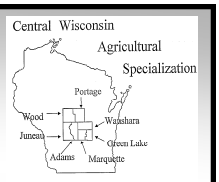
Central Wisconsin Agricultural Extension Report



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Farm Year-End Tax Management

By: Ken Williams, Waushara County

There has been a lot of time and space devoted by the press lately to the fact that commodity and dairy prices this year have been at record or near record levels. As a result of these high market prices, there will be many farmers with higher than average levels of farm income for 2011. Higher levels of overall farm income makes it imperative that agricultural producers take a serious look at year end tax planning. This should be done sooner rather than later.

Tax planning now will allow a wider range of options which may enable a producer to reduce his overall tax liability. Holding grain for sale until 2012 will reduce income levels in 2011 but if prices remain high could cause a similar problem for taxes in 2012. Fall application of lime or fertilizer will serve to increase expenses in 2011 and reduce expenses in 2012. Another option is to prepay for fertilizer or seed to be used in 2012.

There are some limitations as to the amount allowed. For 2011 business investment incentives are continued with bonus depreciation and expensing options. The 50% bonus depreciation was increased to 100% for qualifying property purchases September 9, 2010, through December 31, 2011. The 50% bonus depreciation will be available for 2012 purchases. The $500,000 Section 179 expensing deduction is extended through 2011, and then decreases to $125,000 in 2012 and $25,000 thereafter. To qualify for the additional first-year depreciation, the property must be new when purchased and meet date of purchase requirements. The expensing option makes equipment purchases appear to be a good move with additional income.

Farmers need to be cautious, however, as there are many cases where producers have become overly optimistic with a good year and have lost site of the fact that bad years usually follow. It may be better to pay off some of the current farm mortgage or machinery debt rather than incur additional debt for new purchases. Each producer's tax position is unique and decisions should be made after careful assessment of their own situation.

Every year farm producers see a variation in income due to changing prices for what they produce and for the cost of inputs they must purchase. Producers who locked in grain prices earlier when they were at high levels will have a higher income than producers who need to market their crops at harvest when prices are normally lower.

In order to effectively manage what you pay after filling out all of your tax forms, you need to know where you are as far as income and expenses. This means a producer should be sitting down now to do an estimate of income and expenses. If a producer is in the high income area there are ways to manage that income to reduce the overall year-to-year tax liability. A net operating loss can be carried back 5 years and then carried forward up to 20 years.

There are trade-offs between the value of tax savings from deductions for income and self-employment tax purposes in one year versus those deductions being spread over several years. Reducing taxable income will reduce your tax liability but it can also affect your future social security benefits as a result. Lower income reduces your self-employment tax and consequently your benefits when you should retire. Depending on your situation you may find it beneficial to pay a higher tax now and then receive higher retirement, disability, and death benefits in the future. Finally, work with a knowledgeable accountant or tax preparer who is aware of the latest changes in tax law and how it affects your business.

Managing Dairy Replacement Cost
Matt Lippert, Wood County

21.67- the August Class III milk price is a new, all-time record, for many; it also represents the biggest milk check ever received! Unfortunately it isn't possible to keep all, or even most of it. Feed prices and other inputs as a ratio are up even more. Ponder further that with ample inventories of dairy product and being positioned at the high end of the price cycle, an adequate margin looking forward may be very hard to maintain. One area to consider is the investment in replacement heifers.

Herd culling rate has a major impact on the cost of replacements. Consider two herds with high and low culling and death loss in the milking herd and the following other market factors.

Herd A: 38% Culled and 7% Death loss, 45% replacement need*
Herd B: 20% Culled and 5% Death loss, 25% replacement need*
Cull Cow valued at $650
Replacement valued at $1,500
23,000 pound marketed milk per cow

* Death loss includes non-ambulatory, down cows that can't be marketed.

Herd Replacement Cost per Hundred Head

	Herd A	Herd B
Herd Replacement Cost	$67,500	$37,500
Culled Cow credit	$24,700	$13,000
Net Replacement cost	$42,800	$24,500
Replacement cost per cwt.	$1.86	$1.07

Efforts to maintain herd health such as cow comfort, ration formulation, foot care, vaccination and transition cow management can pay big dividends in replacement management. If the savings in replacement cost realized by herd B was accomplished with a loss in milk production, it would take nearly 10,000 pounds of milk shipped per cow lost before the replacement costs would equal herd A.

While many look at cost savings potential in the rearing of replacements to reduce the cost of replacements, the actual number of replacements needed is a much greater factor. Herd A if retaining its own heifers for herd replacements will probably need to retain all females just to maintain herd size; herd B would be able to elect not to raise over 40% of the heifers born and could select which replacements to raise based on management preferences such as genetic merit or preferred season of the year of freshening. Alternatively herd B could expand from internal growth by 20% per year or realize $30,000 year in marketing of surplus replacements per hundred head of cattle at current replacement values.

A low culling percentage is not the Holy Grail if accomplished by compromising other aspects of herd performance. If SCC, herd mobility, reproductive performance or presence of contagious disease is allowed to be higher in pursuit of a low culling rate the effort may not be worth the savings. In the current environment of high cull prices and low replacement values, animals that need to be culled should be culled. Herd management practices can affect total culling, involuntary culling and herd replacement cost.

High Involuntary Culling Cost Understated

Often herds with higher culling rates do not realize an equal salvage value for their culls as do herds with lower culling rates. In the example modeled, both herds received the same price for a cull cow. A report from a local auction barn recently reported that the top 20% of cull dairy cows brought over $62/cwt. while the bottom 20% were below $48/cwt. On a per-cow basis, the higher priced cows were also heavier, better-yielding carcasses. Dairies may vary by several hundred dollars in the average value of their culls. Foot health and transition management are especially linked to minimizing culls during the first 90 days after freshening. Herds with higher cull rates tend to also cull more during this time when the cows are not likely to be in good condition.

These Fruits Were Made For Walking: Food Miles
By: Nav Ghimire, Green Lake County

Can eating local food improve the environment? Will local food improve the local economy? How does the local food movement affect farmers? The concept of "food miles" argues that it makes economic and environmental sense, when presented with a choice, to buy food which has travelled the shortest distance from farm to table.

The term 'food miles' refers to the distance food travels from the location where it is grown to the location where it is consumed. Studies show that the distance food travels from farm to table has been steadily increasing. Processed food in the United States travels over 1,300 miles, and fresh produce travels over 1,500 miles, before we sit down and eat it. This system has negative impacts on local rural communities and causes a disconnect between consumers and food producers.

The long-distance transport of food is associated with increased fuel consumption and additional green house gas emissions. Greater amounts of packaging are needed to move food over such long distances, and this packaging ends up in landfills. Some measurements show that in America we use ten calories of energy to produce one calorie of food.

Proponents of reducing food miles often suggest that buying local food will reduce the amount of energy involved in the transportation process, as food sourced locally travels shorter distances. Some consumers buy local because they see the added benefits: freshness, better nutrition, and support of local farmers.

It has been shown that local food systems do reduce food miles, which in turn tend to reduce energy consumption, but there are exceptions. Local transportation systems may not always be as efficient as regional systems, depending on the mode of transport and load capacity. For example, if the trucks supplying food locally has a smaller capacity, that may require more trips and logging more miles.

In general, the idea of reducing food miles is good news for producers. Reducing energy costs equates to saving money and consumers who are reducing food miles help to create local markets. For producers, reducing food miles means selling products to a more local or regional market.

As an individual shopper, what role you can play to reduce the food mile and promote local food system? Some of the tips suggested by Brian Halweil (Home Grown: the Case for Local Food in a Global Market, 2002):

1. Learn what foods are in season in your area and try to build your diet around them.
2. Shop at a local farmers' market.
3. Eat minimally processed, packaged and marketed food. Generally speaking, the less processing and packaging you see, the less energy went into production and marketing.
4. Ask the manager or chef of your favorite restaurant how much of the food on the menu is locally grown, and then encourage him or her to source food locally.
5. Limit the amount of meat you consume and when you do buy meat, look for organic or free-range meat produced on sustainable farms.
6. Produce a local food directory that lists all the local food sources in your area, including CSA arrangements, farmers' markets, food co-ops, restaurants emphasizing seasonal cuisine and local produce, and farmers willing to sell direct to consumers year-round.
7. Buy extra quantities of your favorite fruit or vegetable when it is in season and experiment with drying, canning, jamming, or otherwise preserving it for a later date. For example, many local consumers near central district buy bulk of vegetables and fruits from Tri-County Auction House located at Dalton, Green Lake County.
8. Plant a garden and grow as much of your own food as possible. You can also look for community garden offered at your area to produce your own food for you and for your family.

Visit the Central Wisconsin Agricultural Specialization Team on the Web— http://fyi.uwex.edu/cwas/

Winter Feeding Programs for Beef Cows
By: Keith VanderVelde, Marquette County

2012 promises to be a year where hay prices will continue to rise and substitution of grain for hay will not be a good economic decision. The amount and quality for feed required will vary by cow body condition in late fall or early winter. Cows in thin condition in the fall must gain weight throughout the winter to be able to deliver a live healthy calf, provide adequate amounts of milk, become pregnant and produce a calf the following year.

For thin cows to improve cow body condition prior to calving requires a ration of high quality forage combined with some grain. The total amount of feed required to overwinter a thin cow is significantly higher than for an animal in good condition. Therefore, it is important to manage thin cows in early fall to improve their body condition. Weaning the calves from thin cows will help the cows gain weight and give the calves the proper nutrition they need to gain weight in the fall.

Whenever rations contain low quality hay, silage, or straw, or if the amount of feed offered is closely controlled, divide the herd into 3 separate feeding groups. Nutritional requirements for bred heifers, first and second-calf heifers, thin cows, old cows and cows in good condition are all different. In these situations, feed testing and providing a balanced ration to meet each group's needs becomes more important.

Younger mature cows (4-8 years of age) in good condition require the least amount of care to get them through the winter. A maintenance ration will meet their requirements.

Heifers or first and second-calf cows require a higher quality ration. These animals are still growing and do not have the intake capacity of mature animals. These younger animals often have difficulty competing with the mature cows for time at the hay feeder. If extra feed is provided, the older cows typically consume too much feed and become too fat. Most heifer rations contain a better quality hay or some supplemental grain.

If cows cannot be divided into three groups, combine the heifers and the old, thin cows in one group. The extra effort put into the feeding program is often rewarded in improved reproductive performance next breeding season.

Cows in good body condition can be fed poorer quality hay or a straw-hay ration for most of the gestation period. This program could provide significant savings over the winter feeding period.

Mixing straw with medium to good quality hay meets the mid-gestation requirement of a cow. As you get into the closer to calving dates reduce the straw in the ration and switch to better quality hay. Always save the best hay for late gestation and early lactation.

Cows are able to consume a limited amount of straw per day without adversely affecting total feed intake. A cow should not be expected to consume straw at rates higher than 1.25 to 1.5 per cent of body weight per day. When straw is fed at higher levels, the daily feeding of additional grain and a protein supplement are required. Mineral, trace minerals and vitamin supplementation programs are different from that of a traditional mixed hay ration.

In cold weather, the animals' energy requirements increase, the amount of feed consumed increases, and feed passage (through the cattle's' digestive system) is more rapid than in warm conditions. This is a time period where the amount of feed offered to the cow must increase.

Most winter feeding programs for cows require supplemental minerals, vitamins and salt. A fortified trace mineralized salt with selenium should be available on a free-choice basis.

If the rations are mainly a legume or mixed legume-grass hay, the ration should be supplemented with a mineral supplement containing equal parts of calcium and phosphorus. Cattle find some mineral formulations less desirable and typically do not consume them well. Mixing the salt and minerals together or purchasing a product that has pre-mixed the salt and minerals improves overall voluntary intake.

When rations are mainly silage , the ration should be supplemented with a mineral containing two parts of calcium and one part of phosphorus. In many situations, the addition of 2 to 3 ounces of limestone per head per day may also be required to improve and balance the calcium: phosphorus ratio.

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Post-calving requirements for supplemental minerals increases by 25 to 40 per cent depending on the amount of milk the cow is able to produce and the type of ration being fed. After calving, a mineral supplement containing equal parts of calcium and phosphorus is normally the most suitable if a legume hay or legume-grass hay ration is provided. If a grain is being fed at this time, the mineral should be mixed with the grain because cows will not usually consume a sufficient amount of mineral free-choice.

Strategies for Controlling Fertilizer Costs
By: Donald Genrich, Adams County

Over the last five years, fertilizer has become the most expensive component of crop production. Crop budgets show that since 2000, chemical costs have held constant, fuel, interest and other costs have increased some, seed costs have doubled and fertilizer costs have tripled. Fertilizer now accounts for 40 to 45 percent of the variable costs in corn production and 50 to 65 percent of the variable costs in wheat production. What is a grower to do? What strategies can we adopt to get the most out of the dollars spent on fertilizer?

Start by developing a program of soil and plant testing. Soil testing has always been an economically sound practice. On a per acre basis, a standard soil test once every three years costs the same as about one pound of N, P or K fertilizer. As a grower you need a soil testing program that covers all fields, in blocks no larger than 5 acres, at least every 3 to 4 years. If you have high value crops or sandy soils testing every two years is appropriate. Do more than just the standard test. Include a test for sulfur, boron, calcium and magnesium on about one sample out of ten. And then follow through and apply only the fertilizer called for by the soil test.

Do some plant tissue testing on corn, soybeans and alfalfa. It gets you out in the field so that you can really look at your plants. My experience over the last three years shows that tissue testing will help identify deficiencies of sulfur, boron and potassium. Let the plant tell you what nutrients it needs. Evaluate your nitrogen fertilizer program on corn by doing a stalk nitrate test at maturity. When you visually look at the bottom leaves on corn plants at maturity are they still dark green or can you see a little yellow color at the tip and down the midrib of the leaf? If your corn stays totally green until maturity it probably has had excess nitrogen. The bottom leaves of the corn plant should show some slight yellowing within 10 days of physiological maturity. Verify your observations with a corn stalk nitrate test. http://fyi.uwex.edu/grain/files/2010/10/stalk-nitrate-test.pdf

To help you fine-tune your nitrogen applications next year, do a pre-plant or pre-side dress soil nitrate test in the spring. Check out the following publications online or pick them up from your local Extension office. http://corn.agronomy.wisc.edu/Management/pdfs/A3512.pdf http://corn.agronomy.wisc.edu/Management/pdfs/A3630.pdf

Apply more of your nitrogen as a side-dress application to better time the nitrogen with the crops need of it. Consider using slow release forms of nitrogen.

Or, grow some of your own nitrogen by using a three crop rotation of corn, soybeans and winter wheat and frost seeding red clover into the wheat. http://soybean.uwex.edu/documents/RedClover_0109.pdf

Trap any excess nutrients by growing cover crops after the removal of the primary crop, planting winter rye after corn silage harvest is a good example. http://www.soils.wisc.edu/extension/materials/Rye_after_corn.pdf

Consider the value of the fertilizer nutrients in crop residue when you decide the fate of those residues. At current fertilizer prices, the nutrients in a ton of corn stover are worth $25 to $30. Those nutrients will be there for the next crop to use if the residue is not harvested and removed.

It is not good agronomic practice to not apply fertilizer now and hope that prices go down in the future. I don't think fertilizer prices are ever going to go back to the level that they were 10 years ago. There are strategies that we can use to maximize return from the dollars spent on fertilizer. Plan on using some of these techniques next growing season.

Soil, Fertility and Nutrient Management Meetings
December 2-Sparta, December 6-Shawano, December 6-Marshfield

The Department of Soil Science, in conjunction with University of Wisconsin-Cooperative Extension, will again conduct eight Soil Fertility and Nutrient Management Meetings in 2011, albeit somewhat differently this year. The previous eight-day schedule has been condensed to four half-day meetings. Morning sessions will be 8:30 to 11 am (7:30 to 8:30 am for breakfast). Afternoon sessions will be 1:00 to 3:30 pm (12 noon to 1 pm for lunch).

A uniform fee of $25 will be charged at all locations; this includes either breakfast or lunch and all materials. Make reservations with the host agent at least 1 week before the meeting you wish to attend. Certified Crop Adviser CEU credits (2.5 hours Nutrient Management) have been requested.

Discussion Topics: Nitrogen management of small grains and sweet corn (Matt Ruark); Nutrient management for no-till production (Matt Ruark); Wisconsin's improving nutrient management (Sue Porter); Solid dairy manure may reduce P loss after silage harvest (Carrie Laboski); Limitations to plant tissue testing (John Peters); Should corn hybrid selection influence N fertilizer rate decisions? (Carrie Laboski); Variety/hybrid and location effects on soybean tissue and corn grain nutrient composition (Carrie Laboski)

Schedule

Date	Location	Host Agent
Friday, December 2 **Afternoon**	**Sparta** Jake's Northwoods 1132 Angelo Rd., Hwy 121	Bill Halfman, Monroe Co., 14345 County Hwy B, Rm. 1, Sparta, WI 54656 608-269-8722
Tuesday, December 6 **Morning**	**Shawano** Angie's Main Café 132 S. Main St. Parking: Main St. or behind café	Katie Behnke, Shawano Co. Courthouse, Rm. 101, 311 N. Main St. Shawano, WI 54166 715-526-6136
Tuesday, December 6 **Afternoon**	**Marshfield** Marshfield Ag. Res. Stn. 2611 E. 29th St.	Don Genrich, Adams Co., 569 N. Cedar St., Suite 3, Adams, WI 53910 608-339-4237

Determining Silage Bag Capacity
By: Craig Saxe, Juneau County

Are you interested in knowing how much you have in those silo bags behind the barn? According to UW -Extension Engineer, Brian Holmes, one way to estimate this value is to calculate the volume in the bag and multiply by its density. The volume of a round bag is calculated as:

$$V = 3.14 \times (D^2 / 4) \times L$$

where:
V = Volume (ft3)
D = Diameter (ft)
L = Length of silage (ft)

When full length bags are used, the actual length of silage is the bag length minus the unused portion needed to seal each end of the bag. The quantity of dry matter in the bag is the volume multiplied times the dry matter density. The dry matter density can vary from bag to bag and is based on machine type and adjustment as well as forage type. Typical densities range between 11-15 lbs DM/ft3. Table 1 has been developed to show silo bag capacity based on the following assumptions: Round Bags, Silage Length = Bag Length - (2 x Diameter) and Density = 13 lbs DM/ft3.

Use the multiplier in Table 2 to adjust the values in Table 1 for a different density. For example, the

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quantity of silage in a 200' x 9' bag packed to 15 lbs DM/ft3 is: 150,500 lbs DM x 1.15 = 173,100 lbs DM

Table 1 lists dry matter in one bag. If you need to know the capacity in lbs. of silage as fed, divide the table value by the dry matter content. For example, 65% moisture silage in a 200-foot long bag of 9 ft diameter weighs 430,000 lbs AF (150,500 lbs DM/0.35) when packed at 13 lbs DM/ft3 density. Divide this value by 2000 lbs. to obtain total tons.

For additional information or Excel spreadsheets on storing silage go to the UW Team Forage Website at: http://www.uwex.edu/ces/crops/uwforage/storage.htm . You might also want to consider trying the SiloCAP spreadsheet on the Virginia Tech Dairy website at: http://www.vtdairy.dasc.vt.edu/

Table 1. Capacities of Silage Bags at 13 lbs DM/ft^3 Density

Bag Diameter	**8 ft**	**8 ft**	**9 ft**	**9 ft**
Bag Length (ft)	Silage Length (ft)	Capacity (lbs DM)	Silage Length (ft)	Capacity (lbs DM)
100	84	54,900	82	67,800
150	134	88,600	132	109,200
200	184	120,200	182	150,500
250	234	152,900	232	191,900
300	284	185,600	282	233,200
Bag Diameter	**10 ft**	**10 ft**	**12 ft**	**12 ft**
100	80	81,700	76	111,700
150	130	132,700	126	185,300
200	180	183,800	176	258,800
250	230	234,800	226	332,300
300	280	285,900	276	405,800

Table 2. Multiplier to Adjust Table 1 Capacities to a Different Density.

Density (lbs DM/ft^3)	**Multiplier**
11	0.85
12	0.92
13	1.00
14	1.08
15	1.15

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