

### **Citrus Molasses and Cane Molasses**

Steers hand-fed equal amounts of pulp and either citrus molasses or cane molasses (11) made similar responses in rate and economy of gain. The cattle ate an average of 5.3 pounds of either citrus or cane molasses daily with no digestive disturbance. Self-feeding these two molasses with the same level of citrus pulp in the ration resulted in daily consumption of 7.9 pounds citrus molasses and 7.2 pounds cane molasses with less efficient gains.

### **Cottonseed Meal Versus Urea-Protein Supplement**

Calves and yearling steers (15) fed cottonseed meal had a 6.7% higher rate of gain and 6% higher feed and TDN conversion rates than animals fed a mixture of 60% cottonseed meal, 5.5% urea, and 34.5% citrus meal. Yearling cattle fed either cottonseed meal or protein feed containing urea gained faster and required less feed for gain than did the calves. In another trial steers fed urea-treated citrus pulp and 65.7% as much cottonseed meal had 11% less gain than those fed plain pulp and cottonseed meal.

### **Fresh Citrus Fruit**

Fresh grapefruit, fresh oranges, and grated oranges contained 13.6%, 16%, and 14.8% dry matter, respectively. Rate of gain with grapefruit as a source of energy was positively correlated with the level of TDN consumed, and was limited by the water content of the fresh fruit (10). Grating improved the palatability of oranges by allowing essential oils in the skin to be washed away. Grating raised average daily orange consumption from 29.3 to 56.5 pounds with daily gains being increased from 1.58 pounds to 2.62 pounds. Gains improved 66% when more oranges were eaten, whereas daily TDN intake increased 36%. It appeared that nutritional factors other than TDN consumed affected gains.

### **Citrus Pulp, Ground Snapped Corn, and Corn Meal**

These three feeds had similar value when fed at the same level in balanced growing and finishing steer rations (17). Yearling steers fed corn meal had a slightly higher carcass grade and dressing per cent than animals fed the other two energy feeds.