Irrigated Pastures May Be a Good Investment

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This article purports to show that it may be more profitable for some cattle ranchers to change their customary operations so that there is less dependence upon public rangeland and a more efficient use of the base ranch for beef production.

The native ranges of the northwestern Great Basin and Modoc Plateau areas of California are generally quite deficient in terms of meeting cow-calf nutritional requirements from early July through summer and fall. The decrease in crude protein and carotene, as well as decreased digestibility of carbohydrates in the dryland forage after the seed heads begin to form on the perennial grasses, has a very adverse effect upon the growing calves. The milk production of the cows decreases significantly at a time when the calf's rumen is just beginning to function. The calf's growth rate is severely impaired by lack of milk and poor quality forage when the cow and calf are left on the native dryland forage after mid summer. Many weaner calves weigh less than 400 pounds at the end of the grazing season in September. With good quality forage throughout the summer and early fall, the average 6-months old calf should weigh over 450 pounds.

Substantial increases in income can be realized by increasing calving percentage and by increasing the weaning weights of calves. The author suggests that the average rancher can accomplish both by devoting a portion of the ranch to irrigated pasture for late summer and fall grazing and reducing acreage to hay production. Such a change, however, may require a reduction in the breeding herd.

The following assumptions show the possibility of increasing net income by changes in the use of resources on the base ranch:

**Example Operation A**

1) Breeding herd—600 cows and 30 bulls
2) Hay production—2 tons per animal unit at a cost of $50 a ton
3) Calving percentage—75
4) Grazing season on native rangeland—May 1 through September 30 at $1.89 per AUM
5) Average weaning weight of calves—375 pounds
   Base property used only for hay production for 600 cows
Cows, calves and bulls on public range 5 months each year:
   600 cows producing 450 calves
   Total weight of calves will be 168,750 pounds
   Calves at 50c a pound will gross $84,375
Cost of maintaining a breeding cow:
   7 months on base ranch @ 2 tons forage × $50/ton $100.00
   1/20 bull per cow for seven months 5.00
   Forage cost for cow and bull 105.00
   Cost for herd 600 times $105 63,000.00
Grazing fees on public lands:
   600 cows & calves plus 30 bulls 5,953.00
   630 AUs times 5 months × $1.89
   Cost of bulls at $500 replaced every 5 years 3,000.00
   Total costs 71,953.00
   Net income $84,375 minus $71,953 $12,422.00

**Example Operation B**

1) Breeding herd—400 cows and 20 bulls
2) Hay production—2 tons per animal unit at $50 a ton
3) Irrigated pasture production—1 ton of forage per animal at $35 per ton
4) Calving percentage—85
5) Grazing season on native rangeland—May 1 through July 15 at $1.89 per AUM
6) Average weaning weight of calves—450 pounds
   Base property used for hay and pasture production for 600 cows for 9.5 months each year. Cattle on public range 2.5 months each year.
   400 cows producing 340 calves
   Total weight of calves will be 153,000 pounds
   Calves at 50c a pound will gross $76,500
Cost of maintaining a breeding cow:
   9.5 months on base ranch 3 tons forage $45/ton $135.00
   1/20 bull per cow for 9.5 months 7.00
   Forage cost for cow and bull 142.00
   Cost for the herd 400 times $142 56,800.00
Grazing fees on public lands:
   400 cows & calves plus 20 bulls 1,985.00
   420 AUs times 2.5 months × $1.89 2,000.00
   Cost of bulls at $500 replaced every 5 years 60,785.00
   Total costs 155,715.00
Net income $76,500 minus $60,785 $15,715.00

**Conclusion:** The irrigated pasture program produces approximately $3,000 more annual net income.

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25 Years Ago

Royal G. Holl wrote a thesis on the "Ecology and Control of Halogeton in Idaho."

Garlyn O. Hoffman wrote a thesis on the "Photosensitization of Cattle in Texas."

Howard Clegg was selected as Utah's Top Rancher of the Year.

The Middle East Section was approved but later was dissolved. The petition was signed by 21 members from Libya, Egypt, Syria, Jordan, Lebanon, Iraq, Iran, Saudi Arabia, Afghanistan, and Pakistan. The Society heartily welcomed this international group of workers bonded together in their common interest in grazing land management.

*Editor's Note: These interesting economic situations were developed in the spring of 1979. By now there may have been some economic changes but the current situation should be proportionately true.*