



Fall 2006, No. 6

WILL YOUR BERMUDAGRASS BE READY FOR WINTER?

Preparation of warm season perennial forages for winter can help performance next spring. Several practices should be considered when preparing bermudagrass for winter... among these is fertility, and more specifically potassium nutrition.

Potassium performs many important functions in forage crops. Among the benefits of adequate potassium fertility are:

- **Increased forage yields and potential profit**
- **Improved efficiency of nitrogen fertilizer**
- **Increased water use efficiency**
- **Increased root growth**
- **Enhanced drought tolerance**
- **Reduced susceptibility to several plant diseases**
- **Improved winter hardiness**

If bermudagrass forage production this summer seemed sluggish or did not respond to nitrogen applications as well as expected, you might want to check the soil potassium level. Soil potassium can be rapidly diminished under forage production, especially where hay is harvested. Each ton of bermudagrass hay will remove about 50 pounds of potassium (expressed as K_2O). This means that a 6 ton bermudagrass seasonal hay harvest will export the equivalent of about 300 lb K_2O fertilizer per acre.

The book *Southern Forages* (Ball, Hoveland, and Lacefield) states: "This nutrient (potassium) should be present in adequate amounts at all times, but is particularly important in areas where cold hardiness is a factor in forage stand persistence. Even where there is no cold stress, potassium is of major importance to stand longevity of legumes and rhizome production of bermudagrass."

Applying potassium fertilizer in the late summer to early fall is often referred to as winterization.

Potassium applied 4 to 6 weeks before the forage goes dormant can help winterize perennial warm season forage by:

- **Increasing the photosynthetic production of carbohydrates**
- **Stimulating storage of starch reserves in the roots and rhizomes.** Rhizomes are underground stems that function as food storage organs and as vegetative buds for next season's growth.

A good late summer soil fertility and bermudagrass nutrition program can be important in improving forage, livestock, and profit production potential going into next year.

—WMS—

For more information, contact Dr. W.M. (Mike) Stewart, Southern and Central Great Plains Director, PPI, 2423 Rogers Key, San Antonio, TX 78258. Phone: (210) 764-1588. E-mail: mstewart@ppi-far.org.