



The Weekend Farmer

Newsletter for Small Farms in
Southwest Wisconsin

A University of Wisconsin – Cooperative Extension Newsletter

Southwest Wisconsin
Extension Offices:

CRAWFORD COUNTY
225 N. Beaumont, Suite 240
Prairie du Chien, WI 53821-1995
Phone: 608-326-0223

GRANT COUNTY
916 E Elm Street
PO Box 31
Lancaster, WI 53813-0031
Phone: 608-723-2125

IOWA COUNTY
222 N Iowa St, Ste 1
Dodgeville WI 53533
Phone: 608-935-0391

LAFAYETTE COUNTY
627 Washington Street
Darlington, WI 53530-1396

RICHLAND COUNTY
1100 Hwy 14 West
Richland Center, WI 53581-1398
Phone: 608-647-6148

SAUK COUNTY
505 Broadway
Baraboo, WI 53913-2404
Phone: 608-355-3250

VERNON COUNTY
E7410 County Hwy BB, Suite 392
Viroqua, WI 54665-0392
Phone: 608-637-5276

**UW
Extension**

In This Issue:



Livestock Lessons:

Buy the bale or buy the ton? - *Rhonda Gildersleeve - Agriculture Agent, Iowa County UWEX.* A look at purchasing hay, can you save money purchasing by the bale or the ton??

Horticulture Hints



Finding Your Fruit Varieties – *Steve Kohlstedt – Resource Agent, Richland County UWEX.* A look into recommended variety of fruit trees and plans to help with spring planning

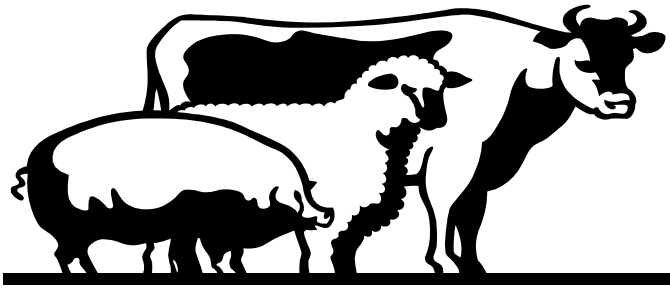
Fall Planting for a Vibrant Spring – guide to planting fall bulbs, from the UWEX info source Website.



Money & Markets

Working With Your Lender – *Joy Kirkpatrick, Outreach Specialist Center for Dairy Profitability.* Learn the 4 C's to credit, and how to establish a working relationship with your banker.

Marketing the Holiday Goodies – *Adam Hady – Agriculture Agent, Richland County UWEX.* Helpful tips on how to make the most out of your roadside stand or at the farmers market.



Livestock Lessons

HAY: Buy the Bale or Buy the Ton?

Rhonda Gildersleeve, Iowa County Ag Agent

Buying hay can be a major feed expense for people owning livestock since it makes up a large part of the diets of sheep, cattle, horses, goats, etc. Here in southwest Wisconsin, we are fortunate to live in an area where hay is readily available. However, our climate is not always ideal for making good quality hay and storage may also be an issue. For limited resource farms, estimating forage needs for your animals, hay quality concerns and pricing are all topics to consider before buying hay.

Before buying hay in quantity, you should estimate the amount of hay you will need for your animals. Intake of forages can be estimated at 2.0 – 5.0 % body weight on a daily basis. This figure varies because animals that are growing or lactating may need a higher forage intake to support those activities than mature animals that just need a maintenance level of nutrients for forages. Likewise, growing and lactating animals may need higher quality forage to produce to their genetic capacity.

Let's use 3% of body weight as our estimator for several species and classes of livestock just to illustrate how to calculate the amount of forage needed per day:

Class of Livestock	Weight, lbs.	Estimated Daily Forage DM Intake @ 3% body wt., lbs.
Dairy Cow	1400	42.0
Yearling dairy heifer	750	22.5
Weaned dairy calf	300	9.0
Beef cow	1200	36.0
Weaned beef calf	500	15.0
Horse	1100	33.0
Ewe	170	5.1
Feeder lamb	70	2.1
Rabbit	6	0.18

To estimate the amount of forage dry matter (DM) needed, next multiply the number of days hay will need to be fed with the estimated daily intake and divide by 2000 to get the estimate in tons. Let's use a weaned beef calf weighing 500 lbs. for our example:

$$\frac{15.0 \text{ lb/day} \times 180 \text{ days}}{2000 \text{ lbs/ton}} = 1.35 \text{ tons dry matter}$$

Because hay is not 100% dry matter, we have to adjust our estimate to an "as fed" basis to account for the moisture in hay. Let's estimate our stored hay at 12% moisture, 88% dry matter:

$$1.35 \text{ tons dry matter} \times 1.12 = 1.5 \text{ tons hay as fed needed for each 500 lb. calf}$$

Next we need to know what the size of our hay "package" is. Dry hay is typically sold as small square bales, round bales, or large square bales. Actual bale size varies depending on the baling equipment used, so a representative sample should be weighed to estimate the package weight for the hay you are using. In our example, we are using 40 lb. small square bales, thus there are 50 small square bales per ton of hay as fed. If we need 1.5 tons per calf, we need to buy 75 bales per calf. Remember that this is a general calculation and you need to fine tune your numbers for your own livestock according

to their needs and the quality of hay you are buying!!

There are several species of forages that can be used to produce hay. In southwest Wisconsin, alfalfa and alfalfa mixed with grasses such as smooth bromegrass, orchardgrass or timothy are the most common types of hay produced. Any of these may be of excellent or very poor quality—it all depends on management of the hay crop: when and how it is harvested, weather conditions, soil fertility, etc. Ideally, alfalfa and alfalfa mixed hays are cut by what we call the “1/10th bloom stage”, when approximately 10% of alfalfa plants have flowers. For very high quality hay, the alfalfa may be cut prior to 1/10th bloom, as often done for dairy cattle. When buying, look for hay that is leafy, has a soft texture, a pleasant odor, and is free of weeds or other foreign matter. Avoid hay that is musty, moldy, weedy, and very coarse in texture. Obtain a forage sample for analysis from hay that you buy, or buy hay that has been tested to determine the amount of nutrients present.

In Wisconsin, forage quality of hay is expressed in terms of crude protein (CP), relative forage quality (RFQ), quantity and digestibility of fibers: neutral detergent fiber (NDF) or acid detergent fiber (ADF). Forage quality recommendations are available for each animal species. In general, forages with less than 70% NDF and more than 8% crude protein contain enough nutrients to maintain mature, non-producing animals. Breeding, lactating, and growing animals will need forages with a higher nutrient content. Consult with your local extension office, or seek assistance with an animal nutritionist through your local feed store, for more information on nutrient requirements of your livestock.

It is usually less expensive to buy hay by the ton (2000 pounds per ton) than to buy a bale of hay at a time. However, factors other than cost may influence whether you are able to buy hay in bulk quantities, including:

- Availability of storage space for large quantities of hay
- How long it takes your animals to use a given quantity of hay

- Your ability to transport and handle the bales
- Your ability to pay for a large quantity of hay at once

For example, if you have two sheep and very little storage area for hay on your property, it makes better sense to buy your hay a few bales at a time, even though it may be somewhat more expensive. Remember that delivery costs are an additional expense of buying hay.

Pricing of hay is another question often asked. Don't be afraid to pay for good quality hay because it is relatively inexpensive compared to other feeds. For example, although \$100 per ton seems like a high price, it is only \$ 0.05 per pound, whereas a 50 lb. bag of grain at \$10.00 per bag costs \$0.20 per pound. Buying good quality hay makes any supplements you feed go farther.

In summary, estimate the amount and quality of hay needed for your livestock, consulting with available expertise as needed and buy hay in a form that you can store and handle. Here are some additional resources for more information:
UW Extension Resources on hay and related topics:

UW Forage Research & Extension website:

<http://www.uwex.edu/ces/forage/>

UW Animal Science Extension website:

<http://www.uwex.edu/ces/animalscience/>

UW Team Forage website:

<http://www.uwex.edu/ces/crops/teamforage/>

UW Extension Publications:

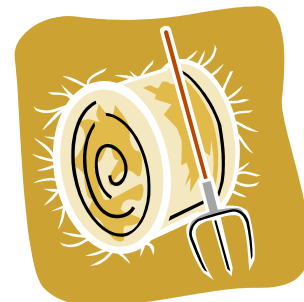
<http://cecommerce.uwex.edu/>

A3772 Buying Horse Hay

A2309 Sampling Hay, Silage and Total

Mixed Rations for Analysis

A2387 Rations for Beef Cattle





Horticulture Hints

Fruit Cultivar Selection

By: Steve Kohlstedt, Richland County
UWEX Resource Agent

When a person purchases a piece of rural property, many times they are looking for ways to expand their returns from that investment. Most rural properties have old orchards. These areas provided farmsteads will a great source of fruit or drink in the cold days of winter. A fifty year old Standard Apple tree, may produce some fruit, but they generally do not product “marketable” fruit. So it would be much wiser and more profitable to start with a new planting.

Choosing a cultivar is one of the most important decisions in a establishing a fruit crop planting. Unproven and untested cultivars are often a costly and discouraging gamble. Some cultivars are relatively rare and must be ordered from specialized nurseries. It always recommended at cultivars be purchased from a reputable local garden center or a nursery.

In Wisconsin, we do not recommend planting peaches, nectarines, sweet cherries, Japanese plums, European grapes, boysenberries or winter-tender cultivars of other fruits. These crops lack the hardiness to survive Wisconsin’s winters. Temperatures below -15 will kick fruit buds. Over a period of time, woody stems and trunks of tree will be winter injured, leading to disease susceptibility and eventually to early death. Apricots in particular bloom very early in the spring, which leads to loss of fruit buds and blossoms to spring frost.

Apples by themselves are unfruitful. Plant at least two compatible cultivars to provide for cross pollination and adequate fruit set. These are the Apples we recommend for Wisconsin: **Lodi** is a very early, large, light green or yellow apple with tart, tender flesh. It is best for pies or sauce. Lodi is very susceptible to Fire Blight and tends to yield biennially. Fruit matures about the second week in August.

Earligold is an early Golden Delicious-type apple. It is medium sized with fine, firm flesh and a pleasing sweet tart flavor. Earligold stores for 3-4 weeks.

Jerseymac is an early ripening, red McIntosh-type apple. It has excellent flavor for fresh use. This apple will store for 2-3 weeks. Jerseymac is very large and susceptible to fire blight and scab.

Paulared is another McIntosh-type apple. It is a high quality, medium size fruit with bright red skin and white flesh. This fruit does not store well. The tree is hardy but very susceptible to fire blight.

McIntosh is the most popular apple in Wisconsin. It is very good for fresh use, baking and sauces, plus it stores very well. It is very susceptible to scab. Spur-type strains such as **Macsipur, Spur McIntosh** or **Marshall McIntosh** are similar varieties.

Cortland is a very good quality fruit. It has tender flesh and is slow to brown. Cortland’s are good for fresh use and baking. The tree has a weeping, willowy growth habit and is winter hardy. Red sports such as **Redcort** are suitable.

Honeycrisp is a long stemmed, large fruit with a red blush over a yellow background. The flesh is exceptionally crisp and juicy with a mild sweet flavor. The fruit will stay crisp even after storage. The tree is moderately vigorous and upright in its growing habit. Honeycrisps is winter hardy.

Spartan is a highly colored, medium sized fruit with solid dark red blush. The flesh is firm, crisp, white, and juicy. Its quality is very good for fresh use and cooking. Trees are medium sized and hardy.

Empire is a high-quality, McIntosh-type red apple. It has firm, crisp, and juicy flesh. This apple is good for fresh use. It stores well for 3-5 months. Empire trees are productive and medium sized, with a spur type growth habit.

Regent is a medium-sized red fruit. Its skin is tough, but its flesh is crisp and juicy. The flavor is mild and sweet. It is excellent for fresh use and cooking. The tree is moderately hardy.

Red Delicious is a large full-red fruit. Its flesh is light yellow, crisp, and juicy with a sweet distinctive flavor when it ripens. Red Delicious is a late maturing fruit and may not reach optimum quality in Wisconsin.

Jonagold is a large fruit that is similar to Golden Delicious. The skin is yellow with a red blush on the exposed side. The fruit stores well and is used for apple desserts. The flesh is a creamy yellow with an outstanding sweet flavor. Jonagold is a triploid apple and will not pollinate any other cultivars. It is moderately hardy.

Golden Delicious is a medium to a large fruit, light-yellow at maturity. The flesh is tender, juicy, and light colored with outstanding flavor when mature. The fruit shrivels rapidly in low-humidity storage-conditions. The tree is medium in size and marginally hardy.

When growing pears in Wisconsin, you need to plant at least two cultivars to produce cross pollination and adequate fruit set. Most pear varieties are susceptible to fire blight. Dwarf varieties of pear are not winter hardy in Wisconsin, so we must grow large trees (Old Home X Farmingdale 333 is recommended). Recommended cultivars:

Parker is a good quality, medium to large fruit, but does not store well. It is moderately hardy.

Bartlett is the standard commercial pear in North America. It is moderately winter hardy, but adapted to widely varying soil and climatic conditions. This pear is very susceptible to fire blight. The fruit is medium to large with melting flesh. Good for fresh use and canning. Red skinned strains, such as Red Sensation, are also available but are not suitable pollinizers for Bartlett.

Gourmet is a yellow to yellow green, medium sized fruit. This cultivar combines the crisp flesh found in Asian pears with the sweet, rich flavor of European pears. Refrigerated fruit will keep several weeks. The trees are medium in size. This variety is tolerant of fire blight.

Patten is medium to large yellow fruit, which is very slender and juicy. It has excellent dessert quality and unacceptable for canning. It is moderately tolerant to fire blight.

Luscious is a medium to small fruit variety. Its flavor is similar to Bartlett but sweeter. It is a very hardy tree. Luscious is considered moderately resistant to fire blight.

Flemish Beauty is a very good quality fruit, juicy, and tender with fair keep quality. Timely harvest is a requirement for this variety to prevent over ripening. This pear is susceptible

to both fire blight and pear scab, which seriously reduces the fruit quality.

Tart Cherry cultivars do not require cross pollination to produce fruit: planting on cultivar is sufficient. Birds may decimate the crop before harvest if the trees are not netted.

Recommended cultivars are as follows:

Montmorency is the standard tart cherry of North America. Its fruit quality is moderate.

North Star is the hardiest of all tart cherries. It has small, but good quality fruit. The small compact trees are resistant to leaf spot.

Meteor has a large, bright red, tart fruit. This variety has a medium sized, attractive, very hardy tree. It is resistant to leaf spot.

The last group we will talk about that shows up in most old orchards are plums. There are generally two types of plums the Blue or European plum and the Red (American) Plums. Blue plums do not require cross pollination, but the Red Plums do in order to obtain fruit set.

The recommended Blue Plum cultivars are:

Mount Royal is a very good, hardy blue plum for southern Wisconsin. It has small attractive fruit. This plum is good for fresh use, canning and freezing.

Stanley is a late blooming heavy annual producer. It has good growth habits, winter hardiness and productivity. Its yields are heavier when planted with Mount Royal. This cultivar is excellent for fresh use and processing.

The Red Plum varieties are as follows:

Underwood has round fruit that are medium sized. It has good quality, high yielding fruit. This variety is very hardy. It is excellent for fresh use and preserves.

Alderman has a large burgundy red fruit. This variety was introduced by the University of Minnesota as a very hardy variety. It has excellent fruit quality and is used fresh or in preserves.

Superior has an excellent quality large red fruit. Unless hand thinned this variety tends to overload and produce small fruit. This tree is moderately hardy.

The Red Plum Pollinizer cultivars are as follows:

Kaga has a small to medium fruit. It is good fresh and used in cooking. This tree is small, hardy and productive.

Toka has small to medium sized fruit with sweet, somewhat spicy flavor. It is extremely winter hardy.

For more information concerning recommended fruit cultivars for southern Wisconsin, consult UWEX publication A2582, "Home Fruit Cultivars for Southern Wisconsin". It is available for a small fee from any County UWEX Office in Southwestern Wisconsin or on the Web at <http://cecommerce.uwex.edu/>.



Fall Planting for a Vibrant Spring

Spring-flowering bulbs, like tulips, daffodils, hyacinths and crocus, are the first group of plants to bloom in spring. However, fall is the season to plant spring-flowering bulbs. All too often, we tend to take things easy and before you know it, the ground has started to freeze. Then it's too late for planting bulbs.

Be sure to purchase your bulbs from a reliable dealer. This assures you of vigorous, disease and insect-free bulbs that have been handled and stored properly. If ordering from a catalog, send your order in by late August. Keep the bulbs dry and place them in a shady, well-ventilated location until you are ready to plant. If packaged, unpack the bulbs at least partially to allow good air circulation.

In Wisconsin you can plant spring-flowering bulbs from mid- September until the soil freezes. Plant them early so the plant can establish a healthy root system before the ground freezes. This will assure a quick start in the spring. Bulbs well-rooted in fall can also resist damage from possible heaving during winter thaws.

Although the foliage and flower-bud from next spring's plant is already formed inside the bulb you plant, some attention to the soil will give better results, especially in later years. If the soil

contains considerable clay, mix in compost, peat moss or rotted manure. Organic material can also improve a light, sandy soil by giving it "body" and improving its ability to hold moisture.

The rule of thumb is to plant bulbs at a depth equal to two to three times their diameter. Plant the bulbs slightly deeper in light sandy soils and a little shallower in heavy soils. After planting, bulbs will start to form roots immediately. They need water for this process. Soak the beds thoroughly after planting, six to eight inches deep. The soil around the bulbs should be moist. One good soaking is usually enough, unless there is an extended period of hot, dry weather.

Although spring-flowering bulbs are hardy, you should protect plants for winter. Once the ground freezes in late fall, mulch the soil over the bulbs. Use two to four inches of shredded bark, compost, pine needles or other organic mulch material. This will keep the soil frozen once it freezes, and help prevent freeze/thaw damage. IN the spring when the first leaves appear, remove the mulch. New leaves may rot if you allow them to remain in contact with the mulch.



Money & Markets

Working with your Lender

You don't have to borrow money to start your business, but borrowing money can get you to your dream of a farm much faster than waiting to save up the necessary cash. That means you need to develop a good relationship with an agricultural lender. A relationship with your lender can be an important asset to your farm business regardless of its size.

When you apply for a loan the lender can become an advocate for you to the loan committee. After the loan is approved, the lender has a vested interest in your success and becomes a member of your management team.

So how do you establish a good relationship with your lender? Open and honest communication is a first good step. And the Boy Scout creed of “be prepared” is the second step. If you are envisioning an enterprise that is alternative agriculture enterprise you may have to be even more prepared. You should develop a business plan that outlines your marketing strategy and have resources to support the numbers you use. You may need to be prepared to educate your lender on the potential of your alternative agriculture business.

As you prepare your business plan you should consider the four C’s of credit: collateral, cash flow, credit score, and character.

Collateral: Collateral is the term used to describe assets that secure a loan. It is the security that lenders seek in order to take the risk on loaning you money. Lenders will request your balance sheet to outline what collateral you have. A balance sheet, also called a net worth statement, is more than just a list of assets. You must also include your debts. Lenders calculate financial ratios from the information on your balance sheet and these ratios provide a picture of your equity position. One is your working capital, which are your current assets (cash, savings, checking, products for sale within the year – which could be market animals, harvested crops, etc.) minus your current debts. Current debts are accounts that should be paid in the next year and also the principal and interest on long term loans that must be paid within the year. Working capital, also known as the current ratio, measures how much in [liquid](#) assets a company has available to build its business. In general, farms that have more working capital have more potential to be successful since they can expand and improve their operations. Lenders may want to see a current ratio of 2:1, which means, you should have twice as many liquid assets as you do current debt load. The other ratio that lenders will consider is your debt-to-asset ratio,

which is your total debt divided by your total assets. Many lenders like to see a debt-to-asset ratio of 40% or less. Knowing these are two ratios your lender will be reviewing you can impress your lender by asking what kind of ratios they like to see for current ratios and debt-to-asset ratios.

Cash Flow: The income statement is the financial statement that provides cash flow information to you and your lender. In simple terms, the cash flow is an estimate of your income and expenses you will have during your enterprise season. For example, for a cropping enterprise the expenses will be fast and furious in the spring, with little or no income coming from the enterprise. The income will come in the fall after harvest. The lender will want to know that you have thought through the production cycle of your enterprise. This will tell you and your lender when your income will be lean and you may need that operating loan. It will also indicate to the lender when you’ll be able to pay off the operating loan and the payment for long term debts will be due. Preparing the income statement really will help you prepare for your enterprise, whether you are borrowing money or not.

Credit history: Yes, lenders will review your credit history. They will want to know if you’ve made your payments on time and if you’ve abused credits or credit cards in the past. A free credit history is available to each individual per year. Take the time to review yours before you go to your lender.

Character: In the past, character would have been at the top of the list of the four Cs. Now the financial numbers and ratios are weighted more than if you are from the area or not. Part of this switch is due to the fact that there are fewer small town banks, but even small town banks are businesses and treat small business and farm loans as such. Realizing that this is a business transaction and business relationship, character and attitude can still be a factor in how smoothly your relationship with your lender (and loan application) proceeds.

Putting your time and energy into research, preparation and attitude can pave a lasting and productive relationship with your lender and help you achieve your goal of a successful farming enterprise. Working on your four Cs and developing your financial statements are two steps to securing a loan for your enterprise. These steps are in addition to completing business and marketing plans.



Marketing the Holiday Goodies

As Fall is rolling around the corner, we may have some traditional holiday items for sale. Examples are the pumpkins at Halloween or a Thanksgiving turkey. Perhaps you just have some home raised produce or crafts that you would like to market. Well, here are a few helpful hints to get the most out of your sales.

To start, a common outlet for many of these products are farmers markets and roadside stands. The first thing to consider, when setting up a stand, is visibility. Does your stand look appealing, catch the consumer eye? Does the consumer see you your product in a glance? As potential customers, they want to be able look at a stand and see what is available. Attractive signs also are beneficial in attracting customers to your stand. Signs should include the business name and the type of products you are selling. For example Family Farms sells pasture raised turkeys, so this information should be included on the sign.

Second tip is what makes your product better than the guy next door? What is your selling point? Did you plant a New England Pie or a

Ghost Rider Pumpkin? Just by having the variety name could spark some interest. With this type of marketing strategy also takes some knowledge of the differences between varieties. With our example of the New England Pie variety, it is easy to understand that it is a pie type of pumpkin where the Ghost Rider Pumpkin is a pumpkin that weighs about 10-15 pounds, dark deep orange color with a very dark green handle. These characteristics make a very nice Jack-O-Lantern.

In addition to knowing the varieties and types of products you have, what can be done to add value to your products? A few ideas are developing baskets, kits, or just plain further processing the products. When further processing raw products, be sure that you follow all State guidelines for food safety and labeling. More information on food safety can be found on the Department of Trade and Consumer Protection website at <http://www.datcp.state.wi.us/core/food/food.jsp> or by calling the Farm Center Helpline 1-800-942-2474. These value added practices will take more time, however, can have a substantial gain in your bottom line. When considering a value added, create something that is either easier or more convenient for the customer.

However you make your approach to marketing goods, record keeping makes a world of difference. Good records lead to increased profits in future years. In our pumpkin example from earlier keep records of which variety sold better. This way when you are planning for the next year, you have sales of ghost rider variety instead of just having sales of pumpkins. Also, good record keeping will help provide you with a dollar per area estimate. This will also in helping you decide how much of a product or variety you should plant or produce the next season.

Enjoy the fall harvests and good marketing.

If you would like to receive future issues of this newsletter please fill out the following Survey

Name _____

Spouse's first name: _____

Mailing Address: _____

City, state, zipcode

Telephone number

Email address

County of Residence: _____

Interests: (please check all that apply)

Beef Sheep Pigs Poultry Horses Goats

Rabbits Other: _____

Pastures crops (please list): _____

Fruit trees, grapes, berries Vegetables General Gardening

Food Preservation

Other small farm interests: _____

Comments on our newsletter or other Extension programs:

Optional: please mark the appropriate categories

Homeowner Rural landowner Full time farmer Part time farmer

Government Agency staff Industry/Business Other _____

Would you like to receive this newsletter electronically via e-mail? Yes No

Please return to: Adam Hady
Richland County Extension Office
1100 Hwy 14 West
Richland Center, WI 53581