

Red Clover

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Clover can add nitrogen to a pasture but more importantly, it can improve nutritive quality of grazing and help wean better calves at low cost. If cut for hay, clover can reduce the need for feeding protein and energy supplements in winter. Among the many species of clover grown in Georgia, red clover offers some advantages that make it worth trying. This is one clover that can be grown successfully all over Georgia. In northern Georgia, it survives two years and sometimes three years while in south Georgia it is a long season winter annual that may grow into early summer.

What does it look like?

Red clover and crimson clover are sometimes considered to be the same plant. They are not! Crimson clover is a reseeding winter annual with brilliant crimson-colored long heads, grown mainly in south and central Georgia. Red clover is an erect-growing plant with very hairy elongated leaflets marked with a white "V" and large pink to purple colored flower heads. The heads are not red as the common name would indicate. The mitten-shaped seed are purple to yellow and about three times the size of white clover.

What are the advantages of red clover?

- (1) Long productive season. In north Georgia, it will continue to grow through the summer whenever moisture is available.
- (2) Tolerates heat and drought much better than white clover.



Guy Rawls, Northwest Georgia Branch Station, Calhoun, in Redland III red clover no-till planted in tall fescue, September 1993. Photographed October 11, 1994.

- (3) Seedling vigor is excellent and much better than any other clover or alfalfa, making it easy to get good stands. A fine clover for no-till seeding into grass sods.

- (4) High forage yield potential. We have obtained yields of 2 to 4 tons/acre of dry red clover hay annually on prepared land.

- (5) Is adapted to a wide range of soils.

Adaptation and use of red clover

- (1) Plant on well-drained soil. Red clover will not be successful on poorly drained land.

- (2) Soil test and apply recommended rates of phosphorus and potassium. Very acid soil may need lime. Red clover has the potential for good production but will not achieve this with low soil fertility.

- (3) Plant a recommended variety of red clover.

- (4) Inoculate the seed with red clover inoculum.

- (5) Plant seed at a depth of 1/4 to 1/2 inch.

- (6) Can be planted on prepared land alone or with small grains or ryegrass.

Can be no-till planted in tall fescue, orchardgrass, bermudagrass or bahiagrass.

- (7) When grazing, leave 3 inches of growth. Close continuous grazing will reduce stands and yield. Rotational grazing will generally result in the greatest production. Cut hay when plants are in early bloom stage.

Varieties

There is a difference among red clover varieties! In south Georgia, Cherokee is a top choice because it makes more winter growth and has greater nematode resistance than other varieties. In trials at Eatonton and Tifton, Cherokee has generally made more early season growth than other varieties. However, in our trials at Athens, Blairsville, and Calhoun, Cherokee has not performed well as it is not cold hardy and there appear to be disease problems that greatly reduce stands by the second growing season. In northern Georgia, Kenstar has been outstanding in our trials. Other excellent varieties in this region are Acclaim, Cinnamon, and Redland III. Renegade has performed well the first year but stand losses have reduced second year production.

Planting on prepared land

Red clover can be planted in September with small grains and/or ryegrass to extend the grazing season or provide high quality hay in late spring and early summer. If planted on prepared land, a seeding rate of 8 to 12 lb/acre should be adequate.

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No-till seeding in tall fescue sods

The greatest potential use for red clover in Georgia is for no-till seeding in grass sods. Although rapid seed germination and excellent seedling vigor should result in good stands, planting failures occur. A few common sense management tips can reduce the risk of failure.

Red clover is especially useful for diluting the toxic effect of endophyte-infected tall fescue pastures as it continues to grow in the late spring and summer. In trials over 3 years at Blairsville and Calhoun, Redland III red clover drilled into closely mowed endophyte-infected tall fescue in September gave an average dry forage yield the following year of 7,300 lb/acre of which 4,000 lb/acre was red clover. Similar production followed the next year. Yields at Eatonton have been lower but red clover constitutes about one-half of the total production in tall fescue sods.

Planting trials done from September to March at Calhoun and Eatonton show that in the northern area, September, October, and early November are



Frank Newsome, Central Georgia Branch Station, Eatonton, showing good Redland III red clover no-till planted February 1994 as compared to tall fescue alone. Photographed July 28, 1995.

excellent times to plant with March also very good if a grass suppressant herbicide is applied. At Eatonton in central Georgia, fair stands have been obtained from all planting dates but October and November have been the best times for no-till drilling red clover into tall fescue. For fall planting, grass suppression with a

herbicide such as Gramoxone is not necessary but it is essential to closely mow or graze the sod before planting. Failure to remove old grass residue before planting is a common cause of stand failure in no-till planting. Drill 8-12 lb/acre of inoculated seed using a sodseeding machine to plant the seed at the proper depth and get good contact with the soil.

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 seed into the ground. Our experiments at Eatonton show that broadcast seeding in October is worthless but can be better if done in January or February on closely grazed tall fescue pastures. At Calhoun and Blairsville, broadcasting of seed in September has been about as good as February. Increase the seeding rate to 12-15 lb/acre.

No-till seeding in bermudagrass and bahiagrass sods

Drilling 8-12 lb/acre of inoculated red clover seed with a sodseeder into bermudagrass sod can furnish substantial late winter, spring, and early summer high-quality forage. Planting should not be done until after the grass is going dormant, usually October or November, depending on location. Several things are critical for success: (1) soil test and apply fertilizer as needed, (2) closely graze or mow off all old grass residue, and (3) if pygmy cricket damage is evident on clover seedlings, apply insecticide.

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