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Improving Performance of Cattle Grazing Annual Winter Pasture in Florida

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As winter approaches, producers begin to prepare for the most nutritionally stressful segment of the production year. Preparation for the winter months in Florida involves stockpiling forages, hay production and storage, contracting of supplements and/or planting cool-season winter annual forages.

Ryegrass, perhaps the most popular winter annual forage for Florida, is usually planted from October I to November 15 (depending upon location). If adequate moisture is available, these forages will be available for grazing in late December or early January. These cool season forages, although highly digestible and good energy sources, can be protein deficient when grazed by growing cattle. The high non-protein nitrogen concentration in these forages is responsible for the 15-20 percent crude protein content. Recent research from other states and some earlier IFAS studies have demonstrated a positive and very economical response to natural protein supplementation by growing cattle grazing winter pastures.

During January to April 1988, a study was conducted at Ona to investigate methods of ryegrass planting and protein supplementation upon steer performance. Treatments included (1) ryegrass planted into a prepared seedbed, (2) ryegrass sod seeded into bahiagrass, (3) ryegrass planted into a prepared seedbed and dormant bahiagrass pasture (ryegrass + bahia) and (4) wheat planted into a prepared seedbed. Steers on the ryegrass and dormant bahia program grazed ryegrass eight hours per day and rotated to bahia pasture for the remainder of the day. All other pastures were continuously grazed during the 105 day experiment. Stocking rates were the same for all programs (3 head per acre; initial weight 480 pounds). The ryegrass and dormant bahia was six head per acre for the ryegrass portion but three head per acre overall.

Steers continuously grazing either wheat or ryegrass grown on a prepared seedbed produced the greatest gains (see Table). Steers grazing sod seeded ryegrass and ryegrass/bahia rotation exhibited lower gains but production costs should also be lower with less intensive systems. Protein supplement consisting of 65 percent cottonseed meal, 22 percent blood meal (an escape protein source), 10 percent corn meal and three percent salt was fed twice weekly at one pound per head per day. The response to natural protein supplementation was consistent across planting programs and species (see Table). The additional .3 pounds of gain for one pound of feed should be economically feasible. In addition, when considered over the entire season, protein supplementation could result in 30-40 pounds heavier calves coming off winter annual pasture. If this gain could be realized by yearling heifers, conception rates of those bred to calve at two years of age could be improved.

Response to Protein Supplementation by Steers Grazing Winter Annuals

	Average daily gain, pound		
Forage	**Control**	**Supplemented**	**Difference**
Ryegrass			
prepared seedbed	1.57	1.94	+.37
sod seeded	.94	1.21	+.27
Ryegrass + bahia	.84	1.16	+.32
Wheat			
prepared seedbed	1.65	1.98	+.33