

Solano Co

Summary of Production Data

Length of 1966 Pasture Feeding Period - 240 days (March 18 - November 12)

| | |
|---|---------------|
| Total Cattle Head Days Supplied | 34,645 |
| Total Cattle Gain | 50,545 pounds |
| Average "Gain" per Head Day | 1.46 pounds |
| Average Stocker Steer Stocking Rate/Acre | 2.03 |
| Average "Out" Weight per Stocker Steer | 732.5 pounds |
| Average "In" Weight per Stocker Steer | 523.2 pounds |
| Average "Gain" per Stocker Steer | 209.3 pounds |
| *Total Cattle Gain Per Acre | 711.9 pounds |
| Total Number Feeder and Replacement Lambs Fed | 91.0 |
| Average "Gain" per lamb | 39.1 pounds |
| **Total Lamb Gain per Acre | 50.1 pounds |
| Total Cattle and Lamb Gain per Acre | 762.0 pounds |

*These gain figures were based on actual scale weights taken at the public auction sales. Home ranch weights, made after a short drive from pasture were given a 3% pencil shrink. All gains are on an unsupplemented basis and represent "saleable" pounds produced. No credit was given the pasture for three steers that died on pasture, or for one 4-H steer and one steer eaten at home. A total of 259 calves were handled, so the death loss amounted to 1.15%

**Sheep gains reported are only those of the lambs. No credit is given for weight gains or wool from 33 ewes that pastured from March 20, 1966 to June 15, 1966 with their 38 lambs.

CONCLUSIONS

This was a very excellent yield, the best yet recorded in the Farm Advisors Office for a Solano County pasture. To be sure, it reflected the extra long grazing season enjoyed in 1966, as well as the relatively young pasture age. However, such returns as these are evidence that irrigated pasture can produce a decent gross income potential if properly handled. It helps explain the reason for the shift to feeding cattle instead of sheep.

Cattle graze less selectively than sheep and make leaner gains. This probably results in more pounds of gain per acre than can be achieved from lambs alone.

ADDITIONAL GAIN PER HEAD DAY INFORMATION

A study involving 26 head of stocker steer calves, taken as a random sample from a group of 166 head was run on an old pasture west of Hastings Island. Each calf was individually eartagged and weighed on a portable scale at the beginning and end of the study period. The calves were mostly straight Hereford or Hereford-Angus Cross. A small amount of hay, cut in the spring from the pasture, was fed starting July 1. This was estimated at five 120 pound bales per day. The following data was secured:

| | |
|--|--------------|
| Length of Study Period (May 27, 1966 - September 28, 1966) | 124 days |
| Average "Out" Weight per Steer | 865.6 pounds |
| Average "In" Weight Per Steer | 677.1 pounds |
| Average "Gain" Weight per Steer | 188.5 pounds |
| Average Gain per Head Day | 1.52 pounds |

No records were available on the acreage available to these calves, since there were other cattle coming and going on the pasture besides the 166 head, and all the cattle were rotated around the pasture. This prevented any estimate of total gains per acre.

A spot check of a 29 day grazing period was made on 81 head of predominately Hereford steers on a two year old 30 acre Salina Clover-Birdsfoot Trefoil pasture at Cordelia. The cattle were driven about one mile to the scales and weighed at 7:30 A.M. The following data was obtained:

| | |
|--|--------------|
| Study Period (April 20, 1966 - May 19, 1966) | 29 days |
| Number of Calves per acre | 2.7 |
| Average "Out" Weight per Steer | 717.0 pounds |
| Average "In" Weight per Steer | 669.6 pounds |
| Average "Gain" per Steer | 47.4 pounds |
| Average "Gain" per Head Day | 1.63 pounds |
| Total Gain per Acre per Day | 4.4 pounds |

Again, no estimate was possible of the total gain per acre within the limitation of this check. However, a pattern is emerging on head day gain. All three checks had a range of head day averages running from 1.46 pounds to 1.63 pounds. This is a relatively narrow range, considering differences in age of pasture, stocking rates and location.

SAMPLE COST OF PRODUCTION

(Revised 1967)

Costs of irrigated pasture vary with purchase prices of land, levelling requirements, water source, taxes, fertilization practices, etc., so no one sample cost can do more than illustrate a possible situation and suggest a means of figuring costs in other situations by changing the amounts as they are indicated. The following figures are based on per acre costs:

Interest on depreciable items is figured at 1/2 the original cost each year. As this represents the average value from full value at the start of depreciation to nothing at the end. 6% interest rate was arbitrarily selected - others may consider a different value more realistic.

| OVERHEAD | COST | LIFE EXPECT- ANCY YEARS | DEPRECIA- TION | INTEREST AT 6% ON 1/2 COST | MY OWN COST |
|---|-----------------|----------------------------|---|----------------------------------|---------------------------|
| Land (Including Barns and Corrals) | \$300.00 | | | \$18.00* | _____ |
| Grading (Including Irrigation and Drainage Ditches) | 125.00 | | | 7.50* | _____ |
| Fences (Including Border and Cross) | 21.00 | 20 | \$1.05 | 0.63 | _____ |
| Turnout Gates | 2.50 | 10 | 0.25 | 0.08 | _____ |
| Stock Water Facilities | 2.50 | 20 | 0.12 | 0.08 | _____ |
| Pasture Stand (Including Seed, Seeding and Irrigating Up) | 20.00 | 7 | 2.86 | 0.60 | _____ |
| Tillage Equipment | | | | | |
| Tractor | 9.85 | 10 | 0.99 | 0.30 | _____ |
| Mower | 1.58 | 10 | 0.16 | 0.05 | _____ |
| Pickup Truck | 7.88 | 10 | 0.79 | 0.24 | _____ |
| Miscellaneous (Shovels, etc.) | 0.79 | 10 | 0.08 | 0.02 | _____ |
| TOTAL INITIAL INVESTMENT COSTS PER ACRE | \$491.10 | | TOTAL ANNUAL DEPRECIATION PER ACRE | \$6.30 | TOTAL INTEREST |
| | | | | \$27.50 | |

*Interest at full cost because land and levelling costs are not considered depreciable items.

Total Overhead (Including Interest and Depreciation) \$33.80

ANNUAL CULTURAL COSTS

CASH AND LABOR COSTS---

| | | |
|--|----------------|----------------|
| Irrigate 16 times @ 1/2 hour @ \$1.50 | \$12.00 | _____ |
| Water - 4 Acre feet @ \$5.19 (estimated) | 20.76 | _____ |
| Fertilizer - 22 pounds P (50 pounds P ₂ O ₅) (est.) | 5.00 | _____ |
| Mow 3 times @ 1/2 hour @ \$3.00 | 4.50 | _____ |
| Ditch Work and Fence Repair | 1.00 | _____ |
| Miscellaneous Labor and Truck Use | 1.00 | _____ |
| Taxes (estimated) - \$6.00/100 @ \$150.00 | 9.00 | _____ |
| Total Cash and Labor | \$53.26 | _____ |
| TOTAL COSTS, INCLUDING OVERHEAD AND CASH AND LABOR | \$87.06 | \$87.06 |

EFFECT OF N & P FERTILIZERS ON YIELD OF IRRIGATED PASTURE

Harolson - Solano County - 1956

Expressed as lbs. dry weight per Acre

| <u>Date of Cutting</u> | <u>Yields of Forage per Acre with</u> | | | | <u>Average Increase due to N</u> |
|------------------------|---------------------------------------|------------------------|------------------------|---------------------------------------|----------------------------------|
| | <u>Ck.</u> | <u>P₁₀₀</u> | <u>N₁₅₀</u> | <u>N₁₅₀P₁₀₀</u> | |
| April 26 | 1121 | 1251 | 2102* | 2284* | 1007 |
| June 5 | 781 | 723 | 939 | 896 | 116 |
| July 11 | 647 | 535 | 785 | 699 | 151 |
| August 29 | 523 | 463 | 669 | 757 | 220 |
| October 4 | 493 | 305 | 531 | 554 | 144 |
| Total | 3563 | 3277 | 5026* | 5190* | 1688 |

* Significantly better than check or P₁₀₀ treatments