin-Madison*

Drought conditions stressed this year's corn crop in many areas, leading to weak stalks and shanks. Weak stalks contribute to "downed" corn due to wind or other forces, and weak shanks contribute to "ear drop" and large field losses. Farmers need to check the condition of the corn in the field. Drought conditions also are leading to larger than normal in-field corn moisture content variations. Reports indicate some moisture content varies from 15 to 25 percent in the same field due to soil variations or other contributing factors. If kernel size or density varies along with the moisture content, the result could be "pockets" of wet corn in a bin. That occurs when grain segregates based on size and density as it flows into a bin. Generally, the smaller and denser material will accumulate in the center and the larger material flows to the perimeter of the bin. Using a distributor or "coring" the bin may reduce the accumulation of smaller material in the center of the bin.

A September harvest also may cause in-bin drying problems. A natural-air drying system that provides an airflow rate of 1 cfm/bu (cubic feet per minute of airflow per bushel of corn) will dry 20 percent moisture corn to about 14 percent (North Dakota October average) ambient air conditions of 50 degrees and 65 percent relative humidity. The estimated drying time is about 37 days, and the allowable storage time (AST) of 20 percent moisture corn at 50 degrees is about 65 days. Average ambient air conditions for September are 60 degrees and 65 percent relative humidity. An air drying system using average September conditions will dry 20 percent moisture corn to about 13 percent in about 37 days. The drying time is the same because the corn is dried to 13 percent in September and 14 percent in October, so more moisture is being removed during September. The concern with drying in September is that the AST is reduced to about 28 days. The drying time exceeds the AST, so a quality loss may occur before the corn gets dry and the entire storage life of the corn has been "used up." Thus, problems also may develop during storage.

The drying speed is related to the airflow rate, so the drying speed can be increased by not filling the bin with corn. For example, if the bin is only one-half full, the expected airflow rate will be about 2 cfm/bu and the drying rate twice what it is with an airflow rate of 1 cfm/bu. Running the fan only at night to dry with cooler air will lengthen the AST, but it also will lengthen the drying time. For example, running the fan for 12 hours at night during September will reduce the average air temperature to about 50 degrees, so the AST of 20 percent moisture corn is extended to about 50 days. However, the drying time also will be extended to about 75 days due to the fan only operating for one-half of the day. The storage life of corn produced this year may be shorter than normal, so farmers need to be more diligent with drying and storage management. This is because the storage life of grain grown under stressful conditions is normally shorter than that of grain developed without plant stress.

This Quarter's Events

Contacts: UW-Extension Ag Agents Otto Wiegand or Kevin Schoessow, Spooner Station, 715-635-3506/800-528-1914, Jane Anklam Douglas Co, 715-395-1363, or Jason Fischbach, Ashland & Bayfield Counties, 715-373-6104 x5 for more information.

Oct 2-6, Tues-Sat – World Dairy Expo, Madison – for those interested in grazing, seminars are scheduled on Friday, Oct. 5.

Nov 6, Tues 10am – 3 pm, Pest Management Update Meeting, Eagles Club, Lake Hallie, contact Jerry Clark, Chippewa/Eau Claire Co. Crops Agent, 715-726-7950.

Nov 8, Thurs, 9:00-3:30 – Ag Grants Workshop, UW-Barron Co, Rice Lake – contact Jennifer Blazek, Polk Co. Ag Agent, 715-485-8600 (see article).

Nov 8–Mar – Beginning Farmer Course, LCO College, Hayward - 14 sessions, 2-3 hours per session, \$240 for full course or \$15 per session, now in its 6th consecutive year in this region, contact Otto Wiegand, 715-635-3506 (See article).

Nov 29, Thurs, 10am – 3 pm, Soil and Water/Nutrient Management Update Meeting, Eau Claire County Expo Center. contact Jerry Clark, Chippewa/Eau Claire Co. Crops Agent, 715-726-7950.

Dec 1-2, Sat-Sun – Beginning Sheep Shearing School, Arlington UW Research Station (See article).

Jan 8, Tues 8-10 am, Agronomy Update Meeting, Holiday Inn Campus Center, Eau Claire, contact Jerry Clark, Chippewa/Eau Claire Co. Crops Agent, 715-726-7950.



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Kevin Schoessow
UWEX Area Agricultural Agent