

## **ABSTRACTS OF RESEARCH IN ANIMAL HUSBANDRY**

### **Wintering Beef Cows**

The fifth consecutive year of results from wintering beef breeding cows on normal and below normal (3/4) rations of corn silage and hay, with and without soybean oilmeal is presented. A five year summary of the work gives these indications:

1. Native prairie hay and tame hay of crested wheat grass and brome grass have about equal value when fed with corn silage to constitute about half the dry matter of the ration.
2. The percentage of cows calving and raising calves is about the same regardless of level or type of winter ration.
3. Average birth weight of calves is slightly higher in lots where cows receive the higher or normal ration.
4. Weaning weights are about 30 lbs. per calf higher from the well-wintered lots of cows. For 2 consecutive years, the heaviest average weaning weight has come from the normal level lot which received soybean oilmeal at .8 lbs. per cow per day during the winter.
5. The normal ration of 30 lbs. corn silage and 10 lbs. hay allows cows to gain an average of 11 to 32 lbs. per head from November 1 to about May 1. The low level rations, 3/4 of above, result in body weight losses averaging 60-69 lbs. per cow over winter.

### **Wintering Beef Calves**

Five years of data on wintering beef calves show that calves wintered on an average daily ration of 25 lbs. corn silage, 4 lbs. crested wheat grass and brome grass hay, and 2 lbs. oats gained twice as much per day (.979 lbs to .486 lbs) as calves wintered on 20 lbs. corn silage and 4 lbs. of the same type tame grass hay. When the wintering period was followed by summer grazing, the lighter calves outgained the heavier calves on grass (1.349 lbs. to

1.087 lbs) per day. On November 1, one year after weaning, the better wintered calves outweighed the lightly wintered calves by about 49 lbs. per head.

### **Fattening Yearling Steers, Open Heifers and Spayed Heifers**

One trial is reported which compared steers, open heifers and spayed heifers during a 162 day finishing period on a maximum feed of corn silage plus limited grain, hay, and protein supplements, after all animals had been wintered together to make maximum growth on about the same ration. The average daily gain and cost per 100 lbs. gain for the 3 lots listed above were: 1.78 lbs.-\$21.94, 1.66 lbs.-\$22.44, and 1.46 lbs.-\$25.57. The spayed heifers did outgain the open heifers during the final month of the feeding period. The slight (.80 per cwt.) advantage in selling price of spayed heifers over open heifers was not nearly enough to justify the relatively poor gains of the spayed heifers.

### **Early Spring Pasture for Yearling Steers**

Steers on crested wheat grass and alfalfa pasture gained over 40% more in a 50 day grazing period than steers on crested wheat grass pasture. The grass legumes mixture produced 42% more beef per acre than grass pasture alone. No bloat was experienced in the first years trial.

### **Fattening Yearling Steers on High Silage Rations**

Four lots of 10 yearling steers each were full-fed corn silage with varying supplements from October 15, 1954 to March 17, 1955, then sold by lots. Dressing percents and carcass grades were secured. The best gaining, highest grading and selling lot was fed silage plus 2  $\frac{21}{11}$  lbs. of alfalfa hay, 2 lbs. soybean oilmeal, .2 lbs. steamed bonemeal, and .07 lb. trace mineralized salt. Four lbs. of ground barley and oats was added after the initial 60 days on feed. The most economical gaining lot and second highest lot in rate of gain and carcass grade was fed the same as above lot for the initial 60 days, after which the soybean oilmeal was reduced to 1  $\frac{21}{11}$  lbs. and 1 lb. of grain was added. Carcasses graded good and choice. Grades were affected by the yellow color of fat which probably could be traced to the high corn silage content of the ration.

### **B-Vitamin Concentrate Added to a Pelleted Barley and Oats ration for Pigs on Pasture.**

Six lots of 6 pigs each were used in duplicates to test a basal barley & oats ration, the basal ration plus 2 lbs. of Lederles 2-49c Fortafeed per ton, and the basal ration plus 4 lbs. of the same Fortafeed per ton. One lot of pigs on each ration consisted of 67 lb. pigs initially, and the other lot consisted of 35 lb. pigs initially. The three lots of heavy pigs gained 1.61, 1.67 and 1.71 lbs. per day on basal ration, basal plus 2 lbs. Fortafeed per ton, and basal plus 4 lbs. Fortafeed per ton respectively. The lighter pigs made daily gains of 1.30, 1.28, and 1.48 lbs. on these same rations. The basal ration may have been inadequate for the lighter pigs and this deficiency was partially corrected by the addition of Fortafeed at 4 lbs. per ton. Gain stimulation in the lots of larger pigs from addition of Fortafeed were not significant.

### **Rape and Oats Pasture vs Dry lot for Fattening Pigs**

Using four lots of pigs on the same pelleted ration, it was learned that pigs in dry lot require about 8 to 10% more feed to make 100 lbs. gain than pigs on rape and oats pasture. Pigs that went on feed at 67 lbs. average weight gained faster in dry lot, 1.65 lbs to 1.38 lbs., than those on pasture. The smaller pigs going on feed at 35 lbs. gained faster on pasture, 1.35 lbs. than in dry lot, 1.24 lbs. It may be possible that the ration was not quite adequate for the smaller pigs in dry lot, and this inadequacy was made up by the forage consumed by pastured pigs.

### **B-Vitamin and Aureomycin Supplements for Fattening Pigs in Winter.**

Lederle's 2-49c Fortafeed added to a ground barley and oats ration at 2 lbs. per ton, and Lederle's Auofac added to the same basal ration at 6 lbs. per ton failed to stimulate gains or improve feed efficiency, either alone or combined, in one experiment. Though both supplements appeared to stimulate gains during the first month of the fattening period, the trend was reversed during the last month.

### **Town Grind vs Home Grind for Fattening Pigs.**

Two trials gave inconclusive results in comparing gains of pigs when fed a medium-coarse barley and oats ration that was hammer mill ground with a medium-fine like ration custom ground on a bur mill. There was a consistent saving of about 10% in pounds of feed required to produce 100 lbs. of gain; the saving in favor of the custom bur mill.

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**[Back to 1955 Research Reports Table of Contents](#)**

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