

Professor answers common questions

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Since we have not had a forage Extension specialist in Georgia for a number of years, those of us in teaching and research at the university try to answer questions that come from county Extension agents, livestock producers and seed dealers. In this article, I will include a number of questions that commonly occur and may be of interest to you.

Does it really pay to protect hay bales from the weather? Experiments have shown that round bales stored outside on the ground will have storage losses of 30 to 40 percent. Thus, for hay valued at \$60 per ton, the weathering loss will be \$15 to \$20 per ton. For a 1,000-pound round bale, one could afford to spend at least \$7.50 per bale to prevent storage losses.

Various prevention methods such as tarps, plastic covers and balage can be used but all have some disadvantages. In the long run, many livestock producers have found that building a pole barn is one of the best ways to reduce hay losses.

Should I plant Cheyenne or another giant bermudagrass variety? In addition to common bermudagrass, there are a number of giant seed-planted varieties on the market such as NK37, Pasto Rico, Terra Verde, Cheyenne and Rancho Frio. None of these are recommended in the Coastal Plain because of disease susceptibility. Sprig-planted Tifton 85 and Coastal are top choices in the Coastal Plain.

In the Piedmont and Limestone Valley regions, Cheyenne and Rancho Frio are the only seed-planted varieties that have performed well. The other varieties yield very well the first year, then stands and production decline in succeeding years because of cold injury or leaf spot disease susceptibility. Cheyenne has yielded similar to Coastal or Russell in these areas but winter hardiness is superior. Rancho Frio is a blend of Cheyenne and a non-persistent giant bermudagrass, done to extend limited supplies of Cheyenne

seed.

As stands of the non-persistent giant type disappear, it will be replaced by the spreading Cheyenne. In a three-year trial at Athens, Ga., yields of Cheyenne and Rancho Frio were similar, which indicates that Cheyenne will dominate the mixture. Although cost of seed planting bermudagrass is lower than for sprigs, there is a risk of stand losses from crabgrass dominating the stand as there is no herbicide that can be used.

Can I store infected Kentucky 31 tall fescue seed for a year and then plant it for a non-toxic pasture? You can, but it is not a good idea. There is little difference between the cost of endophyte-infected Kentucky 31 and endophyte-free Jesup seed. Also, under usual on-farm storage conditions in our humid climate, seed germination drops by at least 10 percent and vigor even more. Another problem is that the endophyte level may not drop to zero so you will end up with a mixed stand of endophyte-free and infected plants, the latter will out-compete and eventually dominate the stand under normal grazing conditions.

How can I prevent nitrate poisoning in my cattle herd? Hay or pasture of browntop millet, pearl millet, sorghum-sudangrass and johnsongrass that have been fertilized with nitrogen can accumulate high levels of nitrates during drought periods. Since these grasses have the potential to poison cattle, have the forage sampled for nitrate levels before feeding it. Hay containing very high nitrate levels cannot be fed so should be sold for non-farm mulch use. Highly fertilized bermudagrass can sometimes also be toxic when growing under moisture stress.

The ads for Matua prairiegrass sound pretty good. Sould I plant it? Matua is advertised as a high-quality perennial grass that grows over much of the year. In our trials in central and north Georgia planted on prepared land, Matua yields the first year generally exceeded that of tall fescue but in the second and third

years, the yields dropped substantially as stands declined.

Winter production of Matua was lower than tall fescue. In central Georgia, total yield of rye was 20-percent higher than Matua when planted in bermudagrass sod over a three-year period. More importantly, winter production of rye was about triple that of Matua.

In the Coastal Plain, Matua is likely to be only a weak perennial and would need to naturally reseed or be planted each year. Seeding rates and seed costs are high. Annual ryegrass and rye would be better alternatives.

What can I do to keep white clover in my tall fescue pastures? Soil test and add lime and fertilizer as recommended. High soil potassium levels are required for good clover. None of the white clover varieties currently available survive much more than two years, so it is essential to broadcast or drill clover seed into pastures during the winter every other year. This is a cheap practice and easily repays the cost by improving forage quality and supplying free nitrogen to the pasture.

Why do I have problems with johnsongrass in my commercial bermudagrass hay fields while there is none in my pastures? Buyers of horse hay do not want johnsongrass in it because of potential cystitis problems, so commercial hay fields need to be free of this grass. Johnsongrass thrives when harvested at hay stage as the rest period between cuttings allows it to store food in large rhizomes and maintain vigorous stands. In bermudagrass pastures, cattle like johnsongrass and keep it grazed closely so there is insufficient food stored for regrowth, which weakens plants and causes them to die.

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