FIELD DAY REPORT - 1993

Texas A&M University Agricultural Research and Extension Center at Overton

Texas Agricultural Experiment Station
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ESTABLISHMENT OF OVERTON R18 ROSE CLOVER

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Background. Rose clover (*Trifolium hirtum* All.) is new to the southeastern US. It has been grown on California rangelands since the late forties on a wide range of soil types from pH 5.5 to nearly 8.0. Iron deficiency chlorosis may become a problem as soil pH nears 8.0, and aluminum toxicity may be a problem at pH below 5.0. Rose clover is not adapted to poorly drained soils. It has good reseeding characteristics and grows in climates and soils too harsh for other clover species. Poor seedling growth is rose clover's main limitation.

'Overton R18' rose clover was released by the Texas Agricultural Experiment Station in 1991. Information on seeding rates and planting methods for rose clover in the southeastern U.S. is not available.

Research Findings. A rose clover establishment study was conducted at the Texas A&M University Agricultural Research and Extension Center at Overton to compare four planting methods and six seeding rates. Planting methods on a 'Coastal' bermudagrass sod were 1) broadcasting the seed, 2) drilling the seed, 3) desiccating the Coastal sod and drilling the seed, and 4) disking sod lightly, broadcasting the seed and dragging to cover the seed. Six seeding rates from 4 to 24 lb/ac were used. Rose clover seedling density (seedlings/16 $in.^2$) 6 weeks after planting increased with seeding rate (Fig. 1). Broadcasting the seed on the Coastal bermudagrass sod resulted in fewer seedings than the other planting methods at seeding rates of 8 lb/ac or higher. The study was harvested on 14 April and 3 June with the total yields reported in Fig. 2. The disk-broadcasting planting method produced the highest yields and the broadcasting method the lowest yields. Drilling the seed or desiccating the Coastal and then drilling were intermediate with drilling being slightly better.

Application. A summer grass sod should always be disked lightly when planting rose clover. The disk-broadcast planting method at 8 lb seed produced the same amount of forage as the broadcast only treatment with 20 lb seed. Drilling instead of broadcasting the seed after disking would probably work just as well. Overton R18 rose clover seed is expensive ($3-4/lb) at this time because of a limited seed supply. The most economical seeding rate at this seed price would be 4 to 8 lb/ac and then terminate grazing at bud stage (late April) to maximize seed production for a good volunteer stand the following year.

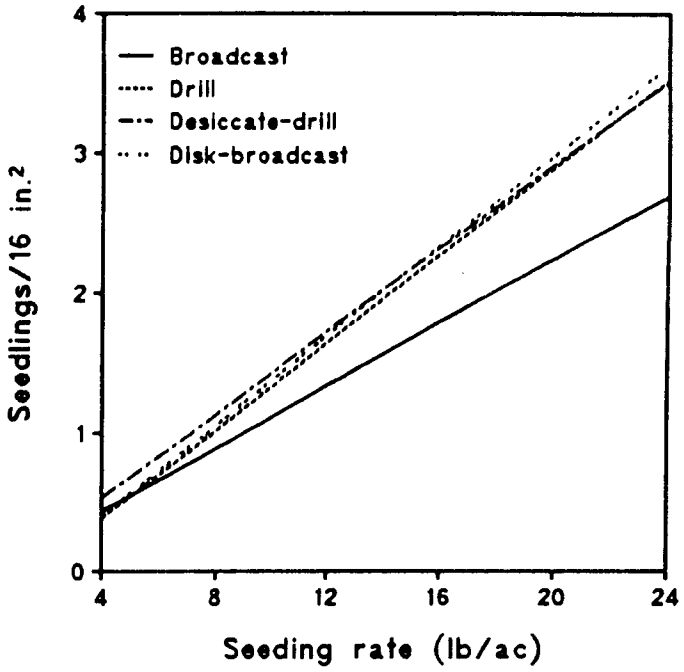

Figure 1. Overton R18 rose clover seedling density six weeks after planting with four planting methods and six seeding rates.

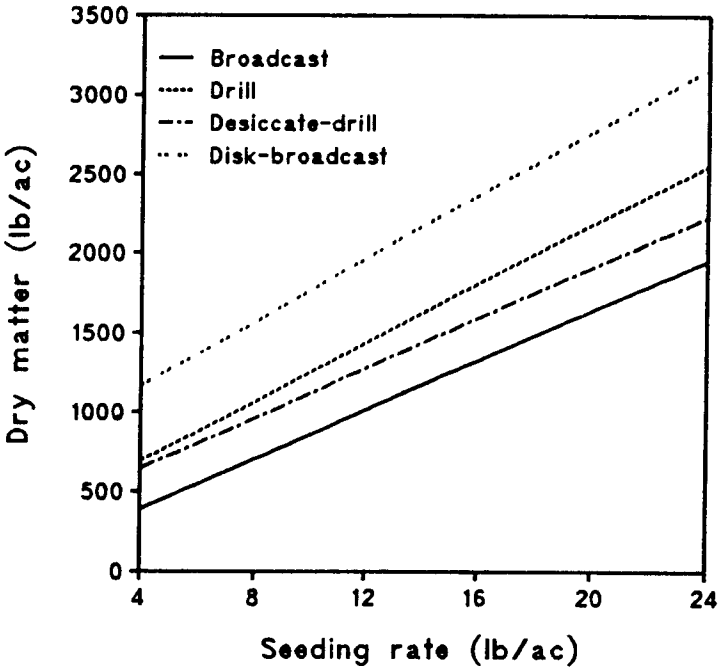

Figure 2. Influence of four planting methods and six seeding rates on Overton R18 rose clover forage production.