

New Machine to Speed Maturity Tests

In making oil determinations to advise growers whether or not their fruit is ready for market, and to check up on unripe fruit in the market, it has been necessary to grind up the pulp with a mortar and pestle. This takes a lot of time and definitely limits the amount of work which can be done in a day. It once took 20 minutes to get a sample ready for the test. Now with a machine developed by George Smith, of Agricultural Commissioner McLean's staff, running four samples at once, the time figures out about two minutes per sample.

The sample is placed in a heavy metal tube with a small steel ball, and the cover screwed on tightly. The tubes are clamped on to a frame which is caused to reciprocate rapidly by a small electric motor through appropriate belts, pulleys and linkage. Under this cocktail-shaking motion the steel balls fly back and forth, quickly macerating the sample of avocado. When the sample is prepared a refractometer reading is taken to determine the percentage of oil. Several of the Smith machines are already in use.