

ered simultaneously with other factors. The simple correlation coefficient, however, showed a negative relationship between citrus molasses and dressing per cent, due possibly to the general tendency to reduce citrus molasses in the ration as citrus pulp was increased.

### **Carcass Grade**

Daily gain was the only ration or performance item which showed a significant relationship with carcass grade in this study. This trait accounted for only 5% of the variance in carcass grade. The reason for lack of influence of ration characteristics on carcass grade is explained by the fact that the study covered a number of years which introduced environmental variations, and utilized cattle of variable feeder grade, breeding, age, and sex. These factors had more influence on grade than the rations fed. Also there was a tendency to feed to the Good grade irrespective of the ration fed. Had the trials been on a time constant basis, ration ingredients undoubtedly would have influenced carcass grade.

It should be pointed out, however, that per cent of citrus pulp in the ration had a slight negative influence on carcass grade, as shown by the simple correlation coefficient in Table 1. While the negative relationship was not statistically significant, the results suggest that the higher amounts of citrus pulp used in these studies were approaching the level that can be used without adversely influencing carcass grade. The highest quantity of citrus pulp fed in a ration was 71.5% of the TDN (Lot 100). The highest level of citrus molasses was 32.4% of the TDN (Lot 25) and the highest level of total citrus products was 76.1% of the TDN in the ration (Lot 190).

### **DISCUSSION**

The object of the drylot feeding trials was to determine the value of citrus pulp and citrus molasses in cattle finishing rations as indicated by rate of gain, feed conversion for gain, carcass yield, and carcass quality. [Citrus pulp is the most versatile of the citrus feeds; it is palatable, rich in energy nutrients, easily mixed with other feed ingredients, and readily stored. Citrus molasses is of secondary importance as a source of nutrients because only a limited volume is produced.]

The control ration in each of the 23 series of feeding trials was considered adequate to promote good rate and economy of