The study had two objectives. One was to compare the economics of buying calves in the fall and feeding them for continuous growth. The second was to full supplement the cattle on pasture and sell them for slaughter. The cattle were sold in June as feeders so the second objective was not fulfilled.

## PLAN

This study was conducted on the Gerald Hall ranch in Capay. This ranch has a good barn and dry lot with water and feed bunks. The 35 acres of irrigated pasture is divided into four fields.

On September 23, 196190 head of 400 lb . choice calves were received. The calves were all from the same ranch and were primarily Hereford with some Angus-Hereford and Shorthorn-Hereford crosses.

The calves were fed in the dry lot for the first three weeks. They were sprayed for flies and grub control and fed an antibiotic supplement.

The starter ration fed per head per day was 1 lb . supplement containing 300 mg . antibiotic, 7 lbs. hay ( $1 / 2$ alfalfa, $1 / 2$ sudan).

Throughout the winter the calves were supplemented with 2 lbs . of concentrates plus all the hay they would eat. The calves had access to the pasture except when it was too wet.

When $1 / 3$ the hay was alfalfa or they had good pasture, the concentrate supplement consisted of:

| Rolled barley | Lbs. | Price | \$ |
| :---: | :---: | :---: | :---: |
|  | 35 | \$2.85 | 1.00 |
| Gr . almond hulls | s 45 | 1.325 | . 60 |
| Cottonseed meal | 13 | 3.50 | . 46 |
| Molasses | 7 | 1.55 | . 11 |
| Vitamin A 1 | mil. IU | . 14 | . 14 |
| Mixing |  | . 30 | . 30 |
|  | 100 | s. | \$2.61 |

When they were on sudan and oat hay with little or no pasture, this was the concentrate supplement.

| Rolled barley | Lbs. | Price | \$ |
| :---: | :---: | :---: | :---: |
|  | 30 | \$2.85 | . 86 |
| Gr. almond hulls | 30 | 1.325 | . 40 |
| Cottonseed meal | 30 | 3.50 | 1.05 |
| Molasses | 10 | 1.55 | . 16 |
| Vitamin A | 1 mil . IU | . 14 | . 14 |
| Mixing |  | . 30 | 30 |

Milo replaced barley when it was cheaper. Cottonseed meal, barley and almond hulls became more expensive as the season progressed.

The feed was mixed and delivered by Capay Feeds.

## OBSERVATIONS

1. Calves 600 lbs . and under were selling for $\$ 26.50$ to $\$ 27.75$ in late March. When all costs are considered, the winter program was a break-even deal. If labor on the ranch and the small amount of winter pasture are discounted, the winter program would have furnished calves for 2 c per 1 b . cheaper than buying them in March.
2. The light weaner calves made economical gains during the winter when fed coarse hay with 2 lbs. of supplement.
3. The calves gained well on pasture and were fleshy when sold.
4. Yearlings in June were selling for $\$ 24.50$. At this figure the profit per head was only $\$ .97$. If non-cash costs are deducted (labor and $1 / 2$ pasture cost), income was $\$ 16.47$ per head. Ninety head on 35 acres at $\$ 16.47$ per head is $\$ 42.35$ per acre for less than half the pasture season.

## WINTER PERIOD

alves bought September 23, 1961 fauling

Feed - September 23 to April 3
Antibiotic mix
Concentrate supplement
Hay $=$ Sudan $\$ 16 /$ ton
$\quad$ Alfalfa $\$ 21 /$ ton
Oat $\$ 18 /$ ton
Pasture -2 mo. equivalent @ $\$ 3.00$

Calf weight - April 3
581
Gain and cost per cwt.
Labor - 4 hours @ \$1.50
6.00

Interest $-6 \%$ of $\$ 115-6$ months 3.45
Taxes
Veterinarian and supplies
Death 1oss* - 1\% of \$115

Total winter period cost
Break-even on 581 lb 。calf
Break-even with labor and pasture out
SPRTNG PASTURE PERIOD
Calves from winter period
Feed - April 3 to June 18 Oat hay
Pasture - 2 $\frac{1}{2}$ mo. @ $\$ 4.00$

Calf shrunk weight June 18
Gain and cost per cwt.
Labor - 1 hour @ \$1.50
581

| 133 |
| :--- |
| -- |
| 133 |
| 717 |
| 136 |

1.50
10.00
$\$ 159.74$

Interest $=6 \%$ of $\$ 115-2 \frac{1}{2}$ months
Veterinarian and supplies
1.43

Death loss* - . $5 \%$ of $\$ 115$

Total spring pasture period cost

Lbs
413

| 396.4 | 11.16 | 2.06 | .003 |
| ---: | ---: | ---: | ---: |
| 1662.6 | 14.91 | 8.66 | .078 |
|  |  |  |  |
| $\frac{--}{2059.0}$ | $\frac{6.00}{\$ 32.65}$ | $\frac{--}{10.72}$ | $\frac{.109}{\$ .248}$ |

Lbs./head \$/head per day per day $\$ / \mathrm{cwt}$. $\$ 26.10$
$\frac{1.40}{\$ 27.50}$
\$19.43
\$27.50
\$25.43
$\$ 27.50$
\$ 8.20
1.79
$\$ .015$
.133
$\$ .148$
1.7
$\frac{--}{1.75}$
.
$-2$



Break-even on 717 1b, calf
\$24.36
Break-even with 1 abor and pasture out

* No death loss occurred in this study, but for averages it should be considered.

Monte Bel1, Glenn County Farm Advisor
Orland, California
July, 1962 - 75 Copies

