

## PACKINGHOUSE COSTS

Costs are synthesized for two types of model packinghouses (those using bulk handling techniques and improved in-plant handling equipment) and for conventional field box, automatic dump type packinghouses (those in which citrus fruits are handled from the tree to the dump belt in field boxes, and the packed fruit hand-trucked from individual packing lines to loading station). The procedures for estimating costs for these three types of packinghouses are illustrated by examples. The long-run costs of these three types of packinghouses are compared to estimate the potential savings of one type over another.

### OPERATING COSTS FOR SINGLE-UNIT MODEL PACKINGHOUSES

The method of estimating packinghouse costs for a single-unit packinghouse is explained by using a packinghouse designed for an "efficient" capacity rate of 300 boxes per hour as an example. Costs associated with the packinghouse operation and with the pick and haul operation are estimated separately, and then combined into total season costs.

**Packinghouse Costs.**—The first step in the process of calculating packinghouse costs was to estimate the hours of operation necessary to pack selected season volumes. This task involved (1) selecting specific season volumes, (2) calculating weekly volumes to be packed and (3) estimating the hours of operation by weeks. The season volumes chosen for the 300-box-capacity packinghouse ranged from 180,000 to 330,000 boxes. The weekly volumes shown in Table 1 were derived from the season volumes by using the index of season variation shown on Page 13. The weekly hours of operation were calculated by dividing the capacity volume per hour into the weekly volume and adding break-for-lot time. The estimated weekly hours of operation for the single-unit 300-box-capacity packinghouse are shown in Table 2.

Total weekly hours of operation were used to calculate the total season labor costs shown in Table 3. As specified, it was assumed that hourly employees in the packinghouse received overtime wage rates for all employment over 40 hours per week. In addition, all male employees were assured a minimum of 40 hours of employment for weeks in which they were employed. Packing labor costs were calculated on a piece-rate with no overtime or minimum employment. Workers such as the manager and night watchman were paid by the week with no overtime