

Bunch covers for bananas

Agfact H6.3.4, first edition 1984

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(Revised by N Treverrow March 2003)

Bunch covering is an ancient practice. For centuries, old banana leaves have been wrapped around maturing bunches in New Guinea. In New South Wales some form of bunch covering has been practiced for almost 50 years.

In 1936 it was demonstrated that covering bunches with hessian protected them against winter chilling and improved fruit quality. Later, paper bags were used to a limited extent.

In 1949 and the early 1950s, plastic covers were tried at Duranbah, NSW. Various materials, but mainly PVC, and a large range of colours, were used. They were immediately successful and now covers are extensively used in banana culture in New South Wales.

Although several colours gave excellent results, the banana industry standardised on blue for many years. In more recent years, blue, green, yellow and clear, with and without silver sides, have been used. The different colours are used as an aid in estimating bunch maturity and the silver sides reduce sunburn.

When to use covers

Where flying foxes and birds are not a problem, the covers can be put on after the bracts that cover the hands have fallen and the flower ends have hardened. For Ladyfinger in particular, where flying foxes and bird attack are prevalent, bunch covers are put on as soon after the bell emerges as possible.



Yield increases

Experiments at Durambah showed that covers consistently increased bunch weight by about 25 per cent. At the Centre for Tropical Horticulture, Alstonville, NSW, experiments showed that while yield increases of 25 to 30 per cent could be expected in some seasons, no significant yield increase occurred in other seasons. However, the covered bunches always produced fruit which was much better in appearance than the uncovered bunches. The fruit from covered bunches was more uniform in size and fullness from the front to the back and from the top to the bottom of the bunch, than that on uncovered bunches.

Mixed ripening

“Mixed ripe” is the term given to fruit forwarded to markets in a green condition but some of which has begun to ripen by the time it gets there. The condition causes difficulties in ripening and marketing and reduces returns to growers.

As a banana grows it becomes more mature. This maturity is related both to the size and age of the fruit.

Bunch covers would influence mixed ripe if they changed the relationship between growth and maturity. For example, fruit of similar size may be more mature in a covered bunch. In experiments at Alstonville, bunch covers did not influence maturity more than growth and so did not contribute to mixed ripe.

On the other hand many growers avoid mixed ripe, and stale fruit by using different coloured bunch covers for different months of bunch emergence. This allows different aged bunches to be readily identified. As a rule of thumb, once 75% of bunches of a particular colour are harvested, the rest of the bunches in that colour group are also harvested.

Lost leaves

Covers are effective in increasing the yields of bunches maturing during the winter months. At this time the leaves on the plant are affected by the adverse weather and by Sigatoka leaf spot. Does the presence of a bunch cover make up for the loss of leaves? Indeed, can some leaf control measures be reduced if covers are used?

As an experiment, bunch covers were placed on plants which had from 0 to 12 leaves present at bunch emergence (leaves being removed with a knife). These were compared with a similar series without covers. Covers did not significantly compensate for lost leaves. As well as good leaf disease control to maintain productivity growers also prune a number of hands of

young bunches especially in winter hanging bunches, to ensure good filling and length of fruit. A general rule is one good leaf per hand, at harvest.

Some growers have also experimented with double bunch covers (often a clear cover inside a coloured cover) to provide more warmth for winter hanging bunches. Although there is no convincing data available many growers feel this is a valuable exercise for this winter bunches.

Problems

Covers can cause some problems, but these are easily overcome.

You can reduce **sunburn** by:

- using reflective covers
- maintaining enough leaves on the plant to shade the bunch.

Longevity. Polythene covers last about a year. They can be used on 2 to 3 bunches in this time.

Advantages

- increased yield, especially more large-grade fruit
- more uniform fullness of fruit within the bunch
- protection from mechanical damage while the fruit is hanging in the plantation and in transport to the shed
- Some growers have found extra long bunch covers assist in preventing flying foxes and birds from climbing into bunches
- fruit with better appearance
- more profit.

FURTHER INFORMATION

For further information contact your nearest NSW Agriculture District Horticulturist.

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ISSN 0725-7759

DISCLAIMER

The information contained in this publication is based on knowledge and understanding at the time of review March 2003. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Agriculture or the user's independent adviser.