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Steam Rolled Barley With and Without Hay for Fattening

On April 29, 1960, thirty yearling heifers that had been wintered alike were divided as evenly as possible into six lots. Duplicate lots were fed steam rolled barley in self-feeder, steam rolled barley 12 pounds per head plus crested wheatgrass hay 4 pounds per head, and steam rolled barley 6 pounds per head plus crested wheatgrass hay 10 pounds per head. All lots received 1 pound per head of special mineral and vitamin supplement. In order to even up the protein content of all rations, one-half pound of soybean meal was added per head for those receiving six pounds of barley.

A period of two weeks was allowed to bring the heifers up gradually in barley consumption to 12 pounds per day. Hay was decreased as barley was increased. In spite of our precautions, one heifer became ill May 12, with symptoms that suggested acute poisoning. All feeds were tested for poison content and found negative. The sick heifer responded very slowly to treatment with antibiotics and digestion aids. She began to eat hay again, but would not eat barley, so was turned out to pasture June 8 weighing 455 pounds. On October 31, she was brought in from pasture weighing 460 pounds. It is our opinion that she will never recover from the effects of over-eating rolled barley. A steer in another lot suffered a less serious illness of similar nature.

Later in the feeding period, some of the animals became stiff and sore-footed. It is not known whether the stiffness was the result of over-eating or deficiency of Vitamin A., or both. The supplement used in all lots was custom-made, according to an ever-changing formula. It was fed in either pelleted or loose form, and was never fully satisfactory, in that the cattle did not eat it well in some lots.

The supplements were mixed as follows:

| First Mix | Final Mix | | | |
|-----------|-----------|--|--|--|
| | | | | |

| Ground Alfalfa Hay | 360 | 350 | |
|--------------------|-------------------|-----------------|--|
| Ground Barley | 250 | 0 | |
| Ground Corn | 0 | 243 | |
| Soybean Meal | 210 | 200 | |
| Steamed Bonemeal | 65 | 62 | |
| Ground Limestone | 25 | 25 | |
| Trace Mineral Salt | 90 | 20 | |
| Molasses | 0 | 100 | |
| Vitamin D | 1.0 Million Units | 1 Million Units | |
| Vitamin A | 1.5 Million Units | 5 Million Units | |

| Table 10. Steam Rolled Barley, with and without Hay for Yearling Heifers | | | | | | |
|--|----------|-------|----------|-------|----------|--------|
| | Lot 6 | Lot 7 | Lot 8 | Lot 9 | Lot 10 | Lot 11 |
| | Self-fed | | Hand-fed | | Hand-fed | |
| No. Head/lot | 5 | 5 | 5 | 5 | 5 | 5 |
| Initial Wt. | 567 | 569 | 568 | 567 | 568 | 567 |
| Final Wt. | 905 | 859 | 895 | 869 | 857 | 858 |
| Av. D. Gain | 2.21 | 1.90 | 1.81 | 1.67 | 1.60 | 1.61 |
| Days on Feed | 153 | 153 | 181 | 181 | 181 | 181 |

| Daily Ration: | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|
| Steam Rolled Barley | 14.75 | 14.30 | 11.78 | 11.78 | 6.00 | 6.00 |
| Crested Wht. Hay | .76 | .76 | 4.17 | 4.16 | 9.76 | 9.76 |
| Vit & Min Supp. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Soybean Meal | | | | | .50 | .50 |
| Feed Per 100 Gain: | | | | | | |
| Steam Rolled Barley | 667 | 755 | 652 | 706 | 376 | 373 |
| Crested Wht. Hay | 32 | 44 | 231 | 249 | 610 | 608 |
| Vit & Min Supp. | 45 | 51 | 55 | 60 | 63 | 62 |
| Soybean Meal | | | | | 31 | 31 |
| Feed Cost/100 Gain | \$12.98 | \$14.76 | \$14.81 | \$16.04 | \$15.01 | \$14.91 |
| Selling Price/100 | \$20.70 | \$20.70 | \$21.30 | \$21.48 | \$20.90 | \$20.90 |

Feed Prices Used: Barley was priced at 72 cents per bushel plus 20 cents per Cwt. rolling hay was priced at \$18.00 per ton; supplement at \$60.00 per ton, and soybean meal at \$80.00 per ton.

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