ONA REPORTS

published in

THE FLORIDA CATTLEMAN AND LIVESTOCK JOURNAL

December - 2001

Early Calf Weaning Improves Cowherd Productivity

John Arthington
University of Florida, Range Cattle REC

For questions or comments regarding this publication contact
Dr. John Arthington

In the September issue of the Florida Cattlemen, we discussed the use of established Calf Nurseries for the rearing of early-weaned calves. In this article, we will provide the results of both cow and calf performance in last year's early weaning project.

Early weaning may be a practical and profitable management consideration for Florida cow/calf operations. In cows with adequate body condition, early weaning can reduce the post-partum anestrus period by 24 days. As early-weaned cows begin to stop lactating their dry matter intake decreases. This has been shown to decrease total digestible nutrient intake by as much as 45%. In any given year, the majority of females in a producer's "open" category are heifers and young cows. The use of early weaning will allow these females to regain their lost body condition, and do so with less forage and supplemental feed. As well, the decrease in post-partum interval means these females will become pregnant earlier in the upcoming breeding season and therefore produce calves that will be older and heavier at next year's weaning. Early weaning also has positive benefits beyond cow performance. Researchers from the University of Illinois have been investigating the effect of early weaning on carcass quality. They have reported that early weaning improves the percentage of calves grading USDA Choice or higher by over 30% compared to normal weaned calves. In a comparison of early weaning (90, 150, or 210 days), they found that calves weaned at 90 days tended to produce higher quality carcasses.

In our early-weaning system, calves are born in October and November and early weaned on January 1st, at an average age of 70 days. 'Jumbo' ryegrass is established on cultivated soil in mid-November. We prefer Jumbo because tests have shown it grows later (approx.

30 days) into the spring compared to 'Gulf'. Nitrogen is applied at emergence (50 lb/acre) and again on 45-day intervals. We can expect about 100 days of grazing lasting into late April or early May.

This past year we examined the effect of early weaning on cow and calf productivity. Early-weaned (EW) calves, reared in Calf Nurseries for 112 days, gained 0.41 lb more per day compared to normal-weaned (NW) calves left with their dams (1.89 and 1.48 lb/day for EW and NW, respectively). Once EW calves were moved onto summer limpograss pastures, their performance declined. From May 15 to weaning (August 6), EW calves had an ADG of 0.66 lb/day less than NW calves (1.21 and 1.81 lb/day for EW and NW, respectively). This decline in performance resulted in a higher overall ADG for NW compared to EW calves from January to August. These data would support the marketing of EW calves in late April or early May, once the Calf Nursery stops producing adequate ryegrass. Historically, calf markets are at their highest value this time of year.

Cow performance is improved by early weaning. In the current study, early weaning resulted in heavier cows (1074 and 982 lb/cow for EW and NW, respectively) that were in better body condition at the time of normal weaning (body condition score = 6.25 and 4.50 for EW and NW, respectively). This improvement in body condition was associated with a higher pregnancy rate for EW vs. NW cows (89.5 and 50.0% for EW and NW, respectively).

The use of early weaning is an effective management tool for optimizing reproductive performance of young cows. Our initial research indicates that early weaning will improve cow body condition by over 2 points (approx. 100 lb) resulting in a 30% improvement in pregnancy rate. When managing EW calves, the establishment of dedicated Calf Nurseries will provide Florida cattlemen with the ability to optimize early weaned calf performance, while capitalizing on low cost of gain and favorable spring markets.