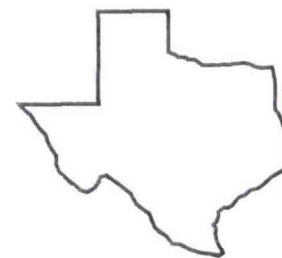
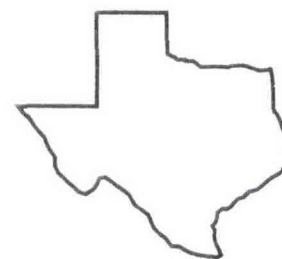
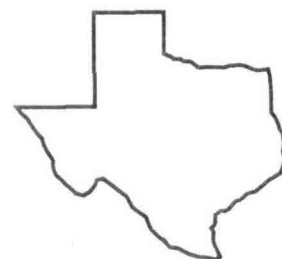
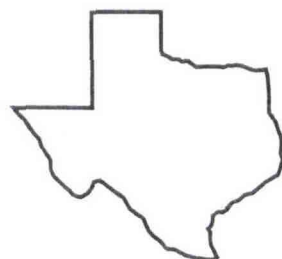
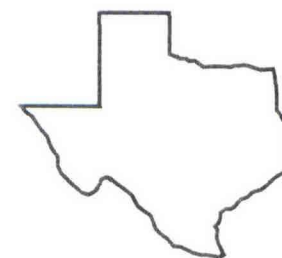




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## SEASONAL FORAGE PRODUCTION OF SOD-SEEDED CLOVER MIXTURES

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**Background.** Annual clovers are useful components of East Texas pasture systems but the productive growing season for an individual clover species is often short. Crimson clover produces forage early, usually in the months of March and April. Arrowleaf clover has a longer and later production season than crimson but does not grow rapidly in the early spring. Red and white clover are perennials that generally act like annuals under East Texas climate and soil conditions. Both red and white clover are most productive from late April to early June in East Texas. Ball clover grows rapidly in April and May but produces little forage before April. Forage production of rose clover is dependent on cultivar selection. Mixtures of two or more different clovers can be used to extend the forage legume growing season. The objective of this experiment was to determine seasonal distribution of forage yield from mixtures of two or more clovers.

**Research Findings.** 'Kenland' red clover, 'Dixie' crimson, 'Yuchi' arrowleaf, 'Regal' white, common ball clover, and sixteen clover mixtures were drilled into a 'Coastal' bermudagrass sod on 22 Oct. 1992. Treatments were arranged in a randomized complete block design with four replications. Fertilizer was applied prior to planting according to soil test recommendations (400 lbs/ac 0-20-20 and 1 lb/ac boron). A small plot drill with six double disk openers spaced 9 inches apart was used to place the clover seed 0.5 inch deep. Seed were inoculated with specific *Rhizobium* inoculant prior to planting. Plots containing only single clovers were planted at 14, 4, 20, 14, and 6 lbs of seed per acre for arrowleaf, ball, crimson, red, and white clover, respectively. All mixtures were planted with crimson clover at either 50% or 75% of the full seeding rate. Plots were harvested at about 3-week intervals beginning March 23 with a rotary mower set to cut 2.5 inches above ground level. Fresh weight of forage from each plot was recorded at each harvest date. Subsamples were also weighed at each harvest, dried at 140F for 48 hours, then weighed again to determine percentage dry matter. Dry forage yield per acre was calculated.

Dixie crimson alone or in mixtures produced the most forage at the first harvest (Fig. 1). Mixtures of crimson and Kenland red clover were very productive and gave good distributions of yield over the full season. Mixtures of crimson with Regal white clover resulted in lower yields at the last two harvests compared to the red clover mixtures. Mixtures with ball clover and Yuchi arrowleaf clover were not as productive as the mixtures with white and red clover.

**Application.** Mixtures of two or more clovers can result in more high quality forage available to grazing animals over a longer period of time. The best clover mixture evaluated in this one experiment was Dixie crimson and Kenland red clover, each planted at 75% seeding rates.

**Fig. 1 Clover mixtures sod-seeded in Coastal bermudagrass in 1992-93. Letter number combinations indicate clover species and percent of full seeding rate used.**

