

This is supported by results reported by Arnold *et al.* (2) showing that dairy cows freshening during the winter months gave slightly more milk and were more persistent producers than cows freshening at other times. Those calving in October and November followed the winter group closely. Cows freshening in the summer (June to September) ranked below those in milk yield, while the spring calving group (March to May) produced the least milk.

#### SIRE DIFFERENCES

Results of this study show no significant influence of sires on 180-day weight of calves. This is not surprising in view of the limited number of bulls and the finding of previous investigators that sire differences tend to be small at weaning and increase with age of offspring. Inherent growth potential of various sire groups may have been partially masked because the dam's milk supply was a limiting factor. Furthermore, the breeding structure of the herd was such that sire differences probably were minimized. There was a tendency for dams heavy in Brahman breeding to be mated to British bulls and vice versa, resulting in high grade cows of both Brahman and British breeding raising a preponderance of crossbred calves.

Fig. 3.—Calves sired by Smoky, purebred Brahman bull, and out of grade cows.

