

Summer Weight Gain

Brafords, Herefords compared for seasonal gains in Imperial Valley

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Brafords gained more during the summer in tests at the Imperial Valley Field Station; yielded more meat when slaughtered but usually brought a little less money per pound than Herefords.

Most of the data obtained in the tests indicate that the Brafords do not grade out quite as high as Herefords do when both are fed similar rations for the same length of time. Brafords and Herefords usually make excellent gains on the Imperial Valley's spring pasture and during early summer, but show a drop in daily gain during August when both days and nights are extremely hot.

Several tests were conducted over a three-year period to determine the rates of gain of Hereford and Braford cattle during the different seasons of the year at the Imperial Valley Field Station of the University of California.

Six Hereford steers, six Hereford heifers, six Braford steers, and six Braford heifers were purchased in Bakersfield and received at the station on December 7, 1948. All the calves were from good grade Hereford cows. The animals were fed as a group, so comparative food consumption rates on the four lots are not available but feed records on the whole lot were kept.

Cold weather and muddy pastures

made it necessary for the animals to be fed in the dry lot from December 7 to March 4. During that period all groups made good gains; the average daily gain for the four lots was 1.47 pounds per head per day. The ration for this phase of the test was mostly alfalfa hay with a little grain hay.

During the pasture season, the animals were on good alfalfa pasture and received about 3.5 pounds of alfalfa and grain hay per head per day.

The Braford steers gained 2.15 pounds per head per day during the spring pasture period—March 5 to June 13—while the Hereford steers gained 1.82 pounds. Summer pasture gains—June 14 to September 14—for the Braford steers averaged 2.05 pounds per head per day while the Herefords gained an average of 1.58 pounds.

Although the summer gains for all lots are good, there was a drop in daily gain from August 5 to September 14. During this period both the days and the nights were hot.

Hereford and Braford steers made an average daily gain of 2.03 pounds and 2.60 pounds respectively, from June 14 to August 4 but gained only 1.02 pounds and 1.35 pounds during the August and September period. All lots made good

gains during the 37-day grain feeding period.

The test animals were shipped to the Los Angeles Union Stock Yards on October 23 and sold by lots on October 24. The Hereford steers brought 26 $\frac{1}{2}$ ¢ per pound and the Braford steers 25 $\frac{1}{4}$ ¢ per pound, while the heifer lots were both sold for 24¢ per pound. Dressing percentages for the Brafords were 2% to 4% higher than the Herefords. Other data collected has shown this same difference.

Animals on good alfalfa pasture in the valley make excellent gains and do well during the first part of the summer. There is a definite drop in gains during the latter part of the summer in both Braford and Hereford cattle. The Braford steers made 0.5 pounds more gain per pound during the summer—June 14 to September 14—than the Hereford steers.

Other summer tests have shown differences in daily gains between Brafords and Herefords to range from 0.4 to 1.1 pounds. During the summer, different groups of Herefords on good pasture, with shade, water, and a little hay during the day have gained 0.8 pound to 1.58 pounds per day.

The Herefords that gained 0.8 pound per day were brought into the valley during July. Observations indicate that Herefords will do better if they are brought into the valley during the spring and are permitted to become adjusted to the hot weather gradually. Consideration should be given to selecting Herefords from warmer areas for summer feeding rather than from our cooler states such as Colorado and Montana.

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IRRIGATION

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in plot *A* were 43 square centimeters—the largest—and were 21 square centimeters in plot *D*—the smallest. The gains in treatment *A* were significantly larger than in *B*, *C*, and *D* while those in *D* were significantly smaller than the other three. The differences between *B* and *C* were not significant.

The responses to the change in irrigation were noticeable in increases in growth the first year after differential treatment was started but did not appear in yields until the second year. The trends in both cases have continued through 1950.

Results

The results obtained from treatment *A*, which did not reach the permanent wilting percentage at any time, showed con-

sistently good production and growth during the test.

Treatment *B*, which reached the permanent wilting percentage and remained there for a short period before being irrigated, produced slightly less than treatment *A* but the difference in cumulative yields between *A* and *B* was not significant. The gains in cross-section of *B*, however, were significantly less than those of *A*.

The irrigation treatment of *B* has apparently been adequate as far as yields are concerned, but increase in growth was less than in *A* because of the drought during the picking season.

Treatment *C*, with only a single irrigation, had significantly smaller cumulative yields than either *A* or *B* and grew less than *A*.

Treatment *D* with no irrigation is far below the other three treatments both in yield and growth.

A short period without readily avail-

able moisture as occurred in treatment *B* apparently did not affect the crop which was essentially mature before the dry soil conditions prevailed, but did affect the increase in growth which was not completed before the readily available moisture was exhausted.

Treatment *C*, although it bore and grew fairly well, shows that one irrigation, under conditions of this experiment was not enough for best results. On the average, treatment *C* was without available soil moisture after early September.

Treatment *D* responded by low yields and a relatively small amount of new growth.

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