



Management of stockpiled limpograss in South Florida

Joao 'Joe' Vendramini, Professor - Forage Management, UF/IFAS Range Cattle REC, Ona

Published in *The Florida Cattleman and Livestock Journal*, December 2023

Stockpiling forage is the main forage conservation procedure used in winter to reduce the need for supplemental feed and its associated cost in south Florida. In general, forage is stockpiled in the autumn for subsequent grazing during the winter months.

In addition to favorable weather conditions, south Florida is particularly suitable for stockpiling forage due to the presence of limpograss (*Hemarthria altissima*). Limpograss is a warm-season perennial grass adapted to poorly drained soils and superior growth during the winter months. In addition, limpograss usually maintains greater digestibility at late maturity than other warm-season grasses. The Forage Extension Laboratory at Ona has an extensive databank of warm-season grass digestibility and the average digestibility of limpograss (54%) is greater than bermudagrass (52%) and bahiagrass (50%).

The recommended management practices to stockpile limpograss in south Florida is to fertilize with 50-60 lb N/acre in late September or early October and defer the pasture from grazing for approximately 2 months. In general, the stockpiled pastures can be subsequently stocked with 1 cow-calf pair/acre for 3 months during the winter grazing season. A research project was conducted at Ona and observed that cows grazing stockpiled limpograss (1 cow-calf pair/acre) and receiving 5 lb of molasses supplementation had similar body weight gain, pregnancy rates, and weaning weights of cows grazing bahiagrass pasture and receiving 1200 lb of hay and 5 lb of molasses supplementation (Table 1). Considering the current cost of hay (approximately \$70 / 600 lb bale), the stockpiled limpograss pasture would have a \$140 value.

Although limpograss may have superior digestibility when compared to other warm-season perennial grasses, crude protein (CP) decreases substantially and may not meet the requirement of most livestock. Therefore, protein supplementation is necessary to maintain the productivity of the cow herd. A research project conducted at Ona tested the effects of different levels of crude protein supplementation or part-time grazing annual ryegrass (*Lolium multiflorum*) on heifers grazing stockpiled limpograss. There was a linear increase in average daily gain from 0.25 to 1.5 lb/d for heifers receiving from 0 to 5 lb of cottonseed meal/d. In addition, heifers grazing annual ryegrass three days per week (Monday, Wednesday, and Friday) had similar average daily gain to heifers receiving 5 lb cottonseed meal / d (1.5 lb/d). It was observed that grazing annual ryegrass part-time may be a feasible option if the annual ryegrass growing season lasts at least 3 months. An additional crude protein supplementation study with mature beef cows grazing stockpiled limpograss was conducted at Ona and observed that the source of crude protein (urea + feather meal or cottonseed meal) in the molasses did not affect

the performance of cows and calves grazing stockpiled limpograss. The cows were receiving 5 lb/d of molasses with 27% CP and 72% TDN.

It is important to mention that there is a significant variation in CP and digestibility of the stockpiled limpograss during the grazing season and the supplementation program should account for the variations in forage quantity and nutritive value. A study was conducted at Ona to evaluate the differences in plant height, herbage mass, and nutritive value of stockpiled limpograss during the winter grazing period (January to March). Pastures were grazed with 1 cow-calf pair/acre. Due to the greater forage mass, height, and leaf proportion at the start of the grazing season in January, the crude protein and digestibility of the stockpiled limpograss was 8.9 and 56%, respectively. As the cows grazed the upper portion of the canopy over time, the forage mass, forage height and the proportion of the leaves in the canopy decreased, decreasing the crude protein and digestibility to 6.0 and 42% respectively in March (Figure 1). Considering the use of the stockpiled pastures during a 3-month breeding season, it is important to adjust the supplementation levels to meet the cow's requirements to maintain adequate body condition and achieve desirable pregnancy rates.

There are some practical aspects of stockpiling limpograss that must be considered to increase the chances of success. Limpograss should not be stockpiled during the summer months due to potential infestation of spittlebugs and chinch bugs. Pastures must be used in the summer and maintained at approximately 10-15 inches stubble height to decrease the potential infestation. In addition, the forage accumulation during the stockpiling period is highly dependent on the weather conditions, primarily rainfall. Therefore, producers should have alternative conserved forage options and should not rely on stockpiling forage as the only source of forage for the winter. We have observed variation in herbage mass of stockpiled limpograss at the initiation of the grazing season from 3,000 to 8,000 lb DM/acre, which greatly impacted the stocking rates and duration of the grazing season. The variation in herbage mass was attributed to the amount of rainfall during the stockpiling period in the autumn months.

If you have any question about stockpiling limpograss for grazing in the winter months in south Florida, please contact Joao Vendramini jv@ufl.edu.

Upcoming Event

December 12, 11:00 – 11:45 a.m. Ona Agronomy Program Highlight webinar with Joao Vendramini "Stockpiled Forage for Cow-Calf Production in Florida." To attend in person, call 863-735-1001 to register or visit our website calendar for the registration link.

UF/IFAS Range Cattle REC - 3401 Experiment Station Rd., Ona - <http://rcrec-ona.ifas.ufl.edu/>

Table 1. Source of forage effects on cow and calf body weight and pregnancy rates.

Forage Source	Cow weight gain (lb)	Calf weaning weight (lb)	Pregnancy rates (%)
Stockpiled limpograss	-115	547	91.6
Bahiagrass pasture + hay	-88	535	92.2

Arthington and Pate (2002)



Figure 1. Grazing effects on pasture height of stockpiled limpograss grazed during the winter from January to March in Ona, FL.



Figure 2. Gibtuck limpograss stockpiled pasture in Okeechobee, FL.