

## BLEMISH FACTOR ANALYSIS

The analysis of fruit blemish factors on the tree just prior to harvest or once fruit have been harvested, provides the grower with an evaluation in commercial terms, of all control programmes implemented during the season. It reflects the pest and natural enemy trends observed during preceding orchard inspections and also assists with pest management decisions for the season to follow.

### 1 ON-TREE ANALYSIS

With the trend towards selective picking and a variable degree of culling occurring in the orchard, it is more accurate to conduct the final analysis of fruit blemish factors before picking starts. The process can be conducted in a similar manner to the scouting procedure with fruit being sampled from all parts of the orchard. Care must be taken to include fruit from inside the tree. All blemish factors or pest infestations should be recorded, whether they are sufficient to cull the fruit from export quality or not.

### 2 POST-HARVEST ANALYSIS

If fruit blemish is analysed at the packhouse, samples can be taken at a convenient point before the fruit are graded. Samples should be randomly selected. The number of samples should ensure that a true picture is obtained of the situation in a particular orchard. Packhouse members who wish to do their own analysis can arrange for a sample to be taken at random from each trailer or consignment sent to the packhouse. Growers who cull fruit in the orchard before it is sent to the packhouse should bear this in mind when determining their blemish factors.

### 3 DETERMINING CULL FACTORS

Having taken the sample it is important to record separately **each** pest or other blemish factor that is severe enough to downgrade a fruit in its own right. With this procedure **a particular fruit in the sample may be shown to have more than one factor that can cause it to be culled.** These comments refer primarily to factors that cause fruit to be rejected for export.

The so-called **dominant factor** approach is

frequently used when assessing cull factors in packhouses. With this approach a sampled fruit is recorded as being culled for the most severe pest blemish present. Other blemishes are ignored even if they are capable of causing a fruit to be culled, e.g., a fruit with 600 scale and a large thrips blemish might be culled for scale only, because the scale made a bigger impression on the inspector. It is clear that this approach can give a misleading indication of the losses caused by different pests.

### 4 FALSE CODLING MOTH MANAGEMENT SYSTEM (FMS)

The FMS requires specific sampling sizes at different parts of the harvesting, packing and shipping process. These instructions are updated periodically and are circulated to all role players as required.