

Forage Facts



Spring Pasture Considerations

1) Fertilizing pastures & hay fields

- a) May apply lime, phosphate and potash on most soils at any time.
 - i) If the P and K INDEX from your recent soil test data show levels of 50 or higher, *you might consider skipping* or using low rates this year, especially on pastures where you are doing a really good job of controlling the grazing and loafing patterns of the grazing animals.
 - ii) If you applied P, K and lime according to the soil test report last fall this will be sufficient for until fall of 2007. Only N on grasses will be needed in split applications this year.
- b) one-lb of N gives 15-25 lbs of dry yield response up to about 150 lbs N/yr
 - i) N costs..... \$.50/lb therefore 20 lbs dry matter = \$.025/lb of dry matter.
 - ii) Legume-grass mixtures will return about the same yield without the purchased N.
 - iii) It cost \$40 to \$60 to cut, rake and bale hay....= \$.02 to\$.03 / lb of dry matter.
 - iv) Mixtures with clovers usually provide better nutrition to animals and often extend the season of use a few days or weeks.

2).Planting New Grasses in Spring..... it is risky for cool season grasses.

- a) Planting cool season grasses like fescue, orchardgrass, bluegrass and prairiegrass in the spring is very risky, even though some years one may be successful.
 - i) If one is going to risk planting these grasses in spring, it is best to get the seeds into the soil in late February-early March.
 - ii) Be prepared to encounter significant competition from crabgrass, panicums, signalgrass, goosegrass and many summer broadleaf weeds.
 - iii) Grazing management for the spring planted cool season grasses will need to be very controlled to minimize grazing below 3-4 inches anytime before fall.
- b) The least risky thing to do is to plant a summer annual in spring followed with an autumn planting of the cool season grasses.

3. Overseeding Clovers into Grass.

- a. In February overseed legumes (white and red clovers or alfalfa) into closely-grazed and well-limed grass pastures.
- b. Inoculate the legume seeds before planting or use pre-inoculated seeds.
- c. White clover (also called Ladino clover) and red clover may be planted during February by simply spreading the seeds on the surface of the soil. For this approach to be successful, the existing vegetation in the pasture should be grazed down to 2-inches or less. It is not necessary that the grass be that short at time of planting, but soon thereafter it should be grazed to that short height. After sowing the seeds it is sometimes an advantage to have the animals walk over the area to press the seeds into the soil surface. This may be encouraged by rolling hay out in various places in the pasture.
- d. The seeds will start to germinate in early March, and the seedlings need to receive sunlight during the very earliest stages of development if they are to survive in the mixture. Grazing animals usually do not eat the seedlings until they are more than an inch tall, and at that point it is best to remove animals from the pasture until the seedlings can reach at least 6 inches height.
- e. Grazing management during this phase is sometimes “tricky” in that you do not want the associated grass producing so much shade that the clover seedlings struggle or die due to

lack of sunlight, but you do not want the grazing animal to keep all of the leaves completely removed from the developing seedlings.

- f. Walking the pastures every day while grazing a particular pasture will provide the opportunity to make adjustments of the grazing effects. Having small paddocks or very strict control of the amount of space animals are allowed to graze makes it much easier to control or protect the seedling plants.
- g. Planting rates for the white clovers should be in the 2-4 lbs/acre range. Red clover should be planted at 6-10 lbs/acre. However, many people like to mix the two clovers in pastures, and this mixture should contain about 2 lbs of white clover and about 4 lbs of red clover/acre.
 - i. If overseeding hay fields, red clover is preferred over ladino because it grows taller and is better suited to the competition from the grass.

4. Some other things to think about

- a. Protecting the pasture plants by not over grazing and trampling can result in better yields in the future.
 - i. Managing the start and stop grazing heights can extend the life of stands and have positive impact on yields and regrowth following stress.
 - ii. Maintaining 2-4 inches of stubble can have significant impact on root mass, on rainfall infiltration, thus drought tolerance....it is the cheapest way to conserve soil moisture and minimize impact of short term droughts.
- b. If pastures have significant winter weeds like buttercup, be prepared to spray as early as day time temperatures stay in the 60°F range. When the yellow flowers appear they will be pretty, but you are a few weeks late on getting effective control.
- c. If you plan to plant hybrid bermudagrass this year, it is a good time to make arrangements for the sprigs. The odds of getting good stands are best when the dormant sprigs are put into the ground before any green-up of the bermuda occurs; any amount of green up prior to digging means the sprig is in a weaker condition than prior to greenup.
- d. Seeded bermuagrasses are available that offer alternative to sprigging hybrids. When planted at 5-10 lbs of seeds per acre they generally provide quicker ground cover than sprigged hybrids. However, the seeds are very small and many people plant them too deep; seeds should not be planted more than ¼ inch deep. In fact, most people will have best success if they broadcast the seeds on top of firm soil. Some people have had success mowing or grazing the existing grass to 1-2 inch stubble followed by broadcasting the seeds and then dragging over the area with a spike-tooth harrow or roller. **BE AWARE THAT SEEDED BERMUDA VARIETIES WILL SPREAD BY SEED WHEREAS THE HYBRIDS DO NOT SPREAD FROM SEEDS.** If one does not want bermudagrass in every field on the farm, then it is best not to plant seeded varieties; seeds easily move with animals, birds and equipment.
- e. Brown Mid-rib sudangrass should be considered if a summer annual is needed. Most grass plants have a very obvious vein in the leaf blade that extends from the base of the leaf to its tip. This vein is called a midrib. Plants with the brown midrib have less lignin than normal tissues. Lignin content increases as a plant matures and is thought to provide the structure necessary to help a plant grow erect. Whereas lignin might hold a plant erect, too much lignin results in less intake by the consuming animal and reduced cell wall digestibility
- f. If you plan to plant native warm season grasses for forage, wildlife habitat, field borders or buffers, it is time to get those seeds ordered.
- g. Can you purchase hay cheaper than you can produce and harvest it? The true cost of cutting, raking and baling hay is more than \$50/ton of dry hay. For a 700 lb bale that is more than \$16/bale just to harvest, and it does not count the cost of the crop.
 - i. see forage budgets at http://www.ag-econ.ncsu.edu/extension/Ag_budgets.html