

Agricultural Newsletter

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



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2014

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UW-Extension and WITC Team Up to Offer Irrigation Workshops

Wednesday, March 26

Advanced – Spooner AM

Beginner – Rice Lake PM

Otto Wiegand

Area Agricultural Agent

Burnett, Sawyer & Washburn Counties

University of Wisconsin-Extension and Wisconsin Indianhead Technical College (WITC) welcome you to two workshops on irrigation that will be held in the area on Wednesday, March 26. Presenters will be Dr. John Panuska and Scott Sanford, M. Engr., from the Bio-Systems and Engineering Dept. at UW-Madison, and staff from WITC. Workshops are free of charge.

Spatial variation in soil water retention and rainfall patterns across Wisconsin has resulted in the increased use of irrigation and an increase in new system installation. Concerns have been raised over adequate groundwater availability and the impacts of irrigation on groundwater quality, thus making optimal water use and soil water management a priority.

Advanced - For those who own irrigation systems and want more advanced training, attend the Spooner Ag. Research Station workshop from 9:00-11:45 AM. Topics to be covered include Irrigation Testing, Monitoring and Energy Usage; Irrigation Water Management which includes scheduling, soil moisture monitoring; and using the WISP 2012 Irrigation Scheduling Program.

Beginner - An afternoon workshop for beginners will be held at WITC in Rice Lake from 12:30-3:30 PM. It will cover the Basic Parts of An Irrigation System; Water Management; Groundwater Reserves; and the WISP 2012 Irrigation Scheduling Program.

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Spooner, WI 54801
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www.cals.wisc.edu/ars/spooner
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Post-Secondary Scholarships Available!

Students who volunteer to work at the Community Ag Association Dairy Breakfasts (Polk & Burnett Counties) may be eligible for post-secondary educational scholarships. Contact Grant Burdick for details: 715-327-8861.

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54806.

Crop Information Applications for Android and Apple Devices

Phil Holman
Superintendent
Spooner Ag Research Station

In February I attended a meeting in Chippewa County on Agronomic Applications for Android and Apple Devices. In the sessions, we downloaded and worked through sites to answer common crop questions.

This workshop had a handout that listed various computer information sites: http://ipcm.wisc.edu/download/pubsPM/App_Table.pdf. The IPM toolkit was one that I found particularly useful: <https://itunes.apple.com/us/app/ipm-toolkit/id504685615?mt=8>. Another useful location is the University of Wisconsin Extension Learning Store Website. <http://learningstore.uwex.edu/Farming-C3.aspx>.

With Apple devices, you are able to save the Publication A3646 Pest Management in Wisconsin Field Crops to iBooks simply by going to the following address: <http://learningstore.uwex.edu/Pest-Management-in-Wisconsin-Field-Crops2014-P155.aspx>. Choose "View the Pdf" (button part way down the page), and choose "Open in iBooks."

Regional Cow-Calf Meeting Features Beef, Hog and Crop Farm

Trade Lake / Grantsburg, Weds, April 2, 5-9 PM

Otto Wiegand
Area Agricultural Agent
Burnett, Sawyer & Washburn Counties

Be sure to attend this year's regional cow-calf meeting on Wednesday, April 2, from 5:00-9:00 PM, in southwest Burnett County and sponsored by the UW-Extension Livestock Team. The meeting will be held at the Lucky Oats Farm, owned by Jim and Patty Melin, located at 21071 Melo Drive. From Hwy 87 south of Grantsburg, go east on Cty O and then right or south on Melo Drive. From Frederic, take Hwy 48 about seven miles to Cty O, go west almost two miles, then turn left or south on Melo Drive. Watch for the signs.

The Melins raise 20 beef cows and 100 feeder steers. Cattle are mainly Limousins being crossbred with Black Angus, and a few Herefords. The Melins raise 400 hogs of Yorkshire, Hampshire and Duroc origin. They also grow 2,000 acres of corn, beans and hay. The program begins at 5:00 PM with a farm tour followed by supper and program at 6:00 in the heated farm shed. Topics will include: Cow-Calf Industry Outlook, Managing Pastured Cattle Health Concerns, Calving Issues with Beef, and an Update on Wolves and Other Predators. Speakers will include two state Extension Specialists, a Grantsburg veterinarian, and a USDA/APHIS wildlife biologist.

Please register in advance by Monday, March 31. The cost of the program is \$10 for the meal. For registration or information, contact Otto Wiegand or Kevin Schoessow at UWEX-Spooner, 800-528-1914 or 715-635-3506.

Silvopasture - Should You Graze a Woodlot?

Adapted from Mike Demchik (2009), Univ. Minnesota (now at UW-Stevens Point), Rick Schossow and Howard Moechnig, Minn. USDA NRCS, and Don Sirucek, Minn. Farmer

According to the National Range and Pasture Management Handbook, 60 million acres of private forestland are grazed in the United States. For years the conventional wisdom among foresters has been that you need to keep the cattle out of the woods if you want to raise high quality trees for timber production.

There's no question that uncontrolled cattle grazing can tear up a perfectly good woodlot in short order, especially with thin-barked trees. Trees such as white and burr oaks and some pines are far more adapted to withstand grazing than trees such as aspen and birch. With reported aspen pulp stumpage at \$30 per cord (or higher), not taking care of your trees is just bad business sense. This publication is not necessarily intended to promote opening new woodlots to uncontrolled grazing. Rather, it is intended to promote sound management of woodlots that are already grazed.

Benefit to the Trees - Management of woodlots can increase the value of logs to be sawn into lumber (sawlogs) dramatically. Most woodlots have more poor quality trees than good ones. This is particularly true in woodlots that have been degraded by overgrazing, high-grading (removal of the best logs in one or more logging jobs over the years), or invasive species such as buckthorn. In these woods, often as much growth (or more) is added to the poor quality trees as to the good ones. If a landowner can focus the growth on the good quality trees and eliminate the poor trees, the overall value of the sawtimber that remains will be higher at the final harvest. This technique is called "crop tree management."

Crop tree management is particularly well suited to farm woodlot owners. Because crop tree management involves harvesting a lot of poor quality trees, this system produces a high volume of waste wood. While for some forest landowners this can be inefficient, many farmers have a ready outlet for this wood, right in their homes. For many farmers, burning fuelwood for heat has been a way of life for years. Directed cutting of firewood that removes the competition from well-formed, potentially high-value trees, can be a productive and sensible approach. A landowner with a well-stocked woodlot may be able to set

up crop tree management on two or three acres a year and have more firewood than needed to heat a normal sized house.

In addition, there may be a place for livestock in vegetation management for new plantations. Some work with conifers has shown that grazing after candling is complete (the time of new bud emergence and growth) can reduce weed competition with lower levels of damage to trees. For hardwoods, this is ill-advised, because the leaves of many hardwoods make fair to good forage. Damage by rubbing may be far more detrimental to small trees than direct consumption. This damage will be reduced as trees increase in size and as the number of grazing days is reduced.

No good recommendations can be made for the minimum size of tree when starting grazing because this is heavily dependent on the site, species of trees, breed and type of livestock and other factors. A producer may be able to graze sheep in a Scotch pine plantation when the trees are very young, however, a goat grower may not be able to range goats on any stand without significant damage because goats have very different consumption patterns.

A Short Description of Crop Tree Management -

Crop tree management is very similar to thinning carrots in a garden. If you leave too many carrot seedlings, you end up with many scrawny carrots and few nice ones at the end of the season. It works the same way with trees. Crop tree management is a technique developed to generate high-value sawlogs. This makes your woodlot more valuable and increases the financial return from your trees. This technique usually does not apply very well to pulpwood production. In crop tree management, as few as five to more than ten trees per acre can be selected as candidates.

Crop trees are the best trees in the woodlot. These are the trees that will be kept in the forest to grow in size and value. This does NOT mean that a landowner cuts all of the other trees, but instead means that the crop trees get special treatment that is not given to the others. A crop tree is usually a long-lived and desirable species, straight and tall, free of obvious disease, free of defects, especially large wounds, and in the uppermost canopy layer (in a dominant or co-dominant position). When selecting crop trees, it is important to note that the tree does not need to be large, just in the upper canopy. Some of the biggest gains in value can come from trees that are 6–10 inches now, but will be 12–14 inches or more at the final sale.

After the candidate trees have been selected, the trees that are directly competing with them are removed. This

usually means trying to release the crowns of the crop trees from competition on three or four sides. After the treatment, the crowns of the crop trees should be separated from adjacent trees by about 15 feet. This will allow the tree to grow with much less competition and to put on much greater volumes of high-value new wood. These few, really good quality trees usually hold most of the value in the stand when cut for sawtimber. In areas in which trees often blow down, it may make sense to release the crop trees more slowly (for example, open the canopy on only two sides at first).

Benefits to the Forage - Unmanaged forests tend to produce limited amounts of forage for cattle. Typically, this forage is composed more of forbs, shrubs and tree seedlings and less of grasses. Those grasses that do grow in unmanaged forests tend to be lower-yielding cool-season grasses. In a project done in Cass County, Minnesota, the wild forages consisted primarily of hog peanut, Canada bluegrass, Canada bluejoint, Kentucky bluegrass and various other grasses, sedges and forbs.

We currently have no recommendations for forage seeding or interseeding in this type of system. In the Cass County project, we introduced no new species and did no fertilization or other treatments. However, if no grasses are present, we recommend a seeding of annual or perennial ryegrass. This will provide some cover and forage and will act as a nurse crop for other grasses.

Crop tree management increases forage production because much more light makes it to the forest floor. In the Cass County study, crop tree management increased forage production by four to five times. Total yield for the first year of the study was 735 lbs/acre for the crop tree managed plots and 172 lbs/acre for the unmanaged plots.

The relative feed value and protein were not affected for the early summer clipping (relative feed value of 140 and 132, for managed and unmanaged plot respectively, and protein of 15 and 16 percent, respectively, making both Grade 1 forage). For late season clipping, feed value was much higher in stands with crop tree management (114 for the managed plots and 62 for the unmanaged plots) while protein levels were similar (10 and 9 percent, respectively). In addition to the financial benefits described above, these findings indicate that crop tree management also yields a benefit in forage production.

Conclusions - For those that are already grazing a woodlot, crop tree management can increase yields of

both forage and high-value saw logs. To gain the maximum benefit from this system while reducing the impact of the grazing on tree health, it is best to use a rotational grazing system. If a producer is hoping for high-value timber, anything but tightly controlled rotational grazing is counterproductive. The grazing period should be limited to six days or less. Livestock should be removed when the residual stubble height is two inches. If the primary goal of the producer is forage, a portion of the woodlot should be cleared for pasture. The key is finding the right level of grazing. Rotational grazing has been shown to increase usable forage production from the same land consistently in pasture and would be expected to function similarly in grazed woodlots. Combining rotational grazing with management of the woodlot for increased value of both forage and wood can make good sense, especially in the case of existing grazed woodlots.

Cold Temperatures & Alfalfa

*Adapted from Dr. Dan Undersander
UW-Extension Forage Agronomist*

There is concern about whether the harsh cold has impacted alfalfa and hay fields. Concern always arises in cold periods over winter about the effect of the low temperatures on alfalfa winter survival. The alfalfa plant will die if exposed to cold enough temperatures.

Alfalfa generally survives the winter and its periodic cold spells. The reasons are: 1) Alfalfa can survive temperatures of 10 to 15°F. 2) This is the temperature of the crown, not the top-growth. 3) As little as 4 inches of loose snow will insulate against up to 16°F of air temperature. 4) The crown is insulated by soil as well, therefore the crucial temperature is the temperature at 2 to 4 inches below the soil surface.

According to TELVENT weather data, the soil temperature of bare ground at 4 inches on Jan 8 (after one of the cold spells) is generally in the single digits above 0°F for Wisconsin. Polk and Barron Counties averaged 8°F. The higher temperature than the air is due to the insulating ability of the soil. However, soil temperatures at 2-4 inches under the 4 or more inches of snow is generally 28 to 30°F, well above the temperature likely to cause injury to alfalfa.

This situation should indicate little to no injury or kill of alfalfa from the cold spells this winter. That's not to say if after this recent snow melt at the beginning of March, we receive more bitter cold temperatures, that we are completely home free. As long as snow on alfalfa and hay ground maintain a level of insulation, any late coming cold spells should not prove damaging.

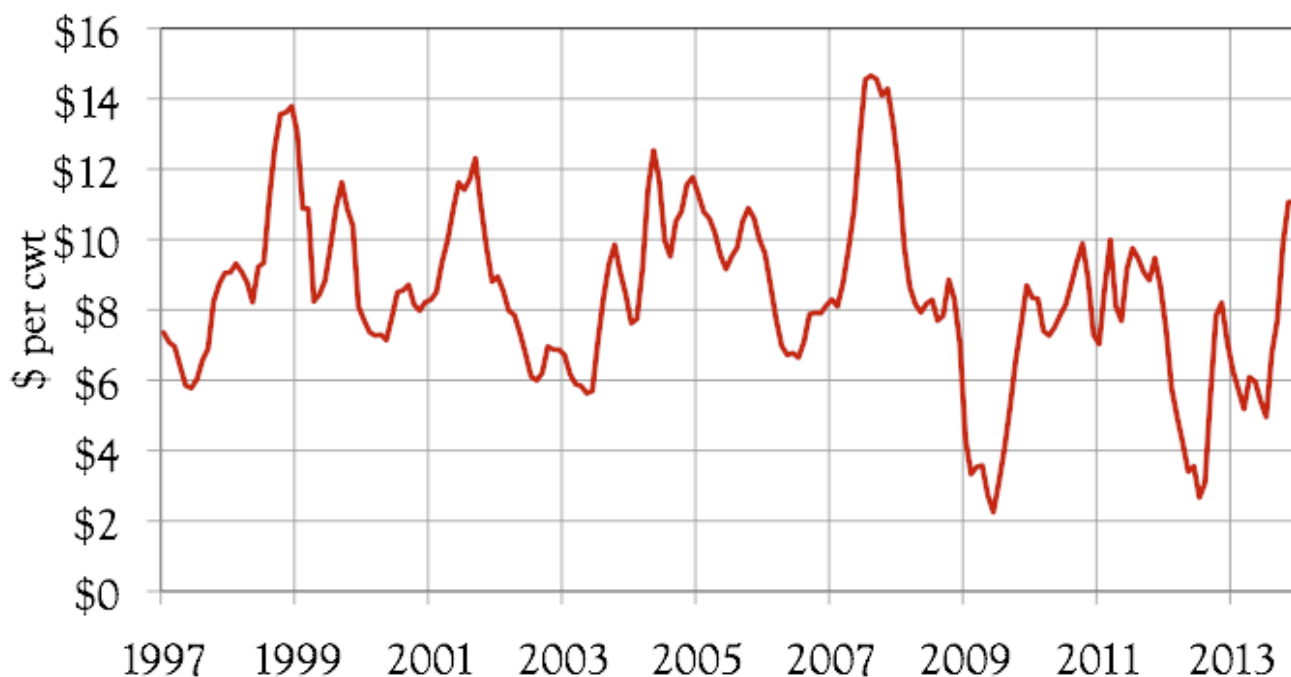
Dairy Margin Insurance Provisions of the Agricultural Act of 2014

*Dr. Mark Stephenson
Director of Dairy Policy Analysis, UW-Madison*

The Agricultural Act of 2014 was signed into law on February 7, 2014 but it will still be several months before USDA has written the implementation rules and the new programs become active. For dairy, the new Margin Protection Program (MPP) is the most important piece of the legislation.

Congress has indicated that they want USDA to make the MPP active before September 1, 2014. When the MPP is operational, the Milk Income Loss Contracts (MILC) is terminated. Livestock Gross Margin for Dairy (LGM-D) remains an alternative for dairy producers in the new farm bill, but producers must choose between LGM-D or the new MPP—they cannot participate in both programs.

The MPP will be run by the Farm Service Agency (FSA). MPP acts as an insurance product to protect producers against low milk over feed cost margins. The margin is calculated as the difference between the U.S. All Milk Price and a ration value that is calculated to produce a hundredweight of milk from an average yielding cow (including the complement of youngstock, dry and hospital cows). The graph shows a historic margin calculation which has averaged about \$8.50 over this time period.



Farms will have a production history (PH) which is the highest annual amount of milk produced in 2011 through 2013. A farm’s PH will be increased annually by the average national increase in milk production. A farm can protect between 25 and 90 percent of their PH in 5 percent increments each year. They can also choose to protect a margin level from \$4 to \$8 in 50¢ increments. The choice of percent and level will be made annually.

Premiums are paid based on the amount of milk covered and the level of coverage. The first 4 million pounds of PH have lower premium costs than milk covered above 4 million pounds of PH, but there is no volume limit on the PH. In 2014 and 2015, the premium on the first 4 million pounds of milk will be further discounted by 25 percent for coverage levels below \$8. There is also an annual fee of \$100 regardless of the coverage chosen. The table shows the premium costs.

Coverage Value in \$/cwt of PH marketings	Premium ≤ 4 M lbs. PH (\$/cwt)	Discounted Premium ≤ 4 M lbs. PH (\$/cwt)	Premium > 4 M lbs. PH (\$/cwt)
\$4.00	\$0.00	\$0.00	\$0.00
\$4.50	\$0.01	\$0.01	\$0.02
\$5.00	\$0.03	\$0.02	\$0.04
\$5.50	\$0.04	\$0.03	\$0.10
\$6.00	\$0.06	\$0.04	\$0.16
\$6.50	\$0.09	\$0.07	\$0.29
\$7.00	\$0.22	\$0.16	\$0.83
\$7.50	\$0.30	\$0.23	\$1.06
\$8.00	\$0.48	\$0.48	\$1.36

Indemnities will be paid whenever the average margin falls below the coverage level. Average margins will be calculated 6 times per year for Jan-Feb, Mar-Apr, May-Jun, Jul-Aug, Sep-Oct, Nov-Dec time periods.

USDA will also invoke a Dairy Product Donation Program whenever the two-month average margin falls below a \$4 level. Under this program, the Secretary will purchase dairy products at prevailing market prices and distribute them to public and private non-profit organizations. This is additional demand is meant to bring market prices up in a shorter length of time than would otherwise occur.

Producers will need to consider their own farm’s risk exposure and level of protection desired. The MPP will offer attractive premium rates to protect against low margins periods. The Dairy Markets and Policy group will have a decision tool available on the website <http://dairymarkets.org> in April so farms can evaluate the appropriate strategy.

Emergency Forage Cover Crop Tips

Adapted from Nick Schneider, former Winnebago County Agricultural Agent

There are many reasons a farmer might consider planting cover crops. These reasons include: reducing soil erosion, increasing soil health by encouraging earthworms and soil microorganisms, loosening soil through extensive root systems, suppressing weeds, fixing nitrogen for next year’s crop, scavenging left over nutrients so they do not leach into groundwater, and providing additional forage. Regarding the weather from recent seasons, many farmers are looking to grow new forage sources in anticipation of feed shortages.

Some points to consider if you are going to plant cover crops for emergency forage:

1. Granted, there is often a drought period in August, but statistically averaged, August can have the third highest monthly precipitation. Based on historic weather data, on August 1, 40% of Growing Degree Days and 30% of growing season precipitation remain.

2. Start by sourcing seed early. Depending on time of year, inventories of some cover crop species or specific varieties do run low.

3. Old standbys such as oats, oats/peas, or even barley (if oats are unavailable) are viable options for growing another 1 to



3 tons/acre dry matter in summer. Oat variety matters. There is a planting date interaction indicating value to selecting a forage type oat or at least a late maturing oat when the forage cover crop is established during late summer. For more information, summaries can be found online at: <http://www.extension.umn.edu/ces/crops/covercrops/covercropsForage.htm>.

4. Millet, sorghum, sudangrass, and sorghum-sudangrass are a better fit when planting in late June or early July, but these plants grow slowly

once temperatures drop in the fall. A tip sheet can be found online at: <http://www.uwex.edu/ces/crops/uwforage/SorghumsFOF.htm>.

5. Forage radish and forage turnips are options for grazing livestock/heifers. There is enough time for establishment of the Brassica forages in August. Do not graze milking dairy cows on forage radish because of off-flavor milk concerns. Top growth and root size becomes smaller as these are planted later. Forage radish has grown very well planted after winter wheat, however, it struggles to develop a huge taproot when planted after corn silage harvest. These cover crops show considerable potential but this note is meant to remind growers to have realistic expectation about root size as planting is delayed after corn silage harvest. A tip sheet can be found online at: <http://www.uwex.edu/ces/forage/pubs/brassica.html>.

6. Red clover frost seeded into winter wheat can be alternative late season forage after wheat is harvested with the bonus of nitrogen fixation. A research summary by can be found online at: http://ipcm.wisc.edu/download/pubsNM/RedClover_0109.pdf.

7. If your feed supply will be tight coming out of winter, you can plant winter rye after corn or soybeans for early harvest the next spring. If you can't find winter rye seed, winter triticale and winter wheat are forage options. This practice can cause delays in spring planting which has the potential to lead to yield reduction in the following crop. A research summary by can be found online at: http://ipcm.wisc.edu/download/pubsNM/Rye_090507_final.pdf.

(Continued on back page)

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.

Mar 26, Weds, 9-12, Irrigation Advanced Seminar, Spooner Station - (see article).

Mar 26, Weds, 1-4, Irrigation Beginner Seminar, Rice Lake - (see same article).

Mar 27, Thurs, 1-4, SNAP+ Nutrient Management Training, Spooner Station.

Mar 29, Sat, Horse Expo, Superior – Mariner Mall. Join horse owners and enthusiasts from around the region for this annual expo. At 1:00 PM Jane Anklam, Agricultural Educator for UW-Extension Douglas County, will offer a presentation on selecting the right hay for your animal. She will describe how to take a forage sample and what to look for in the quality and nutrition of the hay you fed your horse. Hay producers are encouraged to attend. Contact Jane Anklam 715-395-1363.

April 2, Weds, 5:00-9:00 PM – Cow-Calf Seminar, Trade Lake / Grantsburg (see article).

April 8, Tues – Protecting The St. Croix Annual Conference, UW-River Falls – University Center, contact John Haack 715-635-7406.

Late April, Date To Be Announced – Sustainable Living Fair, LCO College, Hayward – contact Amber Marlow, 715-634-4790, x156.

May 10, Sat – Prairie Fling Festival, Hunt Hill, Sarona – contact Anna DeMers, 262-352-3299, or Nikki Nelson program@hunthill.org

June 14, Sat, Noon-4 PM – N. Wis Beef Producers Picnic, Spring Valley – Jeff Bock Farm contact & registration Lori Lyons, 715-237-2746 / 715-210-0049.

June 14, Sat AM – Washburn County Dairy Breakfast, Spooner – Fairgrounds.

June 14, Sat AM – Burnett County Dairy Breakfast – location to be determined – contact Grant Burdick for details 715-327-8861.

June 23, 24, 26, Mon, Tues & Thurs – Tractor Safety Training, Spooner Station – for youth aged 12-17, contact Lorraine, Otto or Kevin at UWEX-Spooner, 715-635-3506.

June 21, Sat AM – Sawyer County Dairy Breakfast, Hayward – Fairgrounds.

Aug 12-14, Tues-Thurs – Farm Technology Days, Stevens Point, WI – Blue Top and Feltz Family Farms, Portage County.

8. Mixtures provide both above and below ground diversity. The classic oat-pea mixture has a dense root profile.

9. Alternative legumes including chickling vetch, hairy vetch, crimson clover, berseem clover, Austrian winter field pea, and Sunn hemp grew well with impressive root nodulation when planted in late May. However, large amounts of feed tonnage are unlikely to accumulate from these plants after this point in the season. If new legumes are tried on your farm, please be sure to inoculate them with the correct Rhizobium inoculant.

10. Look back at the field's herbicide history. There may have

been soil applied residual herbicides sprayed within the last two years that can create herbicide injury from persistence plus feeding the forage from fields with these residues may be an off-label use. UW Extension Publication A3646 Pest Management in Wisconsin Field Crops has a table that provides planting intervals for rotational crops.

11. Crop insurance policies and double cropping can create some problems. If crop insurance is not on the primary crop, then this issue may not be of concern. But if crop insurance policies are used, double cropping may put coverage in jeopardy.

Follow up with the crop insurance provider.

12. Fertilizer can help push the growth of pastures and forage cover crops. In many cases, 40 to 60 pounds / acre nitrogen will increase yield when applied in August, with precipitation. Nitrogen rate should be adjusted to the needs of the plant species. UW Extension Publication A2809 Nutrient Application Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin provides nutrient application guidance.



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Kevin A. Schoessow

Kevin Schoessow
UWEX Area Agricultural Agent