



CHIPPEWA VALLEY AGRICULTURAL EXTENSION REPORT

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Upcoming Meetings—contact local Ag Agent for more info:

Jan. to Mar.—Private Pesticide Applicator Training, Dunn, Eau Claire and Chippewa County. If your Private Pesticide Applicator license will expire in 2015 or are interested in obtaining your PAT license, please contact a UW-Extension office now to register for an upcoming training session. Training manuals must be picked up prior to attending a training session. Please view the Calendar of Events for scheduled sessions.

Jan. 21st—Renting Farm Assets Workshop, Dunn County Judicial Center, Menomonie. Change is occurring with cropland rental, pasture and farm building rates in the area. Local UW-Extension Ag Agents and UW State Specialists will bring forward the latest information and tools for landlords and tenants. For more information contact Katie Wantoch, UWEX Dunn County.

Jan. 22nd—Farm Financial Recordkeeping Using QuickBooks, CVTC, Menomonie Are you interested in learning how to use QuickBooks computer software for your farm financial recordkeeping? Or build upon what you already do know? The University of Wisconsin-Extension Center for Dairy Profitability and UW-River Falls are offering a beginning hands-on workshop using this program at the Chippewa Valley Technical College, Menomonie Campus, 403 Technology Drive, Menomonie WI. Cost is \$20 per person. Contact Katie Wantoch, UWEX Dunn County, or Mark Denk, CVTC, for more info.

February 5 & 12—UW-Extension AgVentures Grain Marketing and Cost of Production Series, Sleep Inn & Suites, Eau Claire. Marketing is becoming an increasingly important part of managing a farm business. With volatile grain market prices this year, now is the time to learn more about grain marketing and determining what the cost of production is for your farm business. Attend both of the two workshops in this series to learn what is risk, what is your risk tolerance, calculate your cost of production, review price forecasting options and develop your marketing plan. Local UW-Extension Ag Agents and UW State Specialists will bring forward the latest information and materials. For more information contact Katie Wantoch, UWEX Dunn County, or Jerry Clark, UWEX Chippewa County.

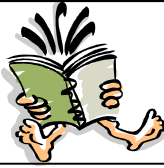
**HAPPY HOLIDAYS
FROM ALL OF US
AT YOUR LOCAL
UW-EXTENSION
OFFICE!**



CHIPPEWA VALLEY AGRICULTURAL EXTENSION REPORT

Katie's Korner . . .

Katie Wantoch,
Dunn County Agricultural Agent

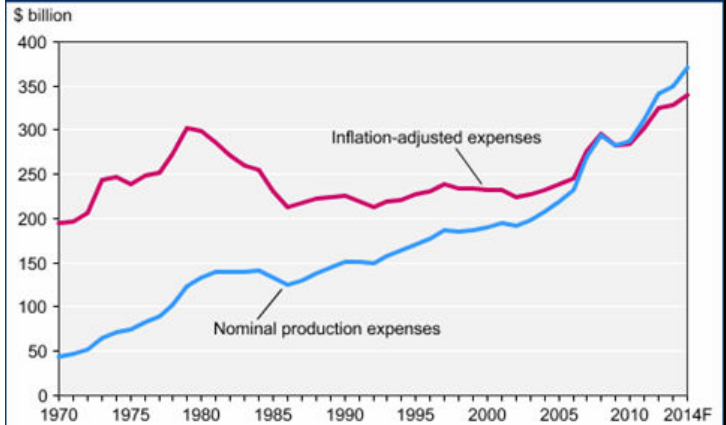


Record Year for Farm Prices

2014 will be a year for the record books in Wisconsin with milk prices hitting all-time highs each month and corn yields continuing to increase to new highs. While milk prices received by dairy farmers have been high, the U.S. Department of Agriculture's Economic Research Service (ERS) updated its 2014 Farm Sector Income Forecast and anticipates net farm income to be down 21.1% to be \$96.9 billion in 2014. The 2014 forecast would be the lowest since 2010, but would remain \$16 billion above the previous 10-year average (\$80.8 billion).

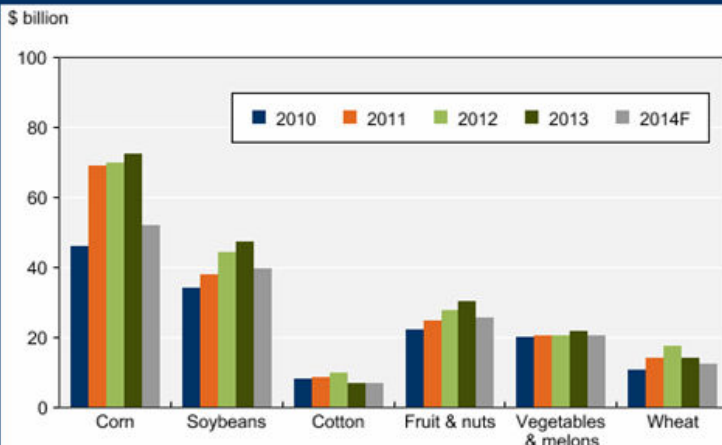
would be the highest on record both nominally and in inflation-adjusted dollars. See chart below.

Nominal and inflation-adjusted farm production expenses, 1970-2014F



Note: F = forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.
Data as of November 25, 2014.

U.S. value of production for selected crops, 2010-2014F



Note: F = forecast.
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.
Data as of November 25, 2014.

As the chart above depicts, the annual value of U.S. crop production is expected to decline in 2014 from 2013's all-time high. Corn production has increased significantly since the 2012 marketing year, with corn exports more than doubling. Soybean production has also increased significantly since the 2012 marketing year as have soybean exports.

The projected \$19.8-billion increase in 2014 production expenses extends the rapid upward movement in expenses that has occurred over the past 5 years. Production expenses forecast for 2014

How is farmland leasing shaping up?

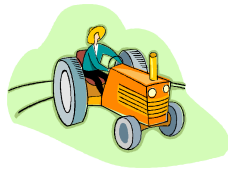
After several years of increases in rents and land values, 2015 might be the year we start to see a different kind of change. Included in this newsletter you will find a postcard and letter asking you to help our office provide accurate information about farmland cash rental rates in Dunn County.

If you have submitted previous responses and your rental rates have not have changed, returning your postcard is still important to determine current rental rate trends for this upcoming year. Increased response rates result in our office's ability to provide more accurate and specific information by township for Dunn County. County level averages and information are available from the [USDA National Agricultural Statistics Service](http://www.nass.usda.gov/).

This summer, ANRE intern Kaylin Spaeth, completed an evaluation of the use of farmland rental rate factsheets produced by the Dunn, Pierce, and St. Croix County UW-Extension offices and the potential educational impacts resulting from farmland rental rate factsheets. Analysis was done to quantify how people tend to use the factsheet, how they would like to receive it, and what can be done to improve its use. To view this report, previous published Dunn County Farmland Rental Rate Factsheets and other leasing information, please visit—<http://dunn.uwex.edu/agriculture/farm-management/farm-lease-information/>.

Mark's Musings...

Mark Hagedorn,
Eau Claire County
Agricultural Agent



Reduced-Lignin Alfalfa is on the Horizon

Alfalfa is the most important forage legume in U.S. dairy cow diets because it has a high protein content, it increases feed intake and milk production, and it is an excellent complement to non-forage components of dairy cow diets. It is also an excellent source of effective fiber which is essential for maintaining proper rumen function and cow health. Reduced-lignin (R-L) alfalfa — a transgenic crop developed to offer growers harvest flexibility — could be sold and planted as early as 2016.

Shift in Harvest Strategies

In geographies that typically take four harvests, there is opportunity to improve yields upwards of 15 to 20 percent by harvesting only three times, and obtaining the same or better quality than late-bud harvests. R-L alfalfa can totally change the impression of second-cut alfalfa, which is grown under excessive heat and often results in poor herd performance when cows are switched onto this cutting.

While the technology fee for R-L seed has yet to be determined, R-L alfalfa should result in a significant reduction in cost of production due to improved yields from fewer trips across every alfalfa acre. It is also believed that stand life will be extended due to reduced wheel traffic damage and much improved root carbohydrate storage in plants that are allowed to mature beyond late-bud stage. We have probably underestimated the stress put on aggressively-harvested alfalfa stands considering that initial regrowth following harvest is dependent on carbohydrates stored in the tap root.

Feeding Considerations

Lignin in alfalfa cell walls (primarily the stem) acts similar to rebar in concrete to enhance plant structural integrity. A query of laboratory tests, shows that from 2010 to 2012, alfalfa hay averaged 7.6 percent lignin (range of 5.3 to 9.8) with alfalfa silage averaging 8.4 percent (range of 6.3 to 10.6). It is interesting that silage would have higher lignin than hay, but this could be a result of uncontrolled fermentation which would reduce sugars and thus elevate the lignin. Early indications are that R-L alfalfa, even with upwards of 20 percent less lignin in the plant, does not lodge with any greater frequency than conventional alfalfa varieties.

The downside of lignin is that it interferes with the rate at which rumen bacteria can access and ferment cell wall cellulose and hemicellulose. The improved fiber digestibility of R-L alfalfa will likely provide the most benefits in transition and early-lactation diets where dry matter intake is of most concern.

Summary

- Transgenic alfalfa plants have been generated that show decreased lignin content and increased fiber digestibility.
- Early studies show that agronomically useful lignin-modified cultivars are commercially feasible because, wherever the plants are grown, the reduced lignin trait will be expressed without negatively impacting alfalfa stand performance.
- Future research will focus on additional/alternative ways to decrease lignin's impact on digestibility (i.e., understanding how lignin cross-links to other wall components).

Materials adapted from Hoards's Dairyman (Nov. 13), Bill Mahanna and Erv Thomas and Dr. Dan Undersander.

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2014 Farm Bill—Dairy Margin Protection Program Sign-Up

Mark Hagedorn – Eau Claire County UW-Extension

UW-Extension conducted 19 Dairy Margin Protection Program meetings with 1,052 participants from 45 counties in collaboration with the Farm Service Agency across the state of Wisconsin during the months of August and September.



What is it?

The 2014 U.S. Farm Bill includes a new, voluntary, risk management tool for dairy farmers called the Margin Protection Program for Dairy (MPP-Dairy). It replaces the Market Income Loss Contract (MILC) program. Participants receive protection when the price difference between the all-milk price and the average feed cost (margin) falls below the \$4 minimum coverage level, for two consecutive months.

- ◇ Farmers can annually decide what level of margin insurance to purchase for additional risk coverage.
- ◇ Base level is \$4 with additional buy-up options at 50 cent increments up to \$8.
- ◇ Farmers annually select between 25-90 percent coverage for their production history.
- ◇ Insurance premiums for the first 4 million pounds of milk are sold at a reduced rate. Additionally, these premiums will be sold at a discounted rate for the first two years of the program.
- ◇ Participants cannot be enrolled in both the Livestock Gross Margin for Dairy Program (LGM-Dairy) and MPP-Dairy.

When?

The registration period began in September and runs through November 28 for the 2014 and 2015 coverage years. Dairy farmers will have an annual opportunity to opt in to the program.

- ◇ Once enrolled, farmers are in the program for the duration of the farm bill.

Where and How?

To sign up, visit your local FSA office where you must provide:

- ◇ An established production history via form CCC-781
- ◇ Payment of the \$100 annual administrative fee and possible payment of any premium (if elected).

Take Note:

- ◇ Dairies must comply with highly erodible land and wetland conservation requirements.
- ◇ The MPP-Dairy program does not apply to the farm bill's Adjusted Gross Income provisions.
- ◇ Dairies enrolled in LGM-Dairy may sign up for MPP-Dairy but the MPP-Dairy will not go into effect until the LGM-Dairy has been cancelled or until after the target month of marketing's.

For More Information:

Contact your local UW-Extension Agriculture Agent. Dairy farmers can also obtain more information on MPP-Dairy at FSA county offices or online at www.fsa.usda.gov; click on Price Support. 2014 Farm Bill information is also available at <http://fsa.usapas.com/>.

2014 Farm Bill—Overview of Crop Commodity Program Decisions

Gary Schnitkey, Jonathan Coppess, and Nick Paulson, University of Illinois

This article provides an overview of the commodity program decisions of the 2014 Farm Bill, thereby provide a context for each decision that must be made. More details for each decision are available on the Farm Bill Toolbox. In summary, the article covers the following: 1) the definition of FSA farms; 2) the three decisions that will be made for each FSA farm; 3) the nature of the decisions that will be made; 4) linkages between commodity program and crop insurance decisions; and 5) payments and Adjusted Gross Income (AGI) limits.

Farm Service Agency—The Farm Service Agency (FSA) is an agency of the U.S. Department of Agriculture. FSA administers commodity programs through local offices located across the United States. Farmers and landowners will go to these offices to make commodity program decisions and sign contracts to enroll in the elected programs.

Farm Service Agency Farms—Decisions will be made for each FSA farm. Each FSA farm has a fixed description, a specific numerical designation, and a fixed number of acres. Over time, FSA farms can change through a reconstitution process. In some cases, landowners combined two or more FSA farms together into one FSA farm. In other cases, multiple farms arise from one FSA farm. Take, for example, one FSA farm that has 240 acres. Suppose 80 acres is sold to another individual. The one 240-acre FSA farm could become two: one for the 80 acres and the second for the remaining 160 acres. FSA rules govern the reconstitution process.

FSA farms that exist as of August 2014 will be used for the commodity program decisions. No reconstitutions can occur now that will affect 2014 Farm Bill decisions. Each FSA farm has a "farm number". This farm number defines the farm for FSA purposes. Farmers and landowners should determine what acres are included in each FSA farm. Many farmers and landowners will have interests in multiple FSA farms. The following decisions will be made for each FSA farm, meaning the decisions for any one farm are not dependent upon the decisions made for other FSA farms.

Farmers and Landowners—Often, ownership and operation of an FSA farm will be split across individuals. There will be a landowner who owns the farm and

a producer who operates the farm. More complex relationships with multiple owners and multiple producers can arise. For the following decisions, landowners will be responsible for specific decisions and producers will be responsible for others. If there are multiple individuals involved in an operation, there cannot be different decisions across individuals. There will be one set of decisions for each FSA farm.

Decisions—There will be three sets of decisions made for each FSA farm. A brief description of each decision is provided in the following sections.

1. Keep or update payment yields.
2. Retain or reallocated base acres
3. Determine program choice for each crop on an FSA farm.

1. Keep or Update Payment Yields

On most FSA farms, there are covered commodities (also called program crops) that have program yields (see chart below). These program yields are on record with FSA and FSA sent the information to landowners and farmers in letter around the beginning of August. Landowners can choose to keep current "program" yields or update those yields. In most cases, actual yields from 2008 through 2012 will be used to update yields, with the updated yield calculated as 90 percent of the average yields in those years.

Program Crops and their Reference Prices (Reference prices are used in Price Loss Coverage)

Program Crop	Reference Price
Corn	\$3.70/bu
Soybean	\$8.40/bu
Wheat	\$5.50/bu
Grain sorghum	\$3.95/bu
Barley	\$4.95/bu
Oats	\$2.40/bu

The keep-or-update yield decision is a landowner decision. Landowners have until February 27, 2015 to make the yield updating decision (see chart below).

Decision	Responsible Party	Deadline
Keep or update yields	Landowner	Feb 27, 2015
Retain or reallocate base acres	Landowner	Feb 27, 2015
Program choice ARC/PLC	Individuals with share of crop	March 31, 2015

(Continued from page 5)

2. Retain or Reallocate Base Acres

Each FSA farm has a set of base acres for the covered commodity or program crop on the farm. The base acres also on record with FSA and sent to landowners and farmers in the above-referenced letter. These acres can be "retained" as they currently exist. Alternatively the distribution of acres across program crops can be updated to the proportion of acres in program crops from 2009 through 2012.

As an example, take a farm with a current allocation of 40 base acres in corn, 30 base acres in soybeans, and 30 base acres in wheat. This farm has 100 total base acres. Reallocated base acres will be proportional to program crop plantings from 2009 through 2012. Suppose that average acres in program crops were 50% in corn and 50% in soybeans. In this case, reallocated base acres are 50 base acres in corn and 50 base acres in soybeans. The reallocation decision will not change total base acres in the farm. It will only impact the distribution of base acres for the program crops recently planted on the farm.

The choice is between two alternatives:

1. Retain current base acres. In the above example, 40 acres in corn, 30 acres in soybeans, and 30 acres in wheat.
2. Reallocate base acres. In the above example, 50 acres in corn and 50 acres in soybeans.

This decision will be made by the landowner and must be made by February 27, 2015.

3. Program Choice Decision

Producers and share rent landowners can choose to receive commodity program payments through one of three programs (see Figure 3). For this decision, a landowner in a cash rent lease does not make the decision for the FSA farm due to the definition of producer, which requires sharing in the risk of producing a crop and in the marketing of any crop produced.

The following are the three programs:

1. Price Loss Coverage (PLC) is a fixed-price price program. PLC payments will be made when the national market year average (MYA) price is below a reference price (see Figure 1 for reference prices) set in the statute; the reference price does not vary across years.
2. Agricultural Risk Coverage at the county level (ARC-CO). ARC-CO is a county-level revenue program that makes payments when county revenue

is below a guarantee. The guarantee is set at 86% of a benchmark revenue that is based on previous county yields and national MYA prices. The guarantee will change over time. There is a per acre limit on ARC-CO payments equal to 10% of the benchmark.

3. ARC at the individual level (ARC-IC). ARC-IC is a whole farm revenue program in that it calculates all program crops on the FSA farm together and provides payments when farm revenue for program crops as a whole falls below a guarantee. Previous farm yields are used to set the benchmark, and the guarantee is also at 86% of that benchmark. There is a per acre limit on ARC-IC payments equal to 10% of the benchmark.

For each program crop, a farmer could choose to enroll a crop in either PLC or ARC-CO. Decisions could be the same or split across crops. For example, corn could be enrolled in ARC-CO and wheat could be enrolled in PLC. If ARC-IC is chosen, however, all crops on the FSA farm must be enrolled in ARC-IC. In addition, if multiple farms are enrolled in ARC-IC, there will be one guarantee and payment rate across all ARC-IC farms.

The above program decisions also impact the availability of Supplemental Coverage Option (SCO). SCO is a county-level crop insurance program administered through crop insurance agents. SCO provides protection for a coverage zone that extends from 86% down to the coverage level of the COMBO product. These decisions will be made by individuals with a share of revenue. If a farm is cash rented, the farmer cash renting the farm has the responsibility of making the decision. If a farm is share rented, both the farmer and land owner are involved in the decision-making. The deadline for making these decisions is March 31, 2015.

Nature of these Decisions

The decisions cannot be changed once the deadline has passed. This means that yields cannot be updated and acres cannot be reallocated after February 27, 2015. Program choices cannot be changed after March 31, 2015.

These decisions will last the life of the 2014 Farm Bill. The 2014 Farm Bill is scheduled for 2014 through the 2018. If extensions are passed to the 2014 Farm Bill, the above decisions will carry forward through those extensions unless the U.S. Congress specifically includes provisions in the extension legislation that allows for decision changes.

(Continued from page 6)

The decisions follow the FSA farm. Suppose a farmer makes a program choice on cash rent farmland and farms the FSA farm in 2014 and 2015. A new farmer then takes over in 2016. The new farmer cannot change the program choice, program yields, or base acres on that farm. The decisions made by the first farmer will carry through. Similarly, selling a farm to a new owner will not change the decisions; the new owner has purchased the program attached to that farm as well as the base acres and payment yields. Program yields and base acres may carry through to future farm bills. History suggests that the elected program yields and base acres could exist for additional farm bills.

There are defaults if decisions are not made:

- ◆ Old program yields will be kept.
- ◆ Base acres will be retained.
- ◆ The program choice will be PLC and payments for 2014 will be forfeited. This default option also applies if all operators on a FSA farm do not elect the same program option.

Linkages with Crop Insurance

A producer does not need to buy crop insurance in order to receive commodity program (ARC and PLC) payments. Also, a producer does not have to participate in a commodity program to be able to buy crop insurance. However, program choice will impact the availability of SCO. SCO will not be available on base acres for commodities enrolled in either version of ARC.

Payment Limits and AGI limits

There are payment limitations associated with commodity programs. Each individual cannot receive more than \$125,000 in total commodity program payments during a year, including marketing loan gains and loan deficiency payments. In most cases, a husband and wife can have separate payment limits together totaling \$250,000. No limit exists for payments made by crop insurance products, including SCO. No payments can be received by an individual with an Adjusted Gross Income (AGI) of more than \$900,000. AGI is calculated using a three-year average of previous taxable year income.

Summary

This article provides an overview of the commodity program decisions that are part of the 2014 Farm Bill. More details on each of these decisions is available via USDA Agriculture Policy Analysis System (APAS) - <http://fsa.usapas.com/>.



Farm Bill Informational Sessions to be Offered

Farmers and landowners will get their questions answered about the crop provisions of the new Farm Bill at Informational Meetings in December. AgStar Financial Services, University of Wisconsin-Extension and/or the USDA Farm Service Agency offices are hosting these free programs. Please contact the host for more information or to register for a program.

- ◆ Tuesday, December 16 from 9—11 a.m. at the Stout Ale House, 1501 North Broadway, Menomonie, WI 54751. Host—AgStar Financial Services, call 866-577-1831.
- ◆ Wednesday, December 17 from 1—3 p.m. at the Edison Town Hall, Hwy MM, Boyd, WI. Host—Chippewa County UW-Extension and Chippewa County FSA. Call 715-726-7950.
- ◆ Thursday, December 18 from 1—3 p.m. at Security Financial Bank in Bloomer. Host—Chippewa County UW-Extension and Chippewa County FSA. Call 715-726-7950.
- ◆ January 20 & 21, Pepin County Courthouse, Durand. Host—Pepin County UW-Extension and Pepin County FSA. Call 715-672-5214.

Information and materials from the sessions held on Tuesday, November 4th in Bloomer and Ridgeland are also available on the Barron and Dunn County UW-Extension websites:

- ◆ <http://barron.uwex.edu/agriculture/>
- ◆ <http://dunn.uwex.edu/agriculture/>

Pregnancy Diagnosis using Milk PAG Testing

Paul M. Fricke, Ph.D., Professor of Dairy Science and Extension Specialist
University of Wisconsin – Madison

Identification of nonpregnant dairy cows early after AI improves reproductive efficiency and pregnancy rate by decreasing the interval between AI services thereby increasing the AI service rate. Thus, new technologies to identify nonpregnant dairy cows and heifers early after AI may play a key role in management strategies to improve reproductive efficiency and profitability on dairy farms. Chemical tests for early pregnancy diagnosis that use qualitative measures of pregnancy-associated glycoproteins (PAGs) originating from the placenta have been developed and commercialized. Because PAGs are produced specifically by the placenta, the presence of PAGs in blood can be used to accurately determine pregnancy status. Currently, three nonpregnancy tests based on detection of PAGs in maternal blood are commercially marketed:

BioPRYN - BioTracking, LLC, Moscow, ID

<http://www.biotracking.com/dairy>

DG29 - Conception Animal Reproduction Technologies, Beaumont, QC

http://www.conception-animal.com/test_an.html

IDEXX Bovine Pregnancy Test - IDEXX Laboratories, Inc., Westbrook, ME,

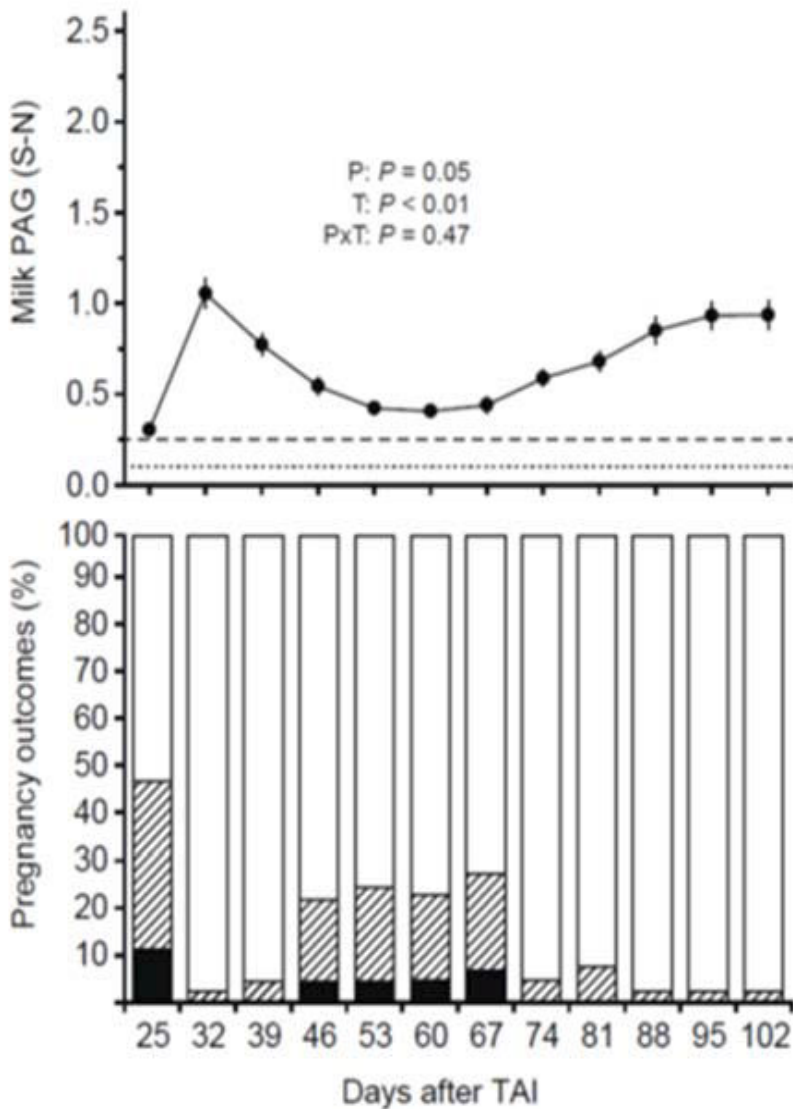
http://www.idexx.com/view/xhtml/en_us/livestock-poultry/ruminant/lpd-bovine-pregnancytest.jsf

None of the tests listed above are cow-side or on-farm, so blood samples must be collected by farm personnel and sent by courier to a local or regional laboratory that runs the assay. Results are then returned to the farm via email, usually within 24 to 72 h.

Recently, IDEXX Laboratories (Westbrook, ME) released a milk PAG test marketed through regional DHIA testing centers throughout the United States. Detection of PAGs in milk samples eliminates the need for drawing blood samples and can be done at the DHIA testing center on the same milk samples sent in for determining milk components and somatic cell score. Because PAGs have a long half-life in circulation after calving, cows must be a minimum of 60 days post-calving for accurate results. In addition, PAGs increase slowly in milk early in gestation, so cows must be ≥ 28 days post-insemination for the milk PAG test to be accurate.

We recently conducted an experiment to characterize milk PAG levels throughout the first trimester of gestation in dairy cows and to assess the accuracy of pregnancy outcomes compared to transrectal ultrasonography (Ricci et al., 2014). A total of 141 lactating Holstein cows were hormonally synchronized to receive their first postpartum timed artificial insemination (TAI). Milk samples were collected 25 and 32 days after TAI, and pregnancy status was determined 32 days after TAI using transrectal ultrasonography. Cows diagnosed pregnant with singletons 32 days after TAI continued the experiment in which milk samples were collected and pregnancy status was assessed weekly from 39 to 102 days after TAI using transrectal ultrasonography. The incidence of pregnancy loss from 32 to 102 days after TAI for cows diagnosed with singleton pregnancies was 13%, and these cows were removed from the data set. Thus, a total of 48 cows maintained a singleton pregnancy from 32 to 102 days after TAI. Mean relative levels (S-N values) of PAGs in milk from pregnant cows are shown in the upper panel of Figure 1. Milk PAGs increased from 25 days after TAI to an early peak 32 days after TAI. Milk PAGs then decreased from 32 days after TAI to a nadir from 46 to 67 days after TAI followed by a gradual increase in PAG levels from 74 to 102 days after TAI.

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To determine the accuracy of milk PAG test outcomes during the first trimester of gestation (Figure 1, lower panel), pregnancy outcomes

based on PAGs in milk were classified based on cutoff levels (dashed lines in the upper panel of Figure 1) specified by the manufacturer. Overall, pregnancy outcomes for pregnant cows reflected the PAG levels in milk. Clearly, testing at 25

days after AI is too early based on the proportion of “not pregnant” and “recheck” outcomes generated for cows that we knew were pregnant. By contrast, milk PAG test outcomes for pregnant cows exceeded 98% “pregnant” outcomes 32 days and 39 days after TAI for cows we knew were pregnant. The proportion of milk PAG test outcomes of “not pregnant” and “recheck” then increased for cows that maintained pregnancy concomitant to the temporal decrease in milk PAGs during the nadir and then decreased as milk PAGs increased as gestation ensued.

Based on PAG profiles in milk samples collected weekly, the best time to conduct a first pregnancy diagnosis is around 32 to 39 days after TAI when milk PAGs are at an early peak in pregnant cows. Because we only collected milk samples weekly, we are not able to determine the earliest day when milk PAG

Figure 1. Upper Panel: Relative pregnancy associated glycoprotein (PAG) levels (S-N values) in milk of Holstein cows from 25 to 102 d in gestation.

Lower Panel: Stacked bar graphs of pregnancy outcomes based on PAGs in milk of Holstein cows from 25 to 102 d in gestation. Based on cutoff values determined by the manufacturer, cows were classified as “not pregnant” (black bars) “recheck” (hatched bars); or “pregnant” (open bars).

testing is accurate, so we recommend following the manufacturers recommendation of ≥ 28 days after AI. By contrast, conducting the milk PAG test during the temporal nadir in milk PAGs from 46 to 67 days after AI would result in a lesser overall accuracy of the test outcomes and the possibility of aborting a few pregnancies if

prostaglandin F_{2α} is administered based on “not pregnant outcomes.” Finally, because of the occurrence of pregnancy loss, all pregnant cows should be submitted for a pregnancy recheck at 74 days after AI or later when relative PAG profiles in milk of pregnant cows have rebounded from their nadir.

Reference

Ricci, A., P. D. Carvalho, M. C. Amundson, L. Vincenti, and P. M. Fricke. 2014. Accuracy of pregnancy outcomes based on pregnancy-associated glycoproteins in milk and serum during the first trimester of gestation in lactating dairy cows. *J. Dairy Sci.* 97(Suppl. 1):694.



Implements of Husbandry (IoH) What You Need to Know

provided by WI Farm Bureau
Federation and UW-
Extension

- ◆ Farm tractors. (Category A)
- ◆ A self-propelled combine; a self-propelled forage harvester; self-propelled fertilizer or pesticide application equipment but not including manure application equipment; towed tillage, planting and cultivation equipment and its towing power unit; or another self-propelled vehicle that directly engages in harvesting farm products, directly applies fertilizer, spray, or seeds but not manure, or distributes feed to livestock. (Category B)
- ◆ A farm wagon, farm trailer, manure trailer, or trailer adapted to be towed by, or to tow or pull, another implement of husbandry. (Category C)
- ◆ A combination of vehicles in which each vehicle in the vehicle combination is an implement of husbandry or in which an implement of husbandry is towed by a farm truck, farm truck tractor or motor truck.

What is 2013 Wisconsin Act 377 (Senate Bill 509) – IOH Legislation?

Nearly \$88 billion of Wisconsin's economy is directly attributed to the success of agriculture so it was essential to update agricultural laws to accommodate the operational needs of the farming community. It was also incumbent upon farmers to protect the investment Wisconsin taxpayers make into our road and bridge infrastructure.

With the modernization of agriculture came a widely-accepted misconception within the farming community that implements of husbandry (IOH) were exempt from any size and weight regulation. This has never been the case. While there has been limited enforcement of road weight limits on farm machinery, this is changing. Several counties own portable scales and may increase education and enforcement activities this year.

An infraction in Marathon County in 2011 brought enforcement of IOH road weight limits to the forefront. The Department of Transportation (DOT), along with the Department of Agriculture, Trade and Consumer Protection (DATCP), UW-Extension and WI Farm Bureau Federation and 18 stakeholder groups, formed the Implements of Husbandry Working Group. They developed recommendations that would give the agricultural community a means to utilize their equipment legally, keep Wisconsin agriculture competitive, and protect the infrastructure by which they move their equipment from farm to field. Senator Jerry Petrowski (R-Marathon) and Representative Keith Ripp (R-Lodi) drafted legislation (Senate Bill 509) based on those recommendations.

What does Wisconsin Act 377 do?

Creates new definitions for 'IoH' and 'Ag-CMV'
"Implement of Husbandry" is defined as - A self-propelled or towed vehicle that is manufactured, designed, or reconstructed to be used and that is exclusively used in the conduct of agricultural operations. An "implement of husbandry" may include any of the following:

Act 377 creates a definition for **Agricultural Commercial Motor Vehicle (Ag-CMV)** so they can comply with federal regulations, yet enjoy the benefits of exclusive agricultural use. These might include the straight bed truck with a box spreader or a feed mixer mounted on the chassis. They have no DOT registration requirement and they fall under expanded size and weight requirements. An Ag-CMV means a commercial vehicle to which all of the following applies:

- ◆ The vehicle was designed and manufactured primarily for highway use and manufactured to Federal Motor Vehicle Safety Standard Certification.
- ◆ The vehicle is used exclusively in the conduct of agricultural operations.
- ◆ The vehicle directly engages in harvesting farm products, applying fertilizer, spray or seeds to a farm field or distributes feed to livestock.

IoH and Ag-CMV height, length, weight and width requirements

Height – There is no limit on height for IoH, but the operator remains responsible for ensuring clearance of all bridges and utility lines that are constructed to the proper height.

Length (IoH) – Length limits are improved for single, two- and three-vehicle combinations. Single vehicles can be up to 60 feet. Two-vehicle combinations can be up to 100 feet. Three-vehicle combinations can also be up to 100 feet if operated below 25 mph or up to 70 feet at a speed greater than 25 mph.

Length (Ag-CMV) – Single vehicles can be up to 45 feet. Two-vehicle combinations can be up to 70 feet. Three-vehicle combinations can be up to 100 feet if operated at a speed below 25 mph or up to 70 feet at a speed greater than 25 mph.

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For both loH and Ag-CMV, if you wish to exceed the length limits a no-fee permit may be required.

Weight – Prior to Act 377 the same weight limits that applied to any other vehicle on the road also applied to an loH. No axle could exceed 20,000 lbs. and the gross vehicle weight (GVW) of any vehicle could not exceed 80,000 lbs. Some exceptions allowed vehicles or vehicle combinations to operate without a permit at weights higher than general statutory limits. For example, from September 1 to December 31, a person may, without a permit, exceed the general statutory weight limits by no more than 15% if they are transporting crops, or transporting manure to or from a farm.

Act 377 creates a new standard and weight chart for loH, allowing for 15% more weight. Generally speaking, the per axle limit is increased to 23,000 lbs and the GVW is increased to 92,000 lbs. Unless otherwise prescribed by a local authority, tillage, planting and cultivation equipment are exempt from the per axle limitation on municipal and county roads. Due to the unique makeup of potato harvesters, they are also exempt from the new axle weight requirement but not the GVW.

Per axle and GVW limits don't apply for "incidental movements" between farm to field and field to field that are less than 0.5 miles, and therefore no permit is required. This also applies to loH and Ag-CMV being operated or transported to and/or from an implement dealer for purposes of delivery, repair or servicing within a 75-mile radius.

The new weight limitations and no-fee permits do not supercede the weight restrictions placed on bridges, Class "B" roadways, and special and seasonal postings unless specifically allowed under the conditions of a permit.

Width - Additional lighting and marking features are included for loH that exceed 15 ft. There is no requirement for permitting based on a vehicle's width.

While operating on a highway the following requirements apply. loH that exceed 15 ft. or that operate over the center line of the road when traveling will be required to add some lights and reflective material, if not already installed as original equipment.

- ◆ Two flashing amber lights visible from the front and back placed 16 inches or less from each side of the vehicle's lateral extremities.

- ◆ On the back, red retroreflective tape placed within 25 inches of the lateral extremities.
- ◆ On the front, two strips of yellow retroreflective tape placed within 16 inches of the lateral extremities.
- ◆ Two red tail lamps (hardwiring is not required).
- ◆ A standard slow moving vehicle (SMV) sign.

During daylight hours, lighting requirements for loH that exceed 15 ft. or that operate over the center line of the road when traveling are not applicable if:

- ◆ The wide loH is accompanied by an escort vehicle with hazard lights activated, and
- ◆ Two orange or red flags are attached to the rear of the loH at the lateral extremities.

An loH in excess of 22 ft., in addition to any lighting and/or marking required must also be escorted by at least one vehicle with hazard lights activated. On two-lane roads the escort is the lead vehicle. On roads with two or more lanes with traffic going in the same direction, the escort vehicle will follow the loH.

No escort is required for "incidental movements" from farm to field or field to field under 0.5 miles. The lighting, marking and escort vehicle requirements noted above do apply if/when an IOH being operated or transported to and/or from an implement dealer for purposes of delivery, repair or servicing is within a 75-mile radius.

With the law in effect, what options are now available to municipalities and counties?

The six options available to municipalities and counties to implement Act 377 are commonly referred to as "Options A through F". Options B, C, D and E require the local government to pass a resolution or ordinance by January 15 to be in effect for that calendar year. The following is a very brief description.

Option A – Local governments still have statutory authority to post roads imposing special or seasonal weight limitations. They can ultimately provide a means for travel on these routes, if they so choose, just as they have in the past via permit, signage, or specific permission expressly authorizing individual loH and or Ag-CMV to be operated on these roadways.

Option B (Total Opt Out) – Local governments can authorize operation of loH and Ag-CMVs with no weight or length limits on any road within their jurisdiction.

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Option C (Partial Opt Out I) – Local governments can set the weight limits above the 23K axle/92K GVW weight table, and increase length limits, on all roads within their jurisdiction.

Option D (Partial Opt Out II) – Local governments can set the weight limits above the 23K axle/92K GVW weight table, and increase length limits, on designated/priority roads within their jurisdiction.

Option E (Opt In) – Local governments require that Category B and all other IoH and Ag-CMV follow the new 23K axle/92K GVW weight table. This is the same requirement when operating on state highways.

Option F – If local governments take no affirmative action, this is the default position and the 23K axle/92K GVW weight table governs roads within their jurisdiction. However, Category B IoH are exempt from axle weight requirements.

How will the state address the permitting process?

If IoH and Ag-CMV operating on state highways exceed the 23K axle/92K GVW weight limits, and/or over-length limitations for single, two-, and three-vehicle combinations, no-fee permit applications to exceed the limits are available at www.dot.wisconsin.gov/business/ag/permits.htm.

Any no-fee permit that is issued by DOT must “automatically renew each year unless there is a material change to any roadway for which the permit applies.”

How do farmers get a permit?

Application for Permit – Depending upon the action a municipality or county may take, any IoH and Ag-CMV that exceeds length and/or weight limits may be required to obtain a no-fee operating permit from the road “maintaining authority” (municipalities, counties or state). The applications will be submitted using a standard form available on the DOT website. The application form will require the applicant to provide, on the form or as an attachment, all of the following information:

- ◆ The applicant’s contact information.
- ◆ Listing/map of potential roadways to be traveled.
- ◆ Identification of the types of IoH and Ag-CMV for which the application is made, the length, number of axles, make, model, and estimated weight of the IoH.
- ◆ The time of year and frequency that these IoH and Ag-CMV are expected to be operated on the roadway.

Denial of Permit – Any denial of a requested route must be issued in writing and must provide a reasonable structurally-based explanation for the denial. A denial cannot be arbitrary. For self-propelled IoH and towed tillage, planting and cultivation equipment, if the only basis for denial is the listing or map of highways, the maintaining authority must modify the application to include an approved alternate route. Route denials may be appealed to a town or municipal board, county highway committee, and if it is a state highway, through the appeals process at DOT. Alternatively, an applicant may appeal directly to the judicial system.

Confidentiality of Permit – With limited exceptions, local and state authorities are required to keep confidential all information provided by an applicant for a no-fee permit and the information is not subject to Wisconsin’s Open Records Law.

Enforcement and Violations

It is the Legislature’s hope that 2014 will be utilized as a time period for extensive education and exposure to the new law. With that in mind, there is a provision in the law that says the state patrol (county sheriff and local police departments are not included) may issue only warnings, not citations, for overweight or over-size violations of farm tractors, and planting, tillage and cultivation equipment that occur between now and January 14, 2015. Be aware that manure application equipment, Ag-CMV and vehicle trains that are overweight or oversize are subject to citations by the state patrol.

With regard to weight violations, the amount of the overweight violation is computed based on the general statutory weight limits (20,000 lbs. per axle or 80,000 lbs. gross vehicle weight) not the new weight allowance that is approximately 15% higher. For example, if you are hauling without a permit at a GVW of 97,000 lbs, you will be fined at 17,000 lbs. overweight, not 5,000 lbs. overweight.

*** It is no longer legal for a vehicle to pass an IoH or Ag-CMV in a no-passing zone if traveling at a speed less than half the posted speed limit.

Effective Dates of the Legislation

Most provisions of Wisconsin Act 377 are currently in effect, with the following exceptions:

- The lighting and marking requirements will take effect **November 1, 2015**.
- The requirement for IOH dealers to disclose gross vehicle weight at point of sale will take effect **January 1, 2015**.

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LOCAL & STATEWIDE CALENDAR OF EVENTS

DECEMBER 2014

- 2** PDPW (Professional Dairy Producers of WI) Business Transition Workshop, Sleep Inn & Suites Conference Center, Eau Claire
- 3** Wisconsin Soybean Conference, Sleep Inn & Suites Conference Center, Eau Claire
- 4** Soil, Water & Nutrient Management Meeting, Clarion Hotel, Eau Claire
- 8** Chippewa Valley Forage Council Board Meeting, 11:30 am, 29-Pines, Eau Claire
- 16** Farm Bill Informational Seminar sponsored by AgStar, Stout Ale House, Menomonie
- 17** **UWEX** Farm Bill Informational Seminar, 1-3 pm, Edison Town Hall, Hwy MM, Boyd
- 18** **UWEX** Farm Bill Informational Seminar, 1-3 pm, Security Financial bank, Bloomer
- 24-25** Christmas Eve and Christmas Day—UW-Extension Closed (County offices vary)
- 31** New Year's Eve —UW-Extension Closed (County offices vary)

JANUARY 2015

- 1** New Years Day—UW-Extension Closed (County offices vary)
- 8** Western Wisconsin Ag Lenders Conference, Stout Ale House, Menomonie
- 8** Wisconsin Agronomy Update Meeting, Clarion Hotel, Eau Claire
- 13-15** Wisconsin Crop Management Conference, Alliant Energy Center, Madison
- 15-17** GrassWorks Annual Grazing Conference, Chula Vista Resort, Wisconsin Dells
- 17** **UWEX** Private Pesticide Applicator Training, Eau Claire County UW-Extension Office, Altoona
- 19-21** Manure Applicators Summit, Wisconsin Dells
- 20-21** Rice Lake Farm Show, Cedar Mall, Rice Lake
- 20-21** **UWEX** Farm Bill Informational Seminar, Pepin County Courthouse, Durand
- 21** **UWEX** Rental Lease Workshop, Dunn County Judicial Center, Menomonie
- 22** **UWEX** Farm Financial Recordkeeping Using QuickBooks Beginner's Workshop, Chippewa Valley Technical College, Menomonie
- 23** **UWEX** Private Pesticide Applicator Training, Security Financial Bank, Bloomer
- 29** Wisconsin Farm to School Summit, Hotel Mead, Wisconsin Rapids
- 29-30** Wisconsin Corn Soy Expo, Kalahari Resort, Wisconsin Dells
- 30-31** Wisconsin Local Food Summit, Hotel Mead, Wisconsin Rapids

FEBRUARY 2015

- 4** **UWEX** Private Pesticide Applicator Training, Dunn County Judicial Center, Menomonie
- 5** **UWEX** Private Pesticide Applicator Training, People's State Bank, Augusta
- 5** **UWEX** AgVentures Grain Marketing and Cost of Production Workshop I, Sleep Inn & Suites Conference Center, Eau Claire
- 7** Winter Garden Seminar, Eau Claire Master Gardeners
- 10** **UWEX Dunn County** Implements of Husbandry (IoH) Update meeting, Menomonie
- 12** **UWEX** AgVentures Grain Marketing and Cost of Production Workshop II, Sleep Inn & Suites Conference Center, Eau Claire
- 11** **UWEX** Private Pesticide Applicator Training, Farmer's Kitchen, Cadott
- 21** Chippewa Valley Master Gardeners "Think Spring" Seminar, Chippewa Falls Middle School
- 24-25** Midwest Manure Summit, Radisson Hotel and Conference Center, Green Bay
- 26** **UWEX** Private Pesticide Applicator Training, Dunn County Judicial Center, Menomonie

MARCH 2015

- 3-4** Eau Claire Farm Show, Eau Claire Indoor Sports Center, Eau Claire
- 5** **UWEX** Commercial Vegetable Growers Meeting, Thorp
- 11** Ag Day at the Capitol, Monona Terrace, Madison
- 12** Red Cedar Conference, Memorial Student Center, UW-Stout, Menomonie
- 13** **UWEX** Private Pesticide Applicator Training, Chippewa County Courthouse, Chippewa Falls
- 13-14** Wisconsin Ag Women's Summit, Madison Marriott West, Madison
- 18-19** PDPW Hall of Ideas & Equipment Show, Alliant Energy Center, Madison