GAINS

28 or 56 days

total feeding period of 112 days. The weights were taken after about 16 to 18 hours without feed or water. All animals had received an implant of diethylstilbestrol and remained on the same ration throughout the feeding period.

Standard methods were utilized for computer calculation of simple and multiple regressions and correlation coefficients. The data were handled either in three separate weight classifications or as one large sample. In all cases simple regressions of 28- or 56-day gains against overall daily gains and multiple regressions of 28- or 56-day gains plus initial weight with overall daily gain were determined.

The graph illustrates the percentage of variation in overall daily gain that can be accounted for by either 28- or 56-day gains with, and without, adjustments for initial weight. It is apparent that the precision with which one can predict overall weight gain of individual feedlot steers from either 28- or 56-day gains is not good enough to be a very effective management tool.

The illustration also shows that the ability to predict overall gain of light steers is less than for heavy steers. The reason is not that gains made by heavy steers are less variable, but that heavy cattle are fed for shorter periods. Therefore, 28 or 56 days is a larger portion of the total feeding period. In other words, days on feed, not initial weight, is responsible for the apparent increase in precision of predicting gains of heavy cattle as compared with light cattle. This is also shown in the illustration by comparing the initial, weight-adjusted figures with those which have not been adjusted. It is evident that adjustment for initial weight does not significantly improve the accuracy of predicting overall gain either within a weight classification or over the entire range of weights.

Table 2 gives the correlation coefficients, predicting equations, and an approximation of the accuracy of the predicted gain using either the 28- or 56- day average daily gain. These correlation coefficients are highly significant and indicate that a relationship does exist between early weight gain and overall weight gain of feedlot steers. However, the precision with which overall gain can be predicted is probably not high enough for use in practical management situations, since a considerable investment in man hours and equipment is necessary to determine the short-term gain of individual animals.

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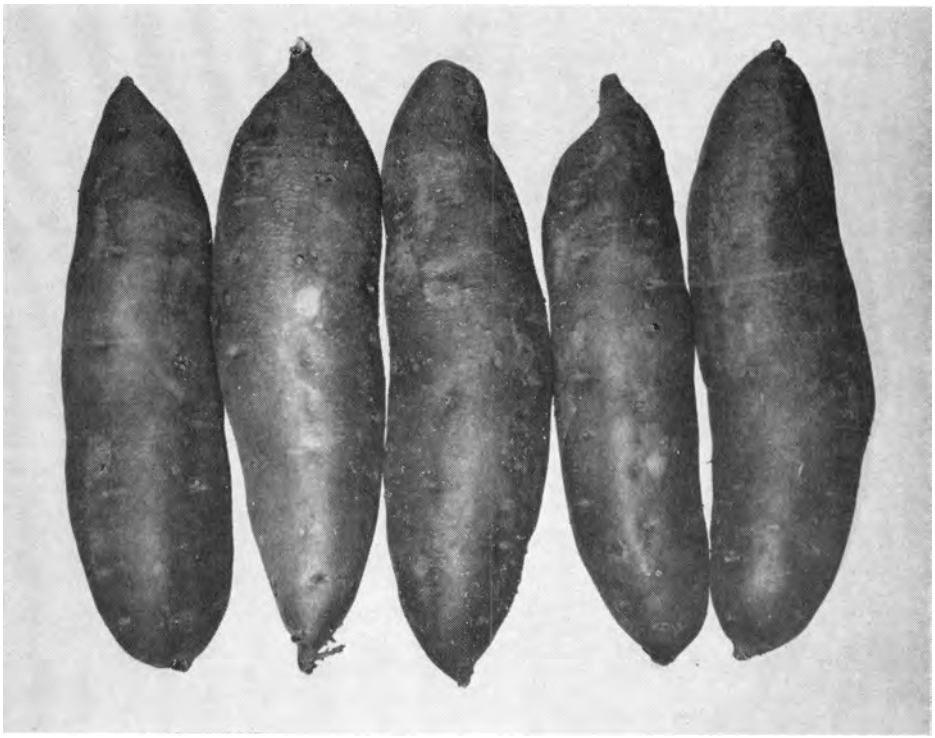
RUBY

. . . a newly-released, nematode-resistant sweet potato variety



The Ruby sweet potato has been grown for several years under the U. C. number, 2095. As the name suggests, it has a bright ruby skin that makes it attractive in the market. The flesh is deep orange and is a moist or melting type when baked. The eating quality compares favorably with that of the Puerto Rico strains. Typical roots are 5 to 8 inches long and 2 to 2½ inches in diameter. Ruby is highly resistant, but not immune, to Meloidogyne incognita nematodes. In soils highly infested by nematodes, occasional small galls have been found on the feeder roots. In trials it has consistently outyielded Velvet. The acreage has increased each year and now represents about 10% of the industry in the San Joaquin Valley.—*G. C. (Jack) Hanna, Olericulturist, University of California, Davis; Robert W. Scheuerman, Farm Advisor, Merced County; and George A. Marlowe, Jr., Agricultural Extension Vegetable Crops Specialist, Davis.*