



The Weekend Farmer

e-Newsletter for Small Farm Producers in
Southwest Wisconsin

A University of Wisconsin – Cooperative Extension Newsletter

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In This Issue:



Livestock Lessons:

Establishing Improved Pastures - *Rhonda Gildersleeve - Agriculture Agent, Iowa County UWEX.* Take a walk through the pasture as Rhonda outlines concerns and practices to establish and maintain a healthy pasture.

Are Goats in Your Future? - *Dave Wachter - Dairy & Livestock Agent, Grant / Lafayette County UWEX.* Learn the basics of the dairy goat industry and if it is for you.



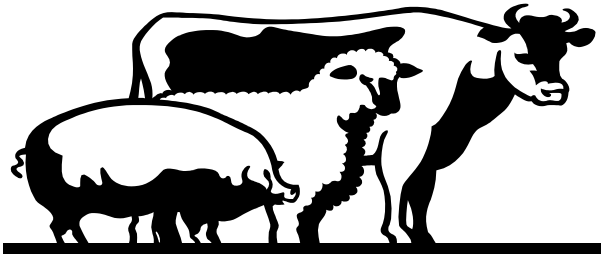
HORTICULTURE HINTS

Wood Mulch and Tree Health – Adapted from: *University of Wisconsin Garden Facts Publication XHT1121X.* Get the answers to the most commonly asked questions about utilizing wood mulch around trees.



Money & Markets

Basic Advertising: A Look to Your Product – *Adam Hady - Agriculture Agent, Richland County UWEX.* Take a look into some basic tips and strategies to product development and advertising.



Livestock Lessons

Establishing Improved Pastures

By:

Rhonda R. Gildersleeve

Agriculture Agent- Iowa County UWEX

Well established and managed pasture is potentially one of the most flexible forage crop options in the Upper Midwest. Pastures are adaptable to any size of dairy or livestock operation, and can provide substantial amounts of quality forage at low cost with good management. Proper establishment and subsequent management will greatly influence production and longevity of improved pastures. Establishment concerns include soil fertility, land preparation, seeding and weed suppression

Assess Soil Fertility

Before establishing a new pasture, take soil samples for analysis from the site to determine if any nutrients are deficient. Be sure to indicate the type of pasture planned for the site so that fertility recommendations are applicable to the species you will be seeding. For more information on soil testing and analysis, please refer to UWEX Publication A 2100, *Sampling Soils for Testing*. Contact your local UW Extension Office for a copy or view it on the Internet at: <http://learningstore.uwex.edu/pdf/A2100.PDF>.

Once the soil analysis has been received, determine the appropriate types and amounts of fertilizer to use. For new pastures, pH may need to be adjusted to at least 6.5 when including legumes in the species mixture to be planted. Soil phosphorus, potassium, and sulfur levels may also need to be adjusted prior to establishment. If possible, apply lime, manure and/or fertilizers prior to any tillage

activities or surface apply during the fall prior to a spring seeding to improve effectiveness and availability of the nutrients applied.

Soils should be tested every 3 or 4 years and additional nutrients applied as needed to maintain fertility levels once the pasture is established.

Seeding Rate

Seeding rate recommendations may vary based on site conditions, method of seeding and the number of seeds per pound for a particular forage species. Under marginal establishment conditions, or when using broadcast seeding methods, it may be wise to increase the seeding rate by 10 to 20 percent. Also, with smaller seeds, fewer pounds are needed to achieve a full stand, so a lower seeding rate is used on small-seeded species. However, small seed require careful seed placement, so adjustments may be necessary to the planting equipment used to produce the desired results.

To decrease chances of soil erosion, a companion crop such as perennial or Italian ryegrass (2 pounds per acre), or small grains such as oats (1 bushel per acre) may also be included with the seeding mixture. For pasture plant species grown in Wisconsin, seeding rate recommendations are listed in UWEX Publication 1525, *Forage Variety Update for Wisconsin*, which is updated annually and is available through your local UW Extension Office or can be viewed on the Internet at: <http://learningstore.uwex.edu/pdf/A1525.PDF>.

When purchasing legume seed, check to see if the seed is pre-inoculated with appropriate rhizobia bacteria and then maintain such seed in cool storage prior to planting. If seed is not pre-inoculated, purchase and apply the appropriate rhizobial inoculant(s) for all legumes that are included in your seeding mixture to ensure adequate nodule development and nitrogen fixation capacity. Keep inoculants stored in a cool dark place until use and follow label application directions.

Planting Times

For Wisconsin, pastures can be established in the early spring or late summer months. Spring planting takes advantage of residual winter soil moisture and the promise of a season of good growing conditions, with potential to provide

pasture later that year. A primary disadvantage of spring seeding is that weed competition is usually greatest in the spring months. This may be an issue for some pasture species which are slower to establish, such as reed canarygrass and kura clover.

Late summer seeding can be scheduled to follow winter wheat, rye, and or spring oats/pea crops that are harvested earlier in the summer. A disadvantage of late summer seeding is that germination will be at the mercy of fall rains to ensure good establishment prior to the onset of winter. This offset by the fact that there are fewer weed species that will germinate and compete with a new pasture seeding. Late summer seeding should be planned to ensure at least 6-8 weeks of forage growth prior to killing frost.

Seedbed Preparation

Seedling pasture stands have two primary requirements of the seedbed:

- A firm seedbed to allow precise placement and good soil contact with small pasture seeds
- Minimal competition from existing vegetation or weeds for sunlight and moisture

Proper preparation of the site is a critical step in establishment. The amount and type of land preparation varies with site and soil conditions, and equipment available for establishment.

Tillage is often the best choice if it can be accomplished with little chance for erosion, since it can be used to eliminate existing vegetation as well as develop an excellent seedbed. Compacted soils may require ripping, and this is best done in the fall when the soil is driest. Plow, chisel, disk, or harrow as appropriate to eliminate clods and firm the seedbed. If tillage is required, some operations can be done in the fall prior to a spring seeding and used to incorporate any lime or fertilizers needed to amend the soil.

If a no-till drill is available, little or no tillage may be necessary, although light tillage (disking) may still be desirable if the ground is rough or uneven. No-till drills open a furrow, place the seed in the opening and press the soil back into place and are particularly suited for areas where soil erosion is a

concern. Prior to using a no-till drill, existing vegetation should be sprayed with appropriate herbicides or grazed very closely to reduce competition with the seedling pasture stand.

Methods of Seeding Pastures

Pastures can be established by drilling, broadcasting, or even aerial seeding. Development of a well-prepared seedbed through tillage followed by cultipacking is still the most consistently successful method of pasture establishment where topography and soil type allows it. While drilling or cultipacker seeder (Brillion seeder) into a prepared seedbed is generally the preferred method, broadcast seeding methods followed by harrowing and/or cultipacking the seedbed have also been successful. Seeding in two directions ensures the most uniform stands, but may not be cost effective or practical for hilly conditions, where machinery safety and potential for soil erosion may also need to be considered.

The goal is to uniformly sow the seed into a firm seedbed at the correct depth and seeding rate. This is most easily accomplished with a drill. The optimum seeding depth for most forage species is ¼- to ¾-inch, with the soil packed firmly around the seed. Some soils are difficult to pack, and new seedlings may fail from drilling into a fluffy seedbed because seed placement is too deep and/or the soil dries too quickly. It is often necessary to use a cultipacker or similar device behind the drill to firm the soil around the seed. If the seedbed was prepared the previous fall, or has received some rain, packing behind the drill may be unnecessary.

Frost seeding is also an option in some situations. Most legumes can be frost seeded successfully, but frost seeding is only recommended for ryegrass (Italian or perennial) and orchardgrass. To frost seed, broadcast seed during the late winter period when Wisconsin has warm sunny days and cold nights that produce frost cracking of the ground. The broadcast seed falls into the cracks and germinates as spring conditions improve. The areas to be frost seeded should be either grazed or mowed closely at the end of the previous growing season.

Frost seeding works well for thickening thin pasture stands and to add legumes to the stand, but

is not recommended for establishing new pastures. Research suggests that frost seeding is successful about 60% of the time due to variations in weather conditions from year to year. For this reason some producers plan to frost seed every year to create a pasture “seed bank”.

Fertilization after Establishment

If major nutrient deficiencies are corrected by pre-plant applications of sulfur, phosphorus and potassium, it is seldom necessary to apply additional fertilizer for initial seedling development in new pastures.

Most perennial grass seedlings are inefficient at using nitrogen, so applying additional nitrogen fertilizer early in seedling development only gives weeds a competitive advantage. Perennial grasses with a significant root system (as indicated by 6 – 8 inches of top growth) can use applied nitrogen efficiently if adequate soil moisture and growing season are left during the establishment period. Nitrogen applications should not exceed 40 to 60 pounds per acre at this stage of pasture development.

Weed Control During Establishment

Weeds can be managed using several methods, including biological, mechanical, cultural and chemical. Proper identification of weed species is critical as selection of the best management options is dependent upon the weed species present. If newly established pastures, clipping (mowing) once or twice may be necessary to provide light and give the seedling grasses and legumes a chance to compete. Grazing weeds is an alternative to clipping, if done when soils are firm enough. Realize that some weeds are not palatable or may be toxic, such as pigweed (*Amaranthus spp.*) and lambsquarters (*Chenopodium album L.*), which can accumulate high levels of nitrate, so avoid close grazing of fields with high weed pressure of these weeds. Light grazing can be followed by clipping to help control weeds that are not grazed.

Plan to control perennial weeds such as Canada thistle prior to establishment of pasture through use of crop rotation (where possible) or with appropriate herbicides in existing pastures to be renovated. Since most weed problems will be

broad-leaved species, broadcast spraying with available pasture herbicides such as 2, 4-D, dicamba, or trichlopyr is recommended **ONLY IF** legumes are not present in the pasture, as these herbicides will also kill legumes. Spot treatment with appropriate herbicides may be used for problem areas where desirable legumes are present to minimize injury.

For more information on herbicide treatments, consult the pasture section of UWEX Bulletin A3646, *Pest Management in Wisconsin Field Crops*, available from your location UW Extension Office or can be viewed on the Internet at: <http://learningstore.uwex.edu/pdf/A3646.pdf>.

Haying or Grazing Management of New Pastures

Do not graze or cut pasture for hay until seedlings are well established, usually in the summer for a spring planting. If pasture was established the previous late summer/fall, delay use until the plants start stem elongation and flowering (late spring/early summer). Haying or grazing without allowing sufficient growth during establishment reduces plant vigor, increases weed problems and decreases stand longevity.

To minimize damage to pasture seedlings, graze through the area quickly with hungry animals and then remove them when they have stopped grazing. Avoid grazing when the soil surface is soft from recent rains to prevent damage from livestock hooves. Utilizing a rotational grazing system is recommended to aid in the development of new pasture plantings. With adequate rainfall and appropriate weather conditions, most new pastures can withstand two or three defoliations (clipping and/or grazing) in the establishment year.

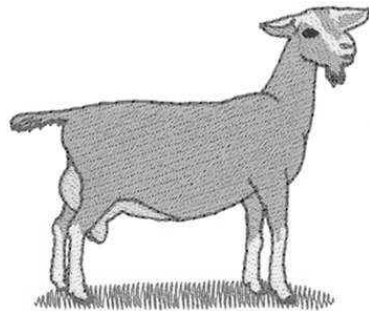


Are There Goats in Your Future?

Dave Wachter
Dairy and Livestock Agent
Grant/Lafayette County UWEX

There is no doubt that goat production is a hot topic in southwest Wisconsin. Over 300 people attended a recent goat seminar at Barneveld. Ground will be broken on April 18 for a new goat milk processing plant in Lancaster. Questions on goat management come into the Extension office on a daily basis. If you are contemplating adding a goat enterprise to your operation, read on!

Let's start at the very beginning. There are two basic types of goat enterprises: meat goats and dairy goats. Some producers combine the two systems in their operation. There are also additional sources of income such as breeding stock sales, sales of excess males from a dairy operation, leasing meat goats for brush clearing, etc. Since this article is going to be brief, let's just consider the basics of goat dairying here and save the meat goat operation for another time.



Dairy

Goat dairying is big business in southwest Wisconsin. In fact, the largest concentration of dairy goats in the country is here in this corner of the state. If you are thinking about milking goats, there are a number of things that you must take into consideration. The first is labor - do you have the ability to milk your goats twice a day throughout their ten month lactation? Milking goats is not much

different than milking cows in terms of the commitment necessary.

Second, do you have the physical resources necessary to feed, house and milk your goats? Housing need not be complicated - older farm buildings are commonly used. The important thing is to have a clean, dry place for your animals. Goats do not do well in wet, muddy conditions. They need 15-25 square feet of space per goat inside the building, depending on size of the animal and the amount of outside lot space.

Feeding can also be relatively simple. Most goat rations consist of good quality alfalfa hay and a coarse-ground or pelleted grain ration (plus salt and mineral). Pasture can certainly contribute much of the forage needed during the growing season, but you must keep in mind that goats are browsers, not graziers, so they prefer nibbling on woody plants, but they will eat grasses and weeds. For more detailed nutrition information, check with your Extension office or the local feed dealer.

Milking systems are fairly simple to put together as well. You can even hand milk if you only have a few does. Most of the area milk equipment dealers can provide you with the equipment you need and advice on setting up your system. Keep in mind that if you want to market your milk, you are subject to the same rules as dairy cattle operations. Also, if you intend to make this a full-time occupation, you will need a more sophisticated milking system to handle the numbers required to generate adequate income.

Since economics has reared its ugly head, let's stop and consider what you want to accomplish with your goat dairy. Several questions need to be asked: is this the main enterprise on the farm? How much income does it need to generate? Is this meant to be a full-time occupation for the operator(s)? Do you have a market for your milk? This point should be taken very seriously, since in the past, there was a considerable waiting period

to be able to sell milk to the processors in the area. Remember that there is a lot of difference between milking a few does to provide milk and maybe cheese for your family and friends and trying to produce enough goat milk income to live on. Enterprise budgeting is another area that Extension personnel can help with.

Third, what breed(s) of goats do you want to milk? The most common dairy breeds are Saanen, Nubian, Alpine, Toggenburg and La Mancha. There are other breeds as well, but their numbers tend to be lower, so finding breeding stock could be difficult. Each of these breeds has its own strengths and weaknesses, so pick the ones that you like and you will probably be just fine. When purchasing goats: buy well-bred, healthy stock with good conformation. Buy from a reputable producer and visit the farm to get a feel for the management practices in place there. Try to buy goats that are used to an environment similar to what you have to offer. Ideally, you will buy goats from a producer that tests for production, is willing to share his health protocols and will provide tests for the major contagious diseases.

Let's talk a little about health concerns. First, if you intend to raise goats, it's important to find a veterinarian who is knowledgeable about goats and is willing to help you set up your health program. There are a number of diseases that affect goats. Some of these can be avoided or at least minimized by purchasing healthy, tested stock. Others can be controlled with a good vaccination program, while some will require diagnosis and treatment by your veterinarian. One of the biggest health issues that goats face are internal parasites. You will need a strategic program to manage internal parasites and you will need to follow it religiously.

This article is just a brief overview of dairy goat production. In no way is it meant to be a comprehensive how-to guide. Instead of answering your questions, it probably has

raised more of them. If you are considering goat dairying, you will need a great deal more information. Please feel free to contact me if you have specific questions or if you need a list of information resources for goat production.



HORTICULTURE HINTS

Wood Mulch and Tree Health

By:

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Adapted from: *University of Wisconsin Garden Facts
Publication XHT1121*

Full Color Fact Sheet be downloaded from:
<http://www.uwex.edu/ces/wihort/gardenfacts/XHT1121.pdf>

What are the benefits of wood mulch?

Wood mulch is typically available as chipped wood, or shredded or chunked bark, and can contribute to tree health in many ways. When high quality, composted mulches are applied two to four inches deep in a ring three to six feet in diameter (or greater) from the trunk of a tree, mulch can help preserve moisture, control weeds, limit damage to the trunk from mowers and string trimmers and moderate the soil temperature. Use four inches of mulch when soils are light and well-drained, and two inches of mulch on heavier, clay soils.

Can wood mulch harm trees?

Use of improperly composted mulches (sometimes called "sour mulches"), can lead to tree nutrient deficiencies. Sour mulches can also

produce gases like methane and ammonia that can be toxic to plants. Foliage on trees surrounded by sour mulches may initially turn yellow, then brown, die and fall off. If your mulch smells like vinegar, ammonia or sulfur, it is likely a sour mulch, and should be removed. Replace the sour mulch with a high quality, composted mulch and consult with your local UW-Extension agriculture/horticulture about testing the soil for nutrient deficiencies. Fertilize appropriately based on the results of these tests.

Improper application of mulch can also lead to problems. Piling wood mulch up against the trunk of a tree can keep the bark underneath excessively wet. This wetness can contribute to bark decay. In addition, use of thick mulch layers (greater than four inches) can lead to overly wet soils that are favorable for development of root rots (see University of Wisconsin Garden Facts X1070). To avoid these problems, make sure mulch is applied at least one to two inches away from the trunk of the tree and that the mulch layer is the appropriate thickness for the soil type in your landscape (see above).



Does woody mulch harbor or attract insects?

Insects such as earwigs (see UW-Extension bulletin A3640), centipedes (see University of Wisconsin Garden Facts X1113), millipedes (see University of Wisconsin Garden Facts X1108) and sowbugs (see University of Wisconsin Garden Facts X1110) can feed on decaying organic matter in mulches. While these insects are often only nuisances, earwigs

can feed on and cause damage to a variety of ornamentals, particularly to flowering plants. If mulch is used near entrances to a home or around basement windows, these unwanted insects may get inside.

Termites ingest wood and can be attracted to wood mulch, but new termite colonies are not likely to become established due to use of wood mulches. Typically termites are not a problem in Wisconsin, and when colonies are found, they occur only in the southern half of the state.

Carpenter ants (see UW-Extension bulletin A3641) and powderpost beetles (see University of Wisconsin Garden Facts X1053) are unlikely to utilize mulch as a food source because conditions required for their development would not be satisfied by wood mulch. Carpenter ants do not ingest wood as a food source; instead, they chew non-living wood (in trees or landscape timbers, etc.) to excavate galleries in which they live and raise their young. Since wood mulch is composed of small wooden pieces, it would not serve as a home. To avoid potential insect problems, keep mulch as far away from the foundation of your home as possible and seal all holes and crevices where insects might use as entry points. Also, periodically inspect landscape timbers and the house for termites.

Does woody mulch harbor tree pathogens?

Wood mulch may come from many sources, including trees and shrubs that have died from a wide range of diseases. To be harmful to your trees, disease-causing organisms (pathogens) would have to survive in mulch and these organisms would have to move from the mulch either directly, or through the soil, to their new host - your tree. There is currently very little research on this topic.

Elm trees killed by Dutch elm disease (see University of Wisconsin Garden Facts X1076), can serve as breeding areas for native and European elm bark beetles. Bark beetles that

breed in logs or firewood from these trees can pick up the fungi that cause Dutch elm disease (Ophiostoma ulmi and Ophiostoma novo-ulmi) and carry these fungi from tree to tree. Chipping infected elm trees creates an unfavorable environment for bark beetles yet there is no scientific literature that describes the level of risk of transmitting the Dutch elm disease fungi from wood chips or bark chunks to healthy elms.

Oak trees killed by oak wilt (see University of Wisconsin Garden Facts X1075) can be attractive to several sap-feeding beetles that can potentially pick up the oak wilt fungus (Ceratocystis fagacearum) and move it in the landscape. This process is affected by moisture and temperature and would likely be disrupted by the chipping and composting process yet there is no scientific literature that describes the level of risk of transmitting the oak wilt disease fungus from wood chips or bark chunks to healthy oaks.

Recent research at the University of Wisconsin-Madison suggests that wood chip mulches produced from trees suffering from Verticillium wilt (see University of Wisconsin Garden Facts X1008) can serve as a source of the fungus (Verticillium dahliae) that causes the disease. These studies show that Verticillium can survive for at least one year in mulch and that use of this contaminated mulch can lead to Verticillium wilt in both woody and herbaceous plants. Therefore use of mulches produced from trees with Verticillium wilt should be avoided.

For more information:

Visit the UW Extension Horticulture Garden Facts Web site at:
<http://www.uwex.edu/ces/wihort/GardenFacts2.html> or contact your county Extension agent.



Money & Markets

Basic Advertising: A Look to Your Product

By
Adam Hady
Agriculture Agent - Richland County UWEX

All agriculturalists are producers of food or fiber. The amount and the reasons may vary from producer to producer. However, at some point you will be selling your product. The key is to sell your product effectively through advertising. Advertising can range from a Sweet Corn for sale at the end of the driveway to a full blown branding concept.

To start, the simple question is why should you advertise? The obvious answer comes forward, because I have something to sell. This may not be the only reason that someone has to advertise. Advertising can create an image of a product or farm or company. You may want to create a demand for the product you have. The key is advertising does different things for different people.

There are two basic types of advertising: product advertising and promotional advertising. Product advertising is as it sounds, development of a product, and creates a reason why we want to have the product. For example, in the beef industry the Angus Association advertised the Certified Angus Beef program. This program is a long term advertising campaign that made consumers want to buy certified Angus beef. The second is promotional advertising. Promotional advertising is short run and has an immediate response. Using our Angus beef example, if a grocery store has a sale on certified Angus beef - this is promotional advertising.

Product Advertising

As we look at ways to develop our product, advertising becomes a key factor. What are the keys that you can utilize to make your product recognized and wanted? If I say I have a green tractor, what kind of tractor comes to mind? For most of you a John Deere would be the first to come to mind. Through their marketing program, they have developed John Deere Green and made it recognizable. It is a company that you know and are comfortable with.

Building advertising in this area is about repeating what the consumer needs to know. Make your product so that in a glance people know that it is yours. The ads do not have to be large or in color. However, they have to stand out.

When doing a long term ad program consider the following points:

- *Request the same space* – for example if you are advertising in a weekly paper, request to be put in the same page and space. Consumers will learn you and where to find your ad.
- *It takes three* - It takes consumers three times of seeing the ad to remember the ad. Remember it will take more exposure for a consumer to react to the ad.
- *Play on the heart strings* – what connects you to your consumer, and what are the buzz words surrounding your product. Utilize phrases like family-raised. If you choose to use pictures make sure that they are clear.
- *Incorporate on other Media* - Put your logo on other media such as hats, shirts, etc. Make your logo familiar.

Promotional Advertising

As stated earlier, this is a quick type of advertising. You want people to react quicker than with product advertising. These are sales,

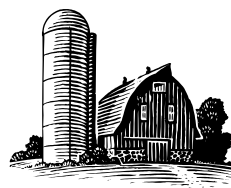
specials, limited time offers. You will want to get the word out faster and most likely in wider range of media (newspaper, radio, etc.). For example if there is a farm sale and you don't have a date, start telling people, that sometime in the spring we will be having a sale. This starts people looking for the ads with dates and will create a bigger draw.

Write it Down

Let's start developing our advertising plan. Step one is to determine a budget. The budget should be based off of what you plan to sell. This can be accomplished by either estimating how much you are going to earn from future sales or from past sales. From these sales estimates you may set aside a range of 2-7% of sales for the advertising budget. When getting established, the 7% range may be more appropriate to start the long-term plans and build name recognition.

Now that the advertising budget is in place, what area or segment of the population do you want to target? Are the target areas local, regional, or national? Developing the area then will help in deciding where to advertise. If you want a national feel, you most likely will not put your advertising resources into the community news paper. However, you may put those resources into a trade publication or to internet advertising.

However you go about you advertising, remember the key is to develop an ad that will set you apart, easy to find, and targeted in the right direction. Happy advertising!



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