

EARLIER CALVES ARE HEAVIER CALVES

W. H. JOHNSON • J. T. ELINGS

CATTLEMEN HAVE OBSERVED that calves dropped early in the calving season are heavier at weaning and more profitable than calves dropped late in the calving season. Animal scientists have pointed out that weaning weight is the result of age at weaning and average daily gain from birth to weaning. Actual differences under California annual range grazing conditions have not been reported in any detail.

This study was made to determine the effect month of birth had on preweaning average daily gain, 205-day adjusted weaning weight, and actual weaning weight. The results also show the effect of age on actual weaning weights. The study included weaning records of 3,057 Hereford bull and heifer calves from a single registered herd in northern California. The records were analyzed to determine preweaning rate of gain of calves by month of birth. The records covered a span of 24 years (1942-1965 inclusive). The 24-year period included a great variety of range feed conditions, from poor to excellent, depending on the year. All calves ranging in age from six through 10 months (180 to 292 days) at weaning (with complete records) were included.

Actual weaning weights were recorded from the scales as the calves were individually weighed at weaning. Average daily gain and 205-day adjusted weights were calculated from those actual weaning weights.

Range forage begins with fall rains in October and November; it is deficient

in protein and energy content through the fall and early winter, and usually becomes strong enough to produce satisfactory weight gains sometime in February. The feed matures and dries during May. Cattle are moved from the range to irrigated pastures in May, and stay on these pastures until November when they return to the range. During the fall months cows are observed to lose

TABLE 1. MONTH OF BIRTH AND AVERAGE DAILY GAIN FROM BIRTH TO WEANING (ALL CALVES)

Mo. of birth	No. calves	ADG birth to wean	Adjusted 205-day weight
		lbs.	lbs.
Oct.	120	2.16	513
Nov.	412	2.22	525
Dec.	390	2.17	515
Jan.	671	2.16	513
Feb.	396	2.20	521
Mar.	517	2.18	517
Apr.	343	2.01	482
May	158	2.06	492

TABLE 2. ACTUAL WEANING WEIGHT OF JUNE WEANERS 10 YEAR AVERAGE OF BULLS AND HEIFERS

Mo. of birth	No. of calves	ADG to weaning*	Wean weight
		lbs.	lbs.
Oct.	117	2.16	518
Nov.	427	2.22	495
Dec.	236	2.17	464

* From 24-year record.

TABLE 3. ACTUAL WEANING WEIGHT OF OCTOBER WEANERS 10 YEAR AVERAGE OF BULLS AND HEIFERS

Mo. of birth	No. of calves	ADG to weaning*	Wean weight
		lbs.	lbs.
Jan.	133	2.16	539
Feb.	73	2.20	534
Mar.	101	2.18	464
Apr.	185	2.01	446

* From 24-year record.

weight on the range; January is the most critical month of range feed.

Most of the calves reported were dropped in the eight-month period from October through May. Calves dropped

This early calf weighed above average at weaning.



from October through December were weaned and weighed the latter half of June; those dropped from January through March were weaned and weighed in early October; and the April and May calves were weaned and weighed in early December. Fifty calves born from June through September were not reported as they represented only small numbers for each of the four months.

Calves received only their mothers' milk and the forage they grazed. Cows were not supplemented with either hay or concentrates except in a few short periods of extreme feed shortage.

There were no great differences in average daily gain and 205-day adjusted weight for calves born from October through March. Calves dropped in April and May had substantially lower daily gains and adjusted 205-day weights (table 1).

The 205-day adjusted weight and pre-weaning ADG are important for evaluating performance in beef cattle, but actual weaning weights are more important to the commercial cattleman. The cowman is selling actual pounds of calf and not adjusted weights. As a result the last 10 years of records (1956 through '65) were analyzed to check the effect of month of birth on actual weaning weight. The last 10 years of records were used because weaning times were relatively constant during this period. This period covered records of 1,373 calves dropped from October through May.

The study of actual weaning weights shows that the older calves in any weaning group are the heaviest, even though the ADG for some of the earlier calves was slightly less than for the later calves. Of the calves weaned in June, those dropped in October were 23 lbs heavier than November calves and 54 lbs heavier

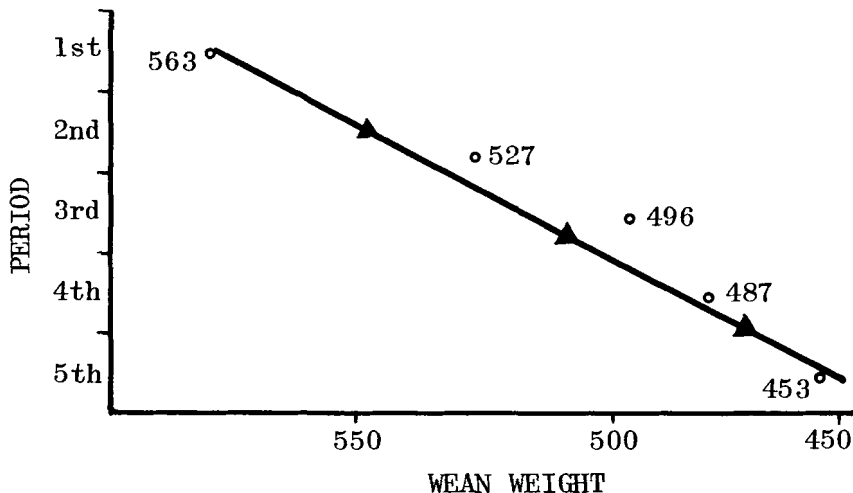
than December calves (table 2). Most October calves were dropped toward the end of the month, so they were not a full month older than the November calves. Most first calf heifers calved in October and November, and since they produce lighter calves, the increased average weaning weights for these months are even more significant.

Of the calves weaned in October, calves dropped in January and February had only 5 lbs difference in weaning weight. However, the January calves were 75 lbs heavier than March calves and 93 lbs heavier than early April calves (table 3). These differences are especially important because under this ranch operation it costs no more to produce an early calf than a late one. This may be equally true on most foothill and valley cow-calf ranches.

Analyzing records for the most recently completed weaning year (1968) on the same ranch again points out the value of calving as early in the season as possible. Records of 162 bull and heifer calves weaned in June showed that for each delay of 21 days in the calving period (average estrus cycle) weaning weight was reduced an average of 28 lbs (see graph).

There was a difference of 110 pounds in weaning weight between the first and fifth 21-day calving periods. For maximum weaning weights cattlemen should do everything possible to have all calves dropped early in the calving season. Greater returns from heavier calves could pay for extra feed and management expense that may be required on some ranches to insure earlier calving.

Walter H. Johnson is Farm Advisor, Shasta County; and J. T. Elings is Extension Animal Scientist, University of California.



Longidorus c

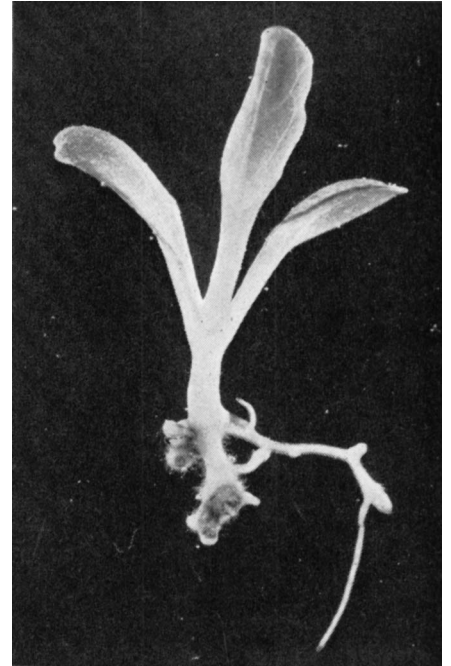


Photo 1. A typical diseased lettuce seedling from the field. Note swollen taproot tip.

Photo 1a. Close-up of diseased lettuce seedling illustrating lateral root damage.

