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ECONOMICS OF THE ONCE DAILY SUCKLING
SYSTEM OF MANAGING FIRST CALF HEIFERS

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SUMMARY

This is an attempt to show the economic impact of using the once daily suckling technique on heifers with either limited or unlimited breeding seasons.

DISCUSSION

At Overton we have been working on a system where calves are penned at 30 days of age and the cows are allowed to graze freely, coming in to suckle their calves for one 30-45 minute period daily. The cows readily return to the calves and the training period rarely takes more than 2 to 3 days. Labor expended during this time amounts to approximately 1-1/2 hours daily. The period of limited suckling extends for 45 days and the calves are returned to their mothers for normal rearing at its end. As shown in the following table the postpartum interval is shortened by an average of 72 days in first calf heifers. These heifers were grazing well fertilized bermudagrass pastures throughout all the experiments.

In a county demonstration, Charles E. Murphey (County Extension Agent, Austin County) and Larry L. Boleman (Area Beef Cattle Specialist, Bryan, Texas) in cooperation with the Sartwelle Brahman Ranch, Seally, Texas, used the technique of once daily suckling on a group of 11 registered Brahman first and second calf heifers. The calves averaged 48 days of age at the beginning of the once daily suckling period. The average time from calving to first estrus was 67 days and from calving to pregnancy was 72 days. Weaning weights of the calves averaged 428 lbs. Pregnancy rate on the treated heifers was 91% compared to 83% on the entire cow herd.

In the following table and calculations the economics of using the technique are shown. Requirements are a dry, watered, calf tight pen near the pasture or lot for the heifers with creep feed and hay available for the calves. Labor averages about 1 hour daily for the 45 day period.

	SUCKLING	
	NORMAL	ONCE DAILY
Days from calving to heat (3 years data)	130	58
Days from 1st to 2nd calving (1 years data)	450	369

Assuming:

- 100 heifers bred in a 45 day season.
- All heifers having one or more chances to rebreed get pregnant.
- Calf weaning weights for the second calf are 400 lbs.

Calculations: Limited Breeding Season.

- Under normal suckling 57 out of 100 have one or more chances to rebreed = 57 pregnant.
- Under once daily suckling 93 out of 100 have one or more chances to rebreed = 93 pregnant.
- Forty-five hours labor cost per breeding season.

$$\begin{aligned}
 93-57 &= 36 \text{ additional calves in second year.} \\
 36 \times 400 &= 14,400 \text{ additional lbs of calf sales.} \\
 14,400 \times \$0.50/\text{lb} &= \$7,200 \text{ additional sales} \\
 \$7,200 \div 45 &= \$160/\text{hr return for labor on 100 heifers or} \\
 &= \$1.60/\text{hr return/heifer less creep costs} \\
 &= (\text{about } 1/2 \text{ lb/calf/day}).
 \end{aligned}$$

Calculations: Unlimited Breeding Season.

Assuming: \$0.50/day cost for keeping a cow.

$$\begin{aligned}
 450-369 &= 81 \text{ days saved between 1st and 2nd calf.} \\
 81 \times \$0.50 &= \$40.50 \text{ saved/heifer once daily suckled.} \\
 \$40.50 \div 45 \text{ hrs} &= \$0.90/\text{hr/heifer once daily suckled}
 \end{aligned}$$

# of heifers	1	2	3	4	5	6	7	8	9	10
\$ return/hr	.90	1.80	2.70	3.60	4.50	5.40	6.30	7.20	8.10	9.00

These calculations do not take into consideration losses in calf value due to late calves or costs of calf creep (about 1/2 lb/head/day).