

# Red Clover—A Valuable Pasture and Hay Plant

Carl S. Hoveland, Crop & Soil Science Dept., University of Georgia, Athens, GA

**C**lover is a great addition to a pasture, supplying nitrogen and high-quality forage for livestock. In central and north Georgia where endophyte-infected tall fescue is the dominant pasture grass, clover can offset much of the toxicity symptoms and greatly improve cow-calf performance. Red clover is one of the most important clovers grown in the USA but the usage is small in Georgia. It is such a good clover and should be planted to a greater extent in Georgia.

## Description

Red clover, a native of southeastern Europe and Turkey, is an erect-growing leafy plant 1 to 3 feet tall with very hairy leaves marked with a white "V". The large round flower heads are purple and not red as the name would indicate. The mitten-shaped seed are purple to yellow and nearly three times the size of white clover, requiring a seeding rate of 8 to 12 pounds per acre. Seedling vigor is excellent and much better than any other clover or alfalfa. In north or central Georgia, it will be productive for 2 years but in the Coastal Plain it will generally survive only one year.

## Adaptation

Red clover has a tap root and is more drought-tolerant than white (ladino) clover. It is tolerant of soil acidity and adapted to a wide range of soils. In south Georgia, it should not be planted on droughty sands but rather on flatwoods soils. Do not plant red clover on poorly drained soil where water will stand. Red clover requires good fertilization with phosphorus and potassium.

Red clover is much more productive than white clover. Older varieties of red clover were attacked by a number of leaf diseases but new varieties such as Renegade, Kenstar, Redland 111, and Cinnamon have a high level of disease resistance. Cherokee, developed in Florida, is especially disease resistant and has a high level of tolerance to soil nematodes. This variety has performed very well in our central Georgia trials. It begins growth earlier in spring and con-



tinues growing later in the fall than other varieties which are of northern origin.

## Uses

Red clover, because of its high yield potential, is an excellent hay plant. We have obtained yields of 3 to 4 tons per acre of dry hay annually when grown on prepared land. Cut red clover hay at early bloom stage. It grows well in hot weather so will provide more grazing in summer than white clover. Nutritive quality is high so it can boost weights of calves to be weaned in the fall. Unlike white clover, red clover will not tolerate extremely close continuous grazing over long periods of time. Best results are obtained with moderate grazing to maintain some leaf tissue on the plants at all times.

Red clover is excellent for drilling into grass sods. Rapid seed germination and outstanding seedling vigor normally result in good stands. The clover plants compete well with tall fescue or orchardgrass. Thus, red clover is useful in diluting the toxic effect of endophyte infected tall fescue pastures. Red clover can be drilled into bermudagrass pastures on flatwoods land but not on droughty deep sands. On prepared land, red clover can be seeded alone or with tall fescue, orchardgrass, or small grains. Seeding

rate should be 12 to 15 lb/acre and at a depth of 1/4 to 1/2 inch.

## Sodseeding red clover

Probably most red clover will be sodseeded into tall fescue pastures in Georgia. It improves forage quality (especially in summer), supplies free nitrogen (100 to 150 lb N/acre/year), and extends the productive season of the pasture. Planting failures can occur, sometimes as a result of drought, but more commonly it is caused by poor management. A few tips are offered based on our experience with red clover that can reduce the risk of failure:

(1) Soil test early and apply the recommended lime, phosphorus, and potassium.

(2) Buy good seed of a red clover variety recommended for your area. Cheap seed are no bargain!

(3) Control existing grass vegetation. Failure to reduce vegetative cover on a pasture is the most common reason for stand failures from sodseeding. Heavy stocking and close grazing or mowing prior to planting will make it easier to get good seed-soil contact and prevent shading of the clover. On tall fescue sods seeded in September, October, or March,

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## NOTABLE

problems and help them develop profitable seedstock programs.

"I've been able to listen to people and try and help solve their challenges," Winston said. "Seeing breeders grow and realize their goals has been very rewarding."

He also had a tremendous influence on the field staff members he supervised as well as the staff at APHA headquarters. His sense of integrity, work ethic and fair play were branded upon all who worked with Winston. He had a powerful influence on the many youth he guided through the APHA junior program, and was involved with the Junior National since it was first held in 1974.

Winston's roots in the livestock industry go back to his boyhood. Raised near Raleigh, N.C., Winston worked on the family's livestock farm and was an enthusiastic 4-H and FFA member. He attended Oak Ridge

Military Institute and East Carolina University before enlisting in the U.S. Navy in 1950. After four years of service, he returned to civilian life and graduated with honors from North Carolina State University in 1956.

Following graduation and a short stint as an assistant county agent, Winston was named executive secretary of the North Carolina Hereford Association. By 1961, he was getting a much closer view of the day-to-day challenges of the cattle industry as manager of a commercial Hereford operation. Three years later he joined the American Hereford Journal's field staff and served eastern Hereford breeders until joining APHA.

Each of these experiences helped mold Winston into one of the most respected livestock marketers in the purebred business. His success has been shared by his wife, Rose, their two children, Andy Winston and Mary Grey Winston, and six grandchildren.

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it is important to apply 3/4 pint of Gramoxone herbicide to suppress (but not kill) the grass to reduce competition for water needed by new clover seedlings. If you plant in winter, grass competition is less.

(4) When is the best time to plant? With tall fescue or orchardgrass, September or October sodseeding is more hazardous as clover stands can be seriously reduced some years by sclerotinia root rot. This is not a problem in winter seedings. In our sodseeding trials where Gramoxone was not applied to the grass, November seedings were best and gave the most clover growth in spring and summer. Where Gramoxone was applied, March seedings were very successful. If you are planting into bermudagrass, drill the seed into closely grazed sod after the grass is dormant in November.

(5) Some red clover seed is pre-inoculated in a pellet. If so, increase the seeding rate by about 2 pounds per acre. If your red clover seed is not pre-inoculated, then you must inoculate the seed with the correct strain of bacteria before planting.

(6) Plant with a sodseeding machine if at all possible to get seed at the correct depth and in contact with the soil. A grain drill often does not penetrate the grass sod so the seed fail to make good soil contact.

(7) Broadcast seeding and allowing cattle to trample in the seed is cheap but it rarely matches drilling. It can give fair results if large numbers of cattle are concentrated on an area to trample the seed into the ground. Our experiments in central Georgia show that broadcast seeding in October is worthless but can be better if done in January or February on closely grazed pastures. At Calhoun and Blairsville, fall broadcasting of seed has been about as good as February. Red clover is the most dependable clover we have found for broadcast seeding but the results are never as good as drilling the seed.

(8) Fall-seeded red clover seedlings are sometimes destroyed by pygmy crickets. New clover stands should be carefully checked and if half-moon shaped cuts occur in leaves, then soon the entire seedling will be eaten. The crickets can be controlled by applying the labeled insecticide Diazanone or Lorsban. Insects are normally not a problem when seeding is done during winter.

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