

# APPLICATION OF SYSTEM CONCEPTS IN HEIFER DEVELOPMENT

**Ray Negus**

Sun Ag, Inc.  
Fellsmere, Florida

Due to the physical layout of our ranch, our heifers are developed on our poorest land. This is basically Argentine bahiagrass on sandy soils at a stocking rate of one heifer to 1.7 acres. A small amount of ryegrass is planted each Fall.

Heifers, as well as the main cow herd, are rotated every week to ten days, depending on the amount of forage available. All cattle are handled horseback, for we feel the cattle are checked better and moved in a more quiet manner.

Keeper heifers are dewormed, dehorned, and vaccinated at three to four months of age for Brucellosis, IBR, BVD, PI3, BRSV, and 8-way Blackleg. At seven months of age they are dewormed, deflucked, and revaccinated for these same diseases (except Brucellosis), plus vaccinated for Lepto and Vibrio. Heifers are also branded and re-dehorned if necessary.

Thirty days later, heifers are weaned on dry feed and hay. A liquid supplement is also made available so heifers will readily consume it when the dry feed is removed. In 1988 and 1989 this liquid supplement was a 16% protein molasses (all urea).

With the increased stocking rate and intensive grazing system our operation began in 1988, we realized how important it was to have our heifers calve as twos instead of threes.

Heifers in 1988 and 1989 were bred to small frame Black Angus bulls for 90 days. Of

the heifers that conceived, 90% calved unassisted and raised a calf. Seventy-five to 80% rebred. In 1990 heifers were bred to Red Angus bulls with low birth weight EPD's and weaning and yearling EPD's of +20 and +30. The breeding season was shortened to 60 days. These heifers will be pregnancy tested in April and results given at the Short Course.

Since some consideration is given to the bull's frame size or birth weight EPD's any heifer which is assisted in calving with a medium to hard pull is culled. Exceptions may be made if the calf is unusually large, breech birth, etc.

In spite of our efforts, the conception rates of our yearling heifers in 1988 and 1989 was only a disappointing 25 and 27% respectively. Two factors may be to blame: (1) 90% of these heifers were 1/2 to 3/4 Brahman, and (2) most importantly our nutritional level was too low. This is basically proven because these same heifers, when held over to be bred as twos, have conception rates of 90 to 95%.

In 1990 a 16% protein slurry mix was fed free choice from weaning until Spring, with consumption averaging 2 1/2 lbs per head per day. The main protein source was urea and feather meal. Seven pounds of hay per head per day was fed from December through March. One interesting observation is that the second calves of the heifers which calved as twos are exceptionally good.