

Subterranean Clover Variety Test in Southeast Texas

G. W. EVERS

Summary

Newly released subterranean clover varieties from Australia were compared to mid- and late season commercial varieties under southeast Texas climatic and edaphic conditions. Larisa was the only new variety which produced significantly more forage than Mt. Barker. Meteora, Larisa, and Esperance were infected with clover yellow vein virus by early April.

Introduction

Subterranean clover has several desirable characteristics from the forage management standpoint. It has a relatively large seed and good seedling vigor in comparison to other cool season annual clovers. Its prostrate growth habit allows it to survive close defoliation and mismanagement by producers. Subterranean clover's ability to produce seed under grazing is also attractive. After several years of testing and evaluation, producers are beginning to establish subterranean clover in their pastures.

A variety trial was conducted at Angleton in southeast Texas to compare the performance and adaptability of the newer cultivars to Mt. Barker which is presently being grown (Table 1).

TABLE 1. FORAGE PRODUCTION OF SUBTERRANEAN CLOVERS AT ANGLETON DURING THE 1984-85 GROWING SEASON

Variety	Feb. 19	Mar. 25	Apr. 25	Total
	kg DM/ha			
Tallarook	1,842 ab ¹	2,377 abc	2,121 a	6,340 a
Larisa	1,917 ab	2,706 a	851 de	5,474 ab
Miss. Ecotype	1,416 ab	2,270 abc	1,609 b	5,295 bc
Woogenellup	1,622 ab	2,597 ab	1,037 cd	5,256 bc
Meteora	1,438 ab	2,579 ab	914 d	4,931 bcd
12720B (Beale)	2,028 a	2,270 abc	421 c	4,719 bcd
NR 327	1,589 ab	2,268 abc	756 de	4,613 bcd
Nangeela	1,257 b	2,111 abc	1,077 cd	4,445 cd
Esperance	1,557 ab	2,044 bc	674 de	4,275 d
Mt. Barker	1,276 ab	1,850 c	887 de	4,013 d

¹Yields within a column followed by the same letter are not significantly different at the 0.05 level, Duncan's Multiple Range Test.

Procedure

The study was established on October 2, 1984 at a seeding rate of 16 lb/A. Sixty lb/A of phosphorus was applied at planting. Experimental design was a randomized block with four replications. Plots were harvested with a flail mower at a 1-inch cutting height. Basagran and Fusilade were applied in November for broadleaf and grassy weed control, respectively.

Results and Discussion

Breeding line 12720B, Tallarook, and Larisa had the best production at the first harvest. The greatest dif-

ference in yield occurred at the last harvest which was due to maturity. The very poor performance of Mt. Barker was unusual. Production of Mt. Barker equalled or exceeded that of Larisa and Meteora in the past 2 years. Tallarook has always had the highest yield because of its late maturity.

Because of the evenly distributed annual rainfall, summer seed germination has been a problem with Mt. Barker and Woogenellup. Meteora should be ideal for the Upper Texas Gulf Coast because of its high hard seed content and late maturity. However, in early April, Meteora, Larisa, and Esperance were showing signs of a virus infection. Dr. Mike McLaughlin, forage pathologist at Mississippi State University, identified the virus as clover yellow vein virus. The virus did not appear to reduce forage production. Any affect on seed production and reseeding this fall has not been determined at this time. None of the other cultivars in the study showed signs of a virus infection.

Fertilizer-Clover Seed Contact Time on Clover Emergence and Growth

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Summary

Mixing clover seed with fertilizer would be a low-cost planting method if there were no toxic fertilizer effects to the inoculated clover seed. Fertilizer effect on clover seed was examined using three clovers, three inoculation techniques and nitrogen, phosphorus, and potassium fertilizers. Mixing clover seed with fertilizer for longer than 6 hours reduced germination and seedling vigor. Clover growth was reduced most by potassium, than phosphorus and least by nitrogen. Pelinoc-Pelgel inoculation method was superior to regular peat inoculant. Clover seed can be mixed with fertilizer for up to 6 hours if Pelinoc is used without harmful effects to clover growth.

Introduction

The most successful clover stands are obtained when the seed is drilled in the soil. However, planters capable of handling small clover seed are expensive and are not usually economical for the smaller forage producer. As an alternative, many producers have the fertilizer dealer mix the clover seed with the fertilizer which is broadcast on the pasture and harrowed in. However, there is a common feeling among soil and forage scientists that the acidic nature of fertilizer is detrimental to the rhizobia bacteria

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