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Chippewa Valley Agricultural Extension Report

Inside this issue:

Farm Input Costs Up	2
Dairy Helps Insulate Farmers from Fertilizer Price Spikes	3
Fall 2021 Cattle Market Situation	4-5
BQA Training	5
Want to Improve Soil Health?	6
Preparing Vegetable Garden for Winter	6
Harvest Season Clean Out	7
Upcoming Ext. Farm Management programs	8
Calendar & Additional Resources	9
Insert: CYFFF program / Vaccination Flyer for WI Farmers	

Happy Holidays!

The Extension Dunn County office will be closed:
November 25th & 26th
December 23rd & 24th
December 31st



Fall 2021

Volume 11, Issue 3

DATCP Announces Details for Wisconsin Farm Support Program

Under the direction of Governor Evers, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and the Wisconsin Department of Revenue (DOR) will provide another round of Farm Support Program direct aid payments to Wisconsin farmers who have experienced economic losses due to COVID-19.

"Our farmers were some of the hardest-hit by the pandemic, but despite facing unprecedented challenges, they never stopped working to ensure grocery stores were stocked and folks had food on their tables," said Gov. Evers. "I'm glad to be providing another \$50 million in direct payments to Wisconsin farmers so we can keep working to make sure our farmers, their families, and our rural communities bounce back from this pandemic."

Beginning on November 1, DOR will send a letter to pre-qualified applicants. In the letter, farmers will obtain information about the program and a Letter ID, which is required to complete the application. These letters will be sent to farmers with at least \$10,000 but less than \$5 million in gross income.

"Last year, during the height of the pandemic, Governor Evers, DOR and DATCP worked to distribute \$50 million in direct aid payments to about 15,000 farmers who applied for the Farm Support Program," said DATCP Secretary Randy Romanski. "As the state continues to bounce back, the Governor is once again investing in our farmers and agricultural economy through direct aid payments."

Eligible farmers should apply online through the Wisconsin Department of Revenue (DOR) at revenue.wi.gov. The application link will be live at 8:00 a.m. on November 8 and will close at 4:30 p.m. on November 29. Farmers who did not receive a letter and believe they qualify, or farmers who cannot apply online may request assistance by calling (608) 266-2772. Spanish- and Hmong-speaking farmers should call DOR at (608) 266-2772 for assistance.

"We understand farmers need continued support as they have worked so hard throughout the pandemic to keep producing and distributing their products to people who need them," said DOR Secretary Peter Barca. "Our staff are ready to assist with the administration of this next round of funding."

Despite the challenges that COVID-19 has presented to the agriculture industry, Governor Evers has continued to make critical investments in farmers, agribusinesses, food processors, and those across the supply chain. These investments range from utilizing federal Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan Act (ARPA) dollars to address challenges in the food supply chain to investments made in agriculture and rural prosperity in the 2021-2023 biennial budget earlier this summer.

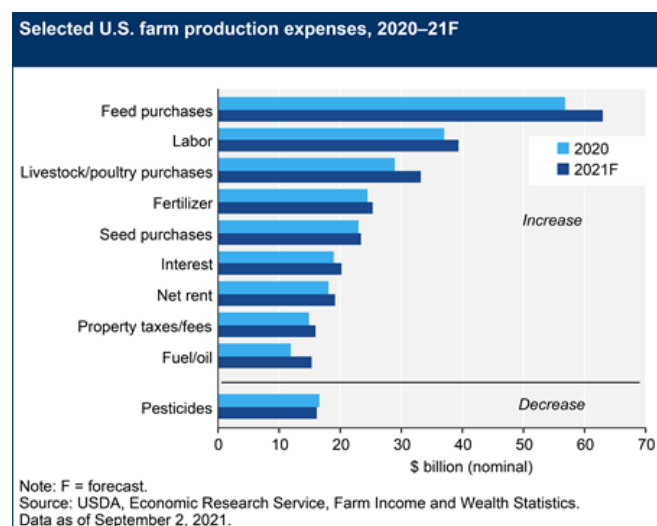
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Farm Input Costs are Up drafted October 14, 2021

By Paul D. Mitchell, Director Renk AgriBusiness Institute, UW-Madison Professor and Extension State Specialist

On Sep 2, 2021 the USDA¹ reported a 7.3% cost increase for the farm sector compared to last year. However, this estimate underestimates current cost conditions and expected costs over the next several months, as there are many cost increases that have yet to work their way through the farm input supply chain.

Feed and labor expenses are the top two cost categories for



Wisconsin dairy farmers. Feed costs are up 11.0% and labor costs have increased 6.6%. Beef farmers face similarly higher feed costs, while costs for buying feeder livestock are up 14.1%. On the crop side, the jump in fertilizer prices has received a lot of attention. The USDA reports only a 3.9% increase, but this underestimates current conditions, as fertilizer costs have continued to increase since Sep 2nd. Some prices have almost quadrupled, noted by Illinois Extension.² Prices have not hit the all-time highs from 2008 but have surpassed the highs in 2011–2014 during the commodity price spike. How high fertilizer prices will go has yet to be seen, with limited supplies expected in some cases.

Machinery costs are also higher for Wisconsin farmers. Tractor list prices are as much as 20% more than 2020, while combine list prices are only up only 7%.³ Used machinery markets have also seen cost increases and limited supplies of key equipment. Supply chain disruptions have created chaos in new and used machinery markets missed by these numbers. New equipment and parts for repairing used equipment are simply unavailable in some cases. Any reported cost increases for machinery miss the opportunity costs of farmer time to search for parts, to make workarounds for unavailable parts, and lost productivity while making repairs.

Corn and soybean crop budgets for 2022 published in August estimated non-land costs had increased 15% for corn and 8% for soybeans.⁴ Even with these cost increases, expected returns

also increased due to high price expectations, but these positive margins could disappear if crop prices decline due to a collapse in exports or domestic demand.

Cropland prices have increased 10% to 15% in Wisconsin the last year.⁵ Higher land prices, along with current high corn and soybean prices, have put upward pressure on rental rates that has yet to be fully realized due to the timing of lease renewals, use of multi-year leases and leasing arrangements among relatives.

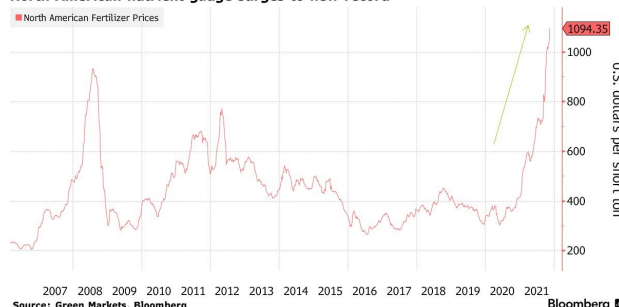
In conclusion, the Sep 2, 2021 USDA report of a 7.3% cost increase is an underestimate. I would put the current cost increase in the range of 15% to 20% relative to a year ago, with more increases likely to come before the 2022 crops are planted.

Update—November 14, 2021

Bloomberg writer Elizabeth Elkin reported that, “Fertilizer prices keep soaring to unprecedented heights, signaling escalating costs for farmers and consumers around the world.” The Bloomberg article⁶ pointed out that, “As fertilizer and other input costs rise, Bloomberg’s Green Markets anticipates American farmers next year will switch 2.5 million acres from corn to soybeans, which is less fertilizer-intensive.”

Fertilizer Frenzy

North American nutrient gauge surges to new record



Mitchell suggests that farmers should buy fertilizer now (for 2022 crop season), as prices will likely not go down and may go up. He notes that even if the price is reasonable next spring, the supply may not be there due to logistics (supply chain disruptions, demand).

¹ <https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-sector-income-forecast/>

² <https://farmpolicynews.illinois.edu/2021/10/a-profitable-harvest-but-farmers-leery-of-rising-production-costs-and-parts-shortage/>

³ <https://farmdocdaily.illinois.edu/2021/10/machinery-cost-estimates-for-2021.html>

⁴ https://farmdocdaily.illinois.edu/assets/management/crop-budgets/crop_budgets_2022.pdf

⁵ https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0821.pdf and <https://www.chicagofed.org/publications/agletter/2020-2024/august-2021>

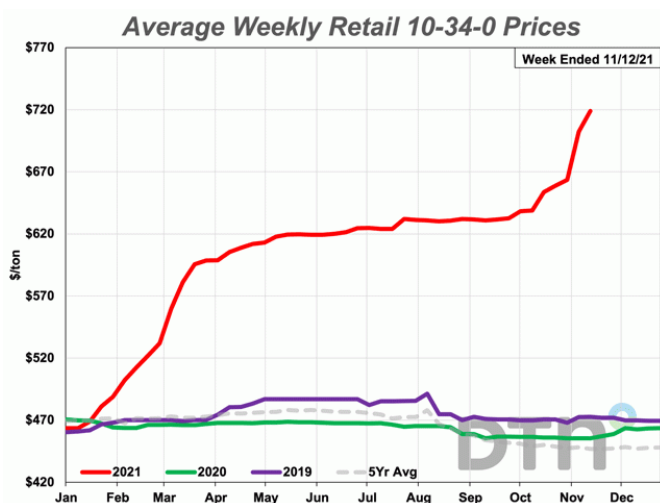
⁶ <https://www.bloomberg.com/news/articles/2021-11-12/fertilizer-prices-rocket-to-new-record-for-second-week>

Dairy Helps Insulate Wisconsin Farmers from Fertilizer Price Spikes drafted October 20, 2021

By Paul D. Mitchell, Director Renk AgriBusiness Institute, UW-Madison Professor and Extension State Specialist

The agriculture news has been dominated by the continuing rise in fertilizer prices. Reported prices for all major types of nitrogen, phosphate, and potash fertilizers increased more than 5% during September.¹

Update from November 17, 2021²: Anhydrous, urea, UAN28 and UAN32 set new all-time highs this week, according to prices tracked by DTN for the second week of November. The average price of 10-34-0, a starter fertilizer for corn, jumped 10% from last month, which is notable because it hasn't seen many double-digit percentage gains during this fall rally in retail prices.



10-34-0 gained 10% compared to last month with an average price of \$719 per ton. The starter fertilizer's price has increased less than many others this year, but it's still 58% more expensive than last year. (DTN chart)

Prices have not been this high in over a decade, though they still have not hit the record highs of 2008.³ Price increases seem to have slowed in the last few weeks, but it is unclear if more increases will come next spring. With current high grain prices and CFAP payments received in 2021, many farmers have been scrambling to buy fertilizer to reduce taxable income and to ensure adequate fertilizer for their 2022 crops. **Given the uncertainty in fertilizer prices next spring and the availability due to supply chain problems, it seems wise to buy at least some of the fertilizer needed for the 2022 crop season now.**

Unlike farmers in many states, Wisconsin's dairy industry helps insulate farmers from these fertilizer price increases by providing manure as an alternative lower cost source of crop fertility needs. USDA NASS data depict the average application rates of nitrogen, phosphate, and potash fertilizer to corn in the thirteen major north central states in 2018.⁴ The plots show that Wisconsin has the lowest average application rate for nitrogen and phosphate among these

states and has a below average application rate for potash. For example, Wisconsin had an average nitrogen application rate of 113 pounds per acre in 2018 for corn, well below the average of 172 pounds per acre in neighboring Illinois. Similarly, the average phosphate rate in Wisconsin was 37 pounds per acre for corn in 2018, while the average rate in Illinois was 108 pounds per acre.

Dairy manure is the primary reason for these low application rates. Most nitrogen fertilizer used in the state is used for corn, yet about one third of corn nitrogen needs are provided by manure in Wisconsin, almost all from dairy.⁵ Other major corn states have large livestock industries, but not relative to the number of corn acres planted each year. Wisconsin farmers annually plant about 4 million acres of corn, with about 1 million used for corn silage, with around 1.25 million dairy cows. The implication is that Wisconsin dairy farmers, who account for a large portion of corn acres in the state, are insulated to some degree from these current fertilizer spikes. However, the insulation effect is not complete and not all the state's farmers will be insulated. Commercial grain farmers in the state without access to manure will not be insulated, nor will potato and vegetable growers and cranberry growers.

Overall, these high fertilizer prices, along with cost increases for most other farm inputs, will reduce farm returns from crop production. But with current expected corn and soybean prices for 2022, most farmers will still enjoy positive margins. Many farms that use dairy manure will be insulated to some extent from these high prices, but not all farmers will enjoy this benefit. Nevertheless, all farmers will find it valuable to look for ways to use manure and fertilizer more efficiently by using soil and manure testing and following university and science-based guidelines.

The UW Nutrient Pest Management program publishes a wide range of nutrient management educational tools and publications that are available for outreach activities free of charge at <https://ipcm.wisc.edu/downloads/nutrient-management>, including Credit What You Spread Card (A3580).

¹ <https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/10/06/fertilizer-price-gains-losing-steam>.

² <https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/11/17/nitrogen-fertilizers-extend-record-0-2>

³ <https://farmpolicynews.illinois.edu/2021/10/a-profitable-harvest-but-farmers-leery-of-rising-production-costs-and-parts-shortage/>.

⁴ https://www.nass.usda.gov/Data_and_Statistics/Pre-Defined_Queries/2018_Peanuts_Soybeans_Corn/.

⁵ See pages 8 to 13 in https://widnr.widen.net/s/lhcsbgkpsl/uw_nitratreport_091521.

Fall 2021 Cattle Market Situation and Outlook drafted October 19 2021

Brenda Boetel, UW Extension Livestock Marketing Specialist and UWRF Agricultural Economics Department Chair

This past year saw the beef cattle industry begin to bounce back from the COVID pandemic and the subsequent implications on supply and demand. Although the cattle market continues to deal with burdensome levels of market-ready finished cattle, strong consumer demand has kept a floor on fat cattle prices. Decreasing feeder cattle numbers, coupled with strong consumer demand for beef, has kept feeder cattle prices relatively high given the high feed costs and lower than expected pen space availability. As the industry prepares for 2022, concerns regarding high feed prices and the impacts on feeder cattle and fed cattle prices remain relevant.

Drought

The northern plains and western third of the United States saw increasing drought conditions through August. Although September has seen some relief for areas of Wisconsin, Minnesota and Iowa, the USDA reported topsoil moisture was at least one-third very short in all midwestern states except Wisconsin, which had only 11% rated as very short. Lingering impacts from summer drought has left 63% of Minnesota's pastures in very poor to poor condition as of September 12. Wisconsin's pasture condition was rated at 60% good to excellent.

The seven states with 50% of the nation's beef cows that calved in 2020 have varying percentages of pasture conditions rated as poor or very poor. For example, Missouri and Oklahoma have only 9% and 19%, respectively, of pastures rated poor or very poor, while Montana and South Dakota have 88% and 81% of pastures rated poor or very poor.

Herd size and cycles

Cattle cycle length is measured by comparing peak (or trough) cattle inventory to peak (or trough) cattle inventory. Cycles can last from 4 to 18 years, with the average at just over 12 years. Each cycle has different phases: a liquidation phase, where cattle numbers decrease, and an expansion phase, where cattle numbers increase. The most recent cattle cycle began expansion in 2015, following 7 years of contraction. The industry began contraction in 2019 with modest liquidation; however, the 2021 drought has accelerated liquidation. Areas hit hardest by the drought are seeing greater liquidation. How large this liquidation will be isn't currently clear and won't be known for certain until 2022. Nonetheless, the sale of lower weight feeder cattle, and percentage of heifers sold helps indicate the extent of liquidation.

For the August to September 17 time period, the percentage of feeder cattle sold weighing less than 600 pounds increased to 60% compared to 59% for the same period in 2020. The relative increase in marketings of

animals weighing less than 600 pounds indicates early weaning, which is a common practice in drought years. Additionally, the larger volumes of lighter animals being marketed are in northern and western regions of the country, where the drought has hit hardest and forage is limited.

The percentage of heifers in USDA's feeder cattle sale reports, sold through auctions, direct sales, and video sales, from August through September 17 is higher this year than 2020. Heifers sold through all venues during this time period were 40% of receipts versus 38% in August 2020. Video and internet sales saw significant increases in heifer sale percentage for this time period, increasing from 35% in 2020 to 38% in 2021. This seven week time period saw the percent of heifers sold that was greater than those seen in the previous drought year of 2012 and similar to those seen in 2010 and 2011. The increase in heifers being sold into the meat supply chain as opposed to being used as replacements is especially seen in the north and west. The increase in heifers being sold is an indication that pastures are exhausted, and hay prices are too burdensome to maintain the herd size.

Regional hay prices also communicate a part of the drought story. California and Oregon hay prices are over \$220 per ton, with some trading close to \$300 per ton. Prices decline when moving further east and south, with areas in the Southeast seeing hay below \$100 per ton. South Dakota saw prices of \$160 per ton for grass hay, while Wisconsin is seeing prices between \$91 and \$131 per ton for Grade 2 and 3 hay.

Although the cattle industry is currently in the liquidation phase of the cycle, and the typical cyclical price pattern would be to expect increasing feeder cattle prices over the next few years, the heightened liquidation will increase the short-term supply of feeder cattle effectively creating a short-term ceiling for prices. On the other hand, the smaller calf crop that has occurred since 2019 will create a price floor for feeder cattle. Where will prices gravitate? As of September 12, calf prices have not seen significant price pressure as Iowa 500-to-600-pound calves sold for around \$180 through most of August and into September. Lighter calves weighing 400-to-500 pounds were still higher in August and early September than they were in June and averaging above \$190 per cwt. in Iowa. Current prices suggest feeder cattle prices will stay toward the top of the price range.

Cattle slides

Calf movement will continue to increase over the next few weeks as the fall run picks up pace. As the calf run increases, the question to consider is what weight calves cattle feeders should buy. Relative weights are the largest

(Continued on page 5)

Fall 2021 Cattle Market Situation and Outlook cont'd from page 4

driving factor for the relationship between light and heavy feeder cattle prices. The normal relationship between different feeder calf prices is for prices per hundredweight to decline as cattle weights increase. Understanding this relationship helps to answer what weight calves should be purchased at. This price slide reflects what it costs to add weight to the animal and is a big indicator for gross margin, or value of gain. For example, for the week ending September 17, Iowa feeder prices indicated that the value of 300 pounds of gain for a 500-pound steer was \$1.17/lb. when sold at 800 pounds. An additional 100 pound gain to a 900-pound ending weight had an average value of gain of \$1.00/lb. for the entire 400 pounds of gain. These prices indicate the value of gain is stronger for gains at the lighter end of feeder weights. A 600-pound beginning weight has a value of gain of \$0.86/lb. for 300 pounds of gain up to 900 pounds, whereas a 450-pound beginning weight has a value of gain of \$1.18/lb. for 300 pounds of gain up to 750 pounds. These values demonstrate that stocker and backgrounder producers currently desire lighter weight animals that provide greater flexibility for adding weight.

Things to watch in 2022

Feeder cattle prices for all weight categories are higher this fall than last. The higher year over year prices are occurring even in states hit hardest by the drought. The lower availability of cattle outside of feedyards, coupled with continued strong demand is keeping those prices high. The question is what will prices look like for heavier feeder cattle in early 2022? Availability of feeder cattle is not going to increase, and in some regions it may decline faster than expected due to the early fall run. The unknown is whether feedyard placements will continue at the previously expected pace.

Labor challenges in the packing industry, as well as other setbacks, have forced lower slaughter numbers. According to CattleFax, there were enough cattle to meet a 523,000 head/week slaughter pace from May through September. Instead, the processing segment averaged only 517,000 head/week in those months, which kept an additional 150,000 head of fed cattle on the front-end, thereby keeping feedyards fuller than expected. If cattle feeders slow placement rates due to higher numbers of cattle remaining on feed than expected, there will be some additional short-term pressure on feeder cattle prices, but this should be limited.

May to July 2021 saw smaller feedlot placements compared to 2020, however year over year comparisons are hard given the implications from COVID in 2020. Forage availability is the biggest challenge for western stocker cattle. Many of these operations will likely not have adequate forage this winter. As a result, the heavyweight feeder cattle supply for spring may be tighter than anticipated as lightweight animals will likely be placed directly on feed this winter. If heavyweight feeder cattle prices remain stable and if the producer has adequate forage available, there is some potential for profit from stocker cattle this winter. Producers need to analyze their own costs and revenue potential. Wisconsin Extension has some decision tools available that may aid in the decision process.

Projections at this time suggest that feeder cattle prices will stay higher than last year's levels, with 500-600 pound animals showing a 9% increase year over year in prices, and 700-800 pound animals having a 10% increase in year over year prices. For the first half of 2022, heavy weight feeder cattle will continue to see 10% higher prices than 2021, while lighter weight animals will show a more subdued year over year increase of only 3.5%.

Beef Quality Assurance (BQA) Training Being Offered in Wisconsin

BQA does more than just help beef producers capture more value from their cattle. BQA also reflects a positive public image and instills consumer confidence in the beef industry. When producers implement the best management practices of a BQA program, they assure the cattle they sell are the best they can be. Today, the stakes are even higher because of increased public attention on animal welfare. BQA is valuable to all beef and dairy producers because it:

- Demonstrates commitment to food safety and quality.
- Safeguards the public image of the beef and dairy industries.
- Upholds consumer confidence in valuable beef products.
- Improves sale value of marketed beef cattle.
- Enhances herd profitability through better management.

How can you become certified? BQA certification can be done online or by attending an in-person training organized by Wisconsin's Beef Quality Assurance Coordinators. Visit [BQA.org](https://www.bqa.org) for the online courses. You can select from the type of production that best fits your farm – cow/calf, stocker/backgrounder, feedyard or transportation.

Farmers can also become certified by attending an in-person training. Meeting dates and registration details available at <https://www.beeftips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form/>

Dairy farmers: The national dairy FARM program can help dairy producers manage their operations in ways that will insure quality milk as well as produce beef that will meet consumer expectations. All dairy producers that complete a FARM 3.0 evaluation are BQA equivalent. For more information on the FARM program visit: <https://nationaldairyfarm.com/>.

Want to Improve Soil Health? Start with Minimizing Erosion

Steven Okonek, UW-Madison Division of Extension Agriculture Educator, Trempealeau County

Soil health is something we hear a lot about these days. Cover crops, soil health tests, diversity in crop rotations, and reduced compaction are all ways to improve soil health. While it is true, cover crops and diverse rotations can improve soil health and tests to measure progress are good, there is some low hanging fruit that farmers may be missing when it comes to improving soil health.

Minimizing water soil erosion is a way to improve soil health that does not require a large investment in equipment, time, and seed. Erosion damages soil health in two ways. First and most obvious is by thinning the horizon, or topsoil by soil erosion and exposing less productive subsoil. Second, and possibly the most destructive way soil health is impacted is by raindrop impact and running water sorting soil components and degrading soil by leaving behind less productive components.

The process of erosion is a multi-step process that starts with rain impacting bare soil. Rain impacts with the force of a small bomb exploding and such force can destroy soil structure at the surface. Soil is thrown into the air and when the soil particles fall back to earth, the particles are suspended in water. Sand, silt, clay, and organic matter are separated from one another in the moving water. The heavier sand settles out of the soil water solution sooner than the lighter clay and organic matter. Silt particles fill pores at the soil surface as silt

settles out forming a crust, reducing the ability of the soil to absorb water. Clay and organic matter are the lightest weight of the soil particles and are carried the farthest, often leaving the field and entering surface water. Clay and organic matter have a negative charge associated with them and the negative charge holds soil nutrients for plants to use for growth and development. Loss of clay and organic matter reduces the ability of the soil to supply nutrients to plants. Even small changes in percent sand, silt, clay, and organic matter can impact soil productivity. Sand settling out on the field can bury more productive soils and reduce crop productivity.

Crop residue left on the soil surface acts as a cushion against raindrop splash. Think of crop residue as an airbag for your soil. An airbag will keep you from impacting your vehicle's steering wheel or dash board in an accident. Crop residue will keep the raindrop bomb from exploding on the surface of bare soil. Management of crop residue that leaves the soil surface covered is one of the best ways to improve soil health, whether or not using cover crops. Tillage that buries residue reduces the impact of cover crops and slows or eliminates the improvement of soil health you are trying to accomplish by planting cover crops. Chisel plowing in a cover crop system can reduce carbon and organic matter accumulation in soil by up to 20% according to research in Minnesota. Reducing erosion is the first step to improving soil health.

This article was originally published in Wisconsin Agriculturist Magazine

Preparing the Vegetable Garden for Winter

Lisa Johnson, UW-Madison Division of Extension Horticulture Educator, Dane County

Fall is here, so it's a good time to think about preparing the vegetable garden for winter. There are things you can do now to protect or extend harvest of existing crops and prepare your soil for next year.

Here are some tips for existing crops:

- Tomatoes are very frost-sensitive. They can be harvested green if frost threatens and ripened in closed paper bags indoors. Don't refrigerate them; this affects flavor.
- Light frost makes spinach, Swiss chard, broccoli, Brussels sprouts, kale and collards sweeter, so you can wait a little to harvest them. You can use small hoops covered by clear plastic or even a large, clear plastic bin with the sides mulched with straw to protect these crops into winter (at least for a time if not all winter)
- Winter squash, sweet potatoes and pumpkins tolerate light frost but not a hard freeze. Cure them in warm dry conditions after harvesting. Check out this link for more information on vegetable storage.
- Asparagus ferns can be left up or cut back just slightly. Over winter, if left on, dead ferns catch snow and keep the soil cooler, protecting crowns and delaying premature spring spear emergence, shielding them from frost damage. However, if you've had asparagus beetles, which can overwinter in the foliage, you should cut the ferns down.
- Mulch in your garlic for winter
- Cut rhubarb back for winter
- Removing diseased or infested material now helps prevent problems in spring. 'Clean' material can be shredded and tilled into the garden to increase organic matter, or composted.
- Keep good records, or take digital photos so you know what you planted where. This helps you rotate vegetables from different plant families to different parts of the garden and prevent disease and insect build-up. There should be a 4 year rotation between families. If your garden is too small to rotate crops and you have regular and/or severe disease issues, consider growing some plants in pots using bagged potting soil.

Harvest Season Clean Out

Kimberly Schmidt, UW-Madison Division of Extension Agriculture Educator, Shawano County

You have most certainly heard of spring cleaning but have you ever heard of harvest cleaning? During harvest this year you may want to take a few extra minutes to clean out your combine before moving between fields. A combine can contain up to 150 pounds of biomaterial and this material often contains weed seeds. Herbicide resistant weeds are a concern that continues to grow in the crop production landscape. Limiting the spread of weed seed between fields is a key part of an integrated pest management system. This is especially important, because the weeds present at harvest were allowed to produce seed and have survived other control attempts during the growing season. These weed seeds, if allowed to spread and germinate, have the potential to become difficult to control elsewhere.

Before cleaning a combine, always read, follow, and understand all safety and operation instructions for the combine and cleaning equipment. Cleaning a combine will produce a lot of dust and debris, thus personal protective equipment is necessary. Wear appropriate work clothes such as long pants and long sleeve shirts or jackets that are not loose fitting. A respirator or dusk mask with a NIOSH rating of N95 or P100 filter size as well as eye protection should be also be worn to protect against dust particles and debris. Cleaning will require a leaf blower or air compressor to blow out all the material so ear protection should be worn.

The 2017 North Central Region Agriculture and Natural Resources Cropping Academy developed the following protocol to clean combines between fields that takes approximately 20-30 minutes.

1. Run unloading auger empty for at least one minute.
2. Open the clean grain and tailings elevator doors, rock trap, and unloading auger sump.
3. Make sure all bystanders are at least 50 feet away
4. Optional: Remove the head/grain platform from the combine prior to self-cleaning
5. Start the combine and separator.
6. Adjust cleaning shoe fan to full speed for maximum airflow and alternately open and close cleaning shoe sieves electronically
7. Adjust rotor to full speed for maximum air suction and alternately open and close concaves
8. Operate the combine this way for at least two minutes for self-cleaning.
9. Optional: Drive over end rows or rough terrain to dislodge material during operation
10. Clean any material left in the rock trap.
11. Use a leaf blower or air compressor to remove material from exterior of the combine, focusing on the head, feeder house, axle and straw spreader at the rear of the machine.
12. Remember to close the doors to the rock trap, clean the grain elevator, and the unloading auger sump.

Another optional step you can take to more thoroughly clean

your combine is to pack around 1.5 cubic feet of wood shavings (livestock bedding) into the sump. Once packed turn on the unloading auger and empty the shavings. Dan Smith, Regional Outreach Specialist for the Nutrient and Pest Management Program, along with Kevin Jarek, Extension Outagamie County Agriculture Educator, produced a detailed how-to video on cleaning a combine.

In 2019, Nick Arneson and Dr. Rodrigo Werle with Wisconsin Cropping Systems Weed Science Lab and Dan Smith, Regional Outreach Specialist with Nutrient and Pest Management Program, conducted a case study where 31 samples of debris from 9 different combines were collected. When these samples were mixed with potting mix and soil, and tended to in a greenhouse, 97% of the samples contained viable weed seeds. The percent of samples with a particular weed seed present is illustrated in the following graph. Additionally, 9 of the 31 samples contained viable soybean seeds, and 15 of the 31 samples contained viable corn seeds.

The combine areas contained the following approximate quantities of total weeds emerged in percentages: head/grain platform samples: 49%, feeder house: 30%, rock trap: 19% and rotor: 2%. Harvest is a busy time of year and you may be pressed for time. If this is the case, the results of this study indicate that prioritizing the head and feeder house of the combine would provide the most impact in reducing weed spread for your time.

A few additional tips on reducing the spread of weed would be to try and remove as many weeds from the field before harvest and consider a location when cleaning that reduces a possibility of the weed seeds spreading. Additionally, harvesting fields that have the least amount of weeds or are the most "clean" before more heavily infested fields will also help prevent the spread of weeds.

Herbicide resistant weeds will continue to grow as an issue for producers. Taking a half hour between fields at harvest to clean your combine could potentially save you time and input costs in the future you would have spent on controlling difficult population of weeds.

This article was originally published in Wisconsin Agriculturist Magazine

Extension to launch Farm Pulse: Financial Management and Analysis, a self-paced online course to make sense of farm financial management

Katie Wantoch UW-Madison Division of Extension Agriculture Educator, Dunn County

UW Extension will launch a new self-paced online course, *Farm Pulse: Financial Management and Analysis* to assist farmers in evaluating their finances, taking the pulse of their farm business, and setting goals for the future of their operation. The course is adapted from Extension's farm management curriculum, AgVentures: Building a Vision.

Farm Pulse: Financial Management and Analysis is a new program for farmers interested in learning how to use farm financials to explore their farm business decisions. This Farm Pulse online course provides the framework for informed financial decision-making.

"It is important during these challenging times for farmers to be proactive about their farm financial management," says Katie Wantoch. "Transitioning curriculum to online in Canvas (UW's learning management software) and making it self-paced means individual farmers or farm families can complete the modules at a time that works best for them and from the comfort and safety of their own homes or offices."

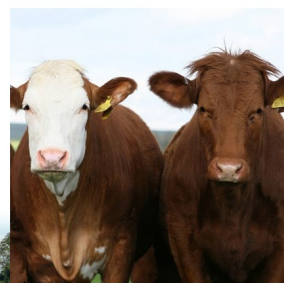
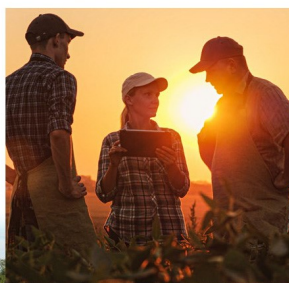
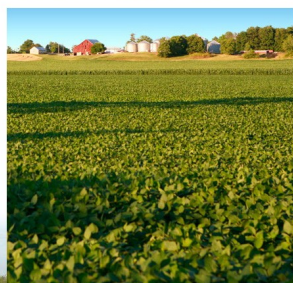
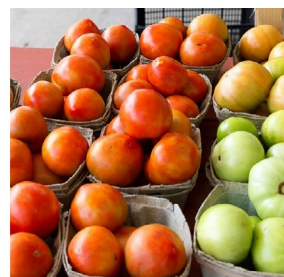
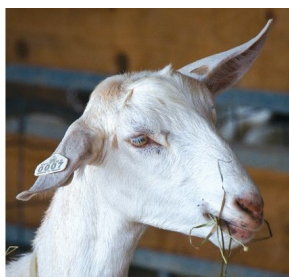
The Farm Pulse: Financial Management and Analysis course will delve into such topics as farm records, financials statements (balance sheet, income statement, statement of cash flow, statement of owner equity), farm financial measures and ratios, and decision-making. Participants can choose

either a dairy or livestock case farm to follow throughout the course, completing hands-on and interactive financial activities.

An introductory session will be held on January 21 during Extension's Farm Ready Research webinar series to review the course and why farm financial management is important for all Wisconsin farmers. Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>.

Additional information can be found at <https://farms.extension.wisc.edu/programs/farm-pulse/> or by contacting Katie Wantoch, Extension agriculture educator in Dunn County, at 715-232-1636 or via email at Katie.wantoch@wisc.edu.

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FARM READY RESEARCH

See the full list of topics at go.wisc.edu/FarmReadyResearch



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Extension

UNIVERSITY OF WISCONSIN-MADISON

Calendar of Events—webinar & educational sessions

December 2021

- 2 Heart of the Farm Coffee Chat: Tax Planning—Best Practices and End of the Year Tips | 12pm—Register at <https://fyi.extension.wisc.edu/heartofthefarm/conferences/coffee-chats/>
- 8 Beef Quality Assurance Certification - St. Croix County Ag & Ed Center, Baldwin | 5:30pm—Register at <https://www.beeftips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form>
- 9 Beef Quality Assurance Certification - Chippewa County, Eagle's Club | 9:30am—Register at <https://www.beeftips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form>
- 9 Beef Quality Assurance Certification - Barron County Extension, Barron | 9:30am—Register at <https://www.beeftips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form>
- 17 Farm Ready Research: Agriculture Pricing, Leasing, & Contracts | 11am — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>

January 2022

- 6 Heart of the Farm Coffee Chat | 12pm—Register at <https://fyi.extension.wisc.edu/heartofthefarm/conferences/coffee-chats/>
- 7 Farm Ready Research: Farm-gate Economic Outlook | 11am — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>
- 11 Farm Ready Research: Animal Care Starts with the Calf | 1pm — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>
- 11 Farm Ready Research: SWA, A New Year, A New Ewe Perspective | 7:30pm — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>
- 21 Farm Ready Research: Farm Pulse Program, Make Sense of Financial Management | 11am — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>
- 25 Farm Ready Research: Diving Into Dairy Data Projects | 1pm — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>
- 28 Farm Ready Research: Don't Gamble the Farm Away, Take Charge of Your Future Today! | 11am — Register at <https://extension.wisc.edu/agriculture/farm-ready-research/>

Cultivating Your Farm's Financial Future program offered by Extension and DATCP Farm Center in 2022

Are you a farmer that is considering transferring to the next generation? Or someone who is considering slowing down and not sure what their next steps should be? The Cultivating Your Farm's Financial Future program provides information and a framework to help you make plans about your farm's future while also giving you tools to reduce stress. This FREE & CONFIDENTIAL program will run from January - April 2022 with an introductory online meeting scheduled on Friday, December 10 to meet other participants, program facilitators, and learn more about the program.

By the end of the program, you will:

- Gain a sense of financial decision-making control
- Make key decisions about their farm and its future
- Reduce stress levels

For more information or to register, visit <https://go.wisc.edu/09jly3>, contact: Katie Wantoch, katie.wantoch@wisc.edu, or Joy Kirkpatrick, joy.kirkpatrick@wisc.edu.