



[Rendell's Photo Service photo.]
Jumble-packed feijoas (left) lack the attractive appearance of a well-packed case (right).

should be sown with superphosphate at the rate of 2 to 3cwt. per acre. The crop should be turned in during winter, preferably with a rotary cultivator.

On light soils in some of the subtropical fruit-growing districts where some orchards are maintained in permanent pasture or green crop, the sward should be mown regularly in spring and summer to reduce moisture transpiration. The mowings, which form a valuable mulch, should be collected and placed on the cultivated squares beneath the trees.

Pests and Diseases

At present in New Zealand the feijoa is attacked by few insect pests and diseases and control measures are a minor item in the production of the crop.

Leaf-roller Caterpillar

The grub of the leaf-roller caterpillar (*Tortrix* spp.) is active during late December and early in the new year, when it may be found attacking the foliage and young shoots of the trees. It eats holes in leaves and frequently chews out the tender growing tips of laterals, but it seldom damages the fruit.

The caterpillars of a bag worm moth may also cause leaf injury by eating small irregular-shaped holes in the leaves. These caterpillars carry a conical "house" around with them and are conspicuous on the foliage during late spring.

Control of the caterpillars may be obtained by spraying the trees with arsenate of lead at 1½ lb. to 100 gallons of water. Applications should begin about mid-December and be continued at 3-weekly intervals until February.

Hard Wax Scale

Hard wax scale (*Ceroplastes sinensis*) is common on feijoa foliage and attacks a wide range of plants. The adult scales are cone shaped and greyish white and are capable of producing large numbers of eggs.

The small, star-shaped young scales are usually found on the upper surface of the leaves and are most noticeable during April and May. Sooty mould is associated with this scale and infection of both sooty mould and scales may become severe if control measures are neglected.

Control should be directed against the young star-like stages by applying a 1½ per cent. summer oil spray to the trees during May.

Leaf-spotting Fungus

A leaf-spotting fungus, *Sphaceloma* sp., is occasionally found attacking the foliage of feijoas. This fungus belongs to the same group as that causing verrucosis on lemons. Should the disease appear to an extent requiring control measures, Bordeaux mixture 3:4:50 should be applied at first signs of spotting. Several sprays at 2- to 3-weekly intervals may be necessary to secure full control.

Harvesting

The first fruits usually mature toward the end of April and harvesting continues during May; in some seasons, usually after a long dry spell, fruit ripens earlier, about the second week in April. The fruits fall to the ground when mature and are not picked from the trees as most other fruits are harvested. They should be collected daily and not left exposed to the sun any longer than necessary, as scalding of the fruit may occur.

Little if any bruising occurs to the fruit when it falls, but to minimise any risk of damage it is advisable to maintain either a loose surface soil mulch or straw mulch under the trees.

When the fruit falls it is very firm and the flesh lacks flavour. It is unsuitable for use until the colour changes to a yellowish-green, when it produces a pleasant aroma and becomes slightly soft. Until feijoas reach that stage of maturity they are

unfit to use either for culinary or dessert purposes.

Fruit not required for immediate use should be stored in a cool, draught-proof shed to prevent withering and be marketed before it becomes soft. Under suitable storage conditions fruit may be held for about a month. Commercial growers should guard against holding feijoas too long; when packed for market sufficient life should be in the fruit to allow it to reach the consumer before there is any chance of its deteriorating.

Packing

No standard package for feijoas has been adopted, but the No. 8 flat tomato case in the schedule of standard packages in the New Zealand Grown Fruit Regulations, 1940, has proved a satisfactory container. This case, which has inside measurements of 4½ in. x 12 in. x 16 in. and holds about 20 lb. of fruit, is recommended. If necessary this case may be cut in halves, giving an inside measurement of 4½ in. x 6 in. x 16 in.; approximately 10 lb. of fruit may be packed in half cases.

The fruit should be of the same maturity when graded to size and should be packed on the diagonal-pocket system, which places the fruits in any layer in the spaces between the fruit in the layer beneath. Packed on this system the fruit presents an attractive appearance when the case is opened and bruising or damage to the contents during transit is reduced.

The use of mauve lining paper contrasts with the greenish colour of the feijoas, enhances the appearance of the package, and frequently adds to the market value. For sending feijoas to distant markets the use of corrugated top and bottom pads will give the fruit added protection against damage.

Neat branding of the railing or shipping mark on both ends of the case simplifies any sorting necessary during transit and frequently avoids unnecessary handling of the fruit. To prevent possible misdirection, care should be taken to use correct abbreviations for railway stations to which consignments are dispatched; the Railways Department will provide information about recognised abbreviations.

The name of the fruit and some indication of the size, such as "large", "medium", or "small", should be stamped or stencilled on one end of the package.

Provided soil and climate are suitable, feijoas grow without special attention and production costs are the lowest of any subtropical fruits produced in New Zealand. If care is taken in the selection of trees for planting, there appears to be no reason why they should not yield a payable return to the grower.

References

- "The New Zealand Journal of Agriculture", volume 73, page 465, F. Sydenham (1946).
- "Manual of Tropical and Subtropical Fruits", pp. 292-299, W. Popenoe (1924).
- "New Zealand Journal of Science and Technology", "Observations on Seedling Feijoas (*Feijoa sellowiana* Berg.) at Mount Albert Auckland", agricultural section, volume 28, number 5, H. M. Mouat (1947).