



Ag Connection

Your local link to MU for ag extension and research information

<http://agebb.missouri.edu/agconnection>

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Jump Starting Spring Pastures

Pastures have taken a beating the last few years. Many pastures were overgrazed during the drought of 2018. Excessive precipitation in the spring of 2019 led to pugging of the soil and trampling of plants by livestock hooves. Plants that were dislodged or suffered crown damage from trampling, often did not recover. These compromised stands were slow to green up in the spring of 2019, giving weeds the chance to become established.

Apply fertilizer and lime according to soil test recommendations

Maintain soil pH and fertility in the range best suited for the plant species in the pasture. This is the first step toward a healthy, vigorous pasture. Soil testing is the only way to know if soil phosphorus, potassium and pH levels are optimal for plant growth.

When soil pH is in the 6.0 to 6.5 range, macronutrients like nitrogen, phosphorus and potassium are readily available. This pH range also helps legumes like birdsfoot trefoil, red clover, white clover and lespedeza, be competitive. When the pH is low, rhizobia bacteria needed for nitrogen fixation by legumes cannot survive.

To promote legume growth, do not apply nitrogen to mixed grass-legume pastures. The nitrogen will give the competitive advantage to the grass which will shade out legumes that begin growing later in the spring.

Overseed legumes to improve forage production and quality

Legumes like red clover and white clover are short-lived perennial plants, which must be reseeded every two or three years. Lespedeza is an annual and must be planted every year, if it is not allowed to set seed each autumn. These legumes can be broadcast seeded in late winter over the top of pastures which have been grazed short or can be drilled until mid-April.

Control pasture weeds

Weeds are plants of opportunity. Common ragweed will start germinating in early spring and continue to germinate through late summer. Each common ragweed plant can produce up to 15,000 seeds. Those seeds may live as long as 40 years in the soil. Vigorous stands of desirable forage do not give weeds the opportunity to germinate and become established. Weeds are easier to control when they are small. Develop a weed control strategy early in the grazing season and remain vigilant.

Avoid overgrazing

Research has shown when less than half of a plant is removed by grazing, the plant roots are not affected. When more than half of the leaf material is removed, the roots will stop growing. The more severe the defoliation, the greater the percentage of roots which stop growing and the longer it takes them to recover. Grazing 60 percent of the plant results in 50 percent of the roots stop growing for several days.

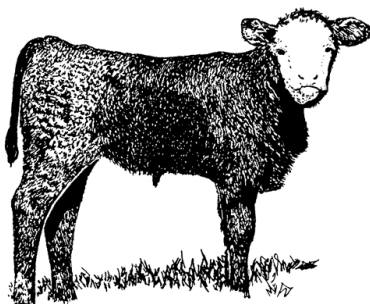
Removing 80 percent of the above ground growth, affected 100 percent of the roots. The more frequently the plant is overgrazed, removing more than half of the leaves, the longer it takes the plant to recover.

Healthy, well-managed pastures are more adept at surviving stress. Soil fertility, weed control and maintaining the proper grazing height will lead to pastures that are more productive for many years. Take action now to jump start pastures for the 2020 grazing season. Visit the NRCS+MU Grasslands project at <https://extension2.missouri.edu/programs/nrcs-mu-grasslands-project> for more information about developing a grazing plan and improving pastures.

Source: *Valerie Tate, agronomy specialist*

Calving Difficulties: When is it Time to Intervene?

The most common cause of calf loss is dystocia, or calving difficulty. Difficult births can also cause leg fractures, damaged nerves, and an increased chance of calfhood diseases. Knowing when to intervene and providing timely assistance greatly reduces stress on the calf, dam, and producer.



The best way to know when to provide assistance is to know the timeline for a normal birth. Calving is broken up into three stages. Stage 1 begins with the dilation of the cervix. This stage usually lasts 2-6 hours but may last up to 24 hours without worry. There are usually very few visible signs during stage 1, particularly in older cows. Some cows may become restless or isolate themselves from the herd. By the end of stage 1, there may be some mucus discharge and the relaxation of the pelvic muscles may cause either side of the tail head to look “sunken”. Complete cervical dilation must be achieved before the cow enters the next stage of parturition and must be checked before any assistance is given.

Stage 2 of calving begins with the calf entering the birth canal and ends with the delivery of the calf. This is the stage where the most intervention may be needed. Stage 2 visibly begins when the water sac

can be seen. Historically, it was thought stage 2 could last from 2-5 hours, but recent research shows it is much faster. Studies performed at Oklahoma State University and the USDA research station in Miles City, Montana, found heifers calved unassisted in just under an hour, while older cows averaged 22 minutes. Therefore, it is recommended to provide assistance to heifers after 60 minutes with no progress, and to cows after 30 minutes with no progress. If the cow or heifer is continuing to make progress with each contraction, let her continue on her own. If no progress is being made, perform an examination to determine the size and positioning of the calf and the type of assistance needed. Producers should learn their limits and know when veterinary assistance is needed.

Stage 3 is the delivery of the placenta and fetal membranes. This normally occurs within 8-12 hours. If the placenta has not been shed after 12 hours, it is considered retained and a veterinarian should be contacted. The veterinarian can administer antibiotics to guard against infection. The placenta should slough off on its own within 4 to 7 days.

Contact your veterinarian at any stage of calving if a cow is having difficulty. Most veterinarians prefer to be involved early rather than waiting for the problem to become severe. Veterinarians have more experience and tools available if assistance is needed. It is never too early to get a veterinarian involved.

Source: *Jenna Monnig, livestock specialist*

Prune Trees and Shrubs in Late Winter

Most trees and shrubs should be pruned at certain times of year, usually when dormant. Late winter is the best time to prune shade trees, fruit trees and small fruit plants. Shrubs that flower in the spring like the lilac and forsythia, should only be pruned after flowering, typically late May or early June. Shrubs that flower later in the summer, should be pruned in late winter or early spring. They bloom on new growth.

Pruning should be done for a purpose. It involves removing diseased or insect-infested wood and removing crossing and rubbing branches. Dead limbs, wind damaged or overhanging limbs that are a threat to a house are also reasons that justify pruning of trees. Pruning encourages trees to develop a strong framework, and reduces the likelihood of damage during severe weather. Removing broken or damaged limbs encourages wound healing.

The pruning goal with younger trees is to encourage the development of a true leader branch, a main stem growing straight up that defines the tree's vertical structure. Find the strongest, most vertical of the branches to use as the leader, and head back (cut short) any others that threaten to sap the leader's food and energy. On main branches other than the leader branch, head back the smaller branches growing off those.

Many home fruit growers make the mistake of planting a tree, then neglecting it until it begins to bear. However, careful attention to pruning and training young trees will ultimately determine their productivity and longevity. Good pruning and training will also prevent later injury from weak crotches that break under snow or fruit load.

Before pruning a shrub, first decide what needs to be removed. As with trees, take out dead or crossing branches. Most shrubs require occasional thinning, especially older ones. When thinning a shrub, remove the oldest branches down to the ground. This opens the center of the shrub to sunlight, encouraging new branch growth and increased leaf production throughout the shrub. The key is to completely remove those branches. Many homeowners never really thin their shrubs, relying instead on periodic shearing of the branch ends. This encourages heavy leaf production on the top half of the shrub, which prevents adequate leaf growth on the bottom half of the shrub.

Homeowners sometimes prune trees to limit their size, especially those growing under power lines. This method of control is unfortunate and can be devastating to the tree. It is better to select a low-growing tree, if it is to be planted near or under a power line to minimize the need for pruning. Homeowners should consider the mature size of a tree when planting one near a house or building.

Tree "topping" is the non-selective cutting of all the branches of the tree. It can be as non-invasive as reducing the length of all the tree limbs or as extreme as only leaving the trunk of the tree and some short branches of the main trunk. There is never a good time for topping. Some people believe topping concentrates the vigor of the tree into a reduced area, but actually the opposite happens. The limbs that rapidly grow back are weaker and more vulnerable to damage. Topping also exposes larger limb cuts to insects, disease and rot. A homeowner is effectively reducing the life of the tree by topping it. The tree may live for many years afterward, but its life will be shortened over the genetic potential of the tree, had topping not occurred.

For more information on pruning, contact Jennifer Schutter, field specialist in horticulture at 660-665-9866.

Source: *Jennifer Schutter, horticulture specialist*



Gardening Tips for March

Vegetables :

- ◆ Fertilize the garden as the soil is being prepared for planting. Unless directed otherwise by a soil test, 1-2 pounds of 12-12-12 or an equivalent fertilizer per 100 square feet is usually sufficient.
- ◆ Cultivate weeds and remove old, dead stalks of last years' growth from the asparagus bed before new spears emerge.
- ◆ Delay planting if the garden soil is too wet.
- ◆ Asparagus and rhubarb roots should be planted as soon as the ground can be worked.
- ◆ Plant peas, lettuce, radishes, mustard greens, turnips, Irish potatoes, spinach, and onions (seeds and sets) outdoors.
- ◆ Plant beets, carrots, parsley, and parsnip seeds outdoors. Set out broccoli, cabbage, Brussels sprouts, Chinese cabbage, and cauliflower transplants into the garden.
- ◆ Start seeds of tomatoes, peppers, and eggplants indoors.

Ornamentals:

- ◆ To control Iris borer, clean up and destroy old foliage before new growth begins.
- ◆ Fertilize bulbs with a "bulb booster" formulation broadcast over the planting beds.
- ◆ Loosen winter mulches from perennials cautiously.
- ◆ Dormant mail order plants should be unwrapped immediately. Keep roots from drying out.
- ◆ Trees, shrubs, and perennials may be planted as soon as they become available at local nurseries.
- ◆ Seeds of hardy annuals such as larkspur, bachelor's buttons, Shirley and California poppies should be direct sown in the garden now.
- ◆ Heavy pruning of trees should be complete before growth occurs. Trees should not be pruned while the new leaves are growing.
- ◆ Summer and fall blooming perennials should be divided in spring.
- ◆ Apply sulfur to the soils around acid-loving plants such as azaleas, rhododendrons, hollies, and dogwoods. Use a

granular formulation at the rate of ½ pound per 100 square feet.

- ◆ Apply a balanced fertilizer such as 6-12-12 to perennial beds when new growth appears.
- ◆ Spring bedding plants such as pansies and toadflax may be planted now.
- ◆ Ornamental grasses should be cut to the ground just as the new growth begins.
- ◆ Gradually start to pull back mulch from rose bushes.

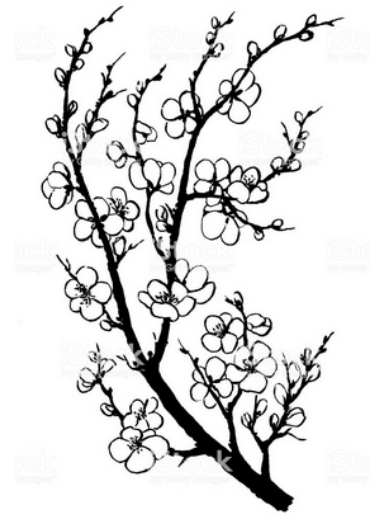
Fruits:

- ◆ Gradually remove mulch from strawberries as the weather begins to warm.
- ◆ Continue pruning grapes. Bleeding causes no injury to the vines.
- ◆ Continue pruning apple trees. Burn or destroy all prunings to minimize insect or disease occurrence.
- ◆ Apply dormant oil sprays now. Choose a dry day when

freezing temperatures are not expected.

- ◆ Spray peach trees with a fungicide for the control of peach leaf curl disease.
- ◆ Aphids begin to hatch on fruit trees as the buds begin to open.
- ◆ Peaches and nectarines should be pruned just before they bloom.
- ◆ Mulch all bramble fruits for weed control.

Source: Missouri Botanical Garden



Return Service Requested



Northeast Missouri
Ag Connection
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