

tively, were fed 140 days in drylot a ration in which citrus pulp furnished 44% of the TDN (19). Daily feedlot gains of 1.87, 1.92, 1.62, and 1.55 pounds and feed conversion rates of 0.094, 0.091, 0.085, and 0.078, respectively, were inversely related to winter gains, demonstrating once again the well known phenomenon of compensatory gain in the feedlot.

METHODS

Average proximate analysis of feeds on an air-dry basis are given in Appendix Table 1. Analysis of citrus feeds were given by Kirk and Davis (8) and data for other ration ingredients were from feed samples collected during the different feeding trials. Silage and fresh sugarcane were calculated on the dry matter content of hay (89.7%) and fresh grapefruit and oranges as dried citrus pulp (88.3%).

All rations contained adequate levels of crude protein from cottonseed meal or mixtures of cottonseed meal and urea or ammoniated feed products. Vitamin A was supplied by either hay, silage, cod liver oil, or alfalfa products. The Ona mineral mixture (3) fed free-choice furnished supplementary Ca, P, Na, Cl, Fe, Cu, and Co, minerals which may be deficient in Florida-grown feeds. The level of roughage in the rations varied from 15.4% to 58.9%, with more than 50% in nine rations. At least one citrus product was fed to all but Lot 1 of the 73 groups used in the study.

Stilbestrol was supplied to two groups of cattle. In one group (Lot 48) stilbestrol was mixed with cottonseed meal and fed at a rate of 10 mg daily per animal. In the second group (Lot 118) 24 mg of stilbestrol was implanted into the ear of each steer when placed on test (20).

There were 614 animals, including 75 steer calves, 428 steers one year or more in age, and 111 yearling heifers, all fed in drylot. Ninety steers were fed individually, and 524 steers and heifers were fed in groups. Brahman and Shorthorn blood predominated in the experimental animals, but grade Hereford, Devon, and Angus were represented. The cattle were healthy. Data for only one animal were discarded because of abnormally low rate of gain. There were no death losses. Grade, weight, and breeding were the criteria used in assigning animals to treatment groups. Cattle fed individually were weighed each week, while group-fed cattle were weighed at 28-day intervals.