

# COCOA MARKETING, QUALITY CONTROL AND THE COCOA BOARD IN PAPUA NEW GUINEA

By D.W. Kidd, formerly, National Crop Adviser (Cocoa),  
Lowlands Agricultural Experiment Station, E.N.B.P.  
and Richard Johnson, Marketing Section, D.P.I., Konedobu

## INTRODUCTION

At present Papua New Guinea has an efficient marketing system for cocoa. This has been developed over the last 30 years. It aims to give all growers the best possible price at all times. The Cocoa Board regulates the industry. D.P.I. Cocoa inspectors act as independent quality controllers. In this article we will look at cocoa as it moves from the growers until it is finally exported.

## FERMENTARIES

### Growers

Growers harvest and split their cocoa pods. If a grower has a lot of beans he will process his cocoa in his own fermentary. This fermentary must be



*Splitting cocoa pods*

registered by the Cocoa Board for a K30 fee. If the grower has only a few trees, or he is harvesting out of the main producing season, he will sell his wet bean to a 'Wet bean dealer'.

### Wet bean dealers

A wet bean dealer is licenced by the Cocoa Board to conduct business as a dealer. The registration fee for a licence is K50. The dealer buys wet bean, fills up his fermentary boxes, and dries the cocoa. The dry bean produced will be inspected and sold to an exporter. Dealing in dry bean is not allowed - that is, the dealer cannot sell dry beans to another dealer.

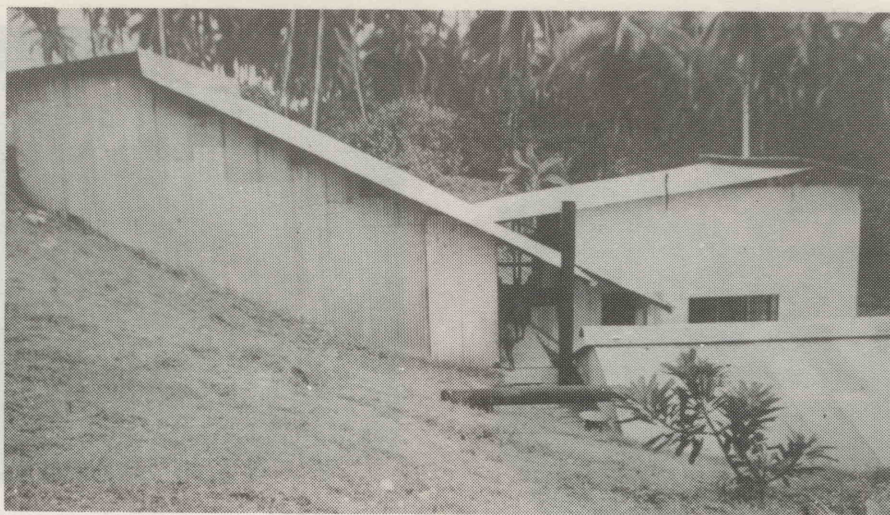
### Registration of fermentaries

All fermentaries must be registered with the Cocoa Board. The Cocoa Board inspects each fermentary. If it is properly built and meets certain standards, the fermentary will be registered.

The Inspectors look for fermentary boxes of good size, solid materials, with air holes in the base. Drying trays should be sound and well fixed. The boxes and drying trays should be protected from the weather.

The fermentary will be registered if:





*A village-owned fermentary in the North Solomons Province*

- (1) enough wet bean is available for a full ferment,
- (2) the fermentary and dryer are sound for good ferment and drying,
- (3) the owner knows how to ferment and dry properly.

These points are all important to produce good quality dry bean.

Registering fermentaries means that they all are known so the didiman can reach each owner with advice on the methods needed to produce good quality cocoa. All registered fermentaries have a number. All bags of dried cocoa must have the fermentary number stamped on them. Produce inspectors can easily find out the fermentary of a particular bag of cocoa.

If a fermentary owner is found to be breaking regulations under the Cocoa Act of 1982, he will be warned or prosecuted. Examples of offences are: failure to pay for re-registration; fermenting in an unregistered fermentary but selling under another grower's mark; tampering with inspected and marked bags.

## INSPECTION OF COCOA

All cocoa must be inspected before being sold to an exporter. Cocoa produce inspectors are part of the Crop Development and Marketing Branch of the National D.P.I. These inspectors make sure that the quality standards for exported cocoa are maintained.

### How cocoa is inspected

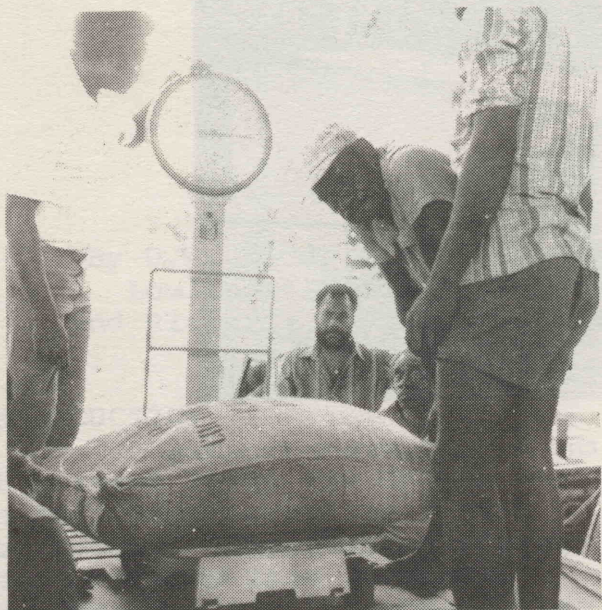
When cocoa is brought in for inspection, the cocoa inspector first checks that:

1. The bags containing the cocoa are new, clean, insect free and undamaged.
2. Each bag, plus its contents, weighs at least 63.5 kg.
3. Each bag has 'PNG COCOA BEANS' and the fermentary number stamped on them.

He then takes a sample of beans. The size of the sample depends on the number of bags in the consignment. The inspector then carries out the following tests:

1. Part of the sample is ground





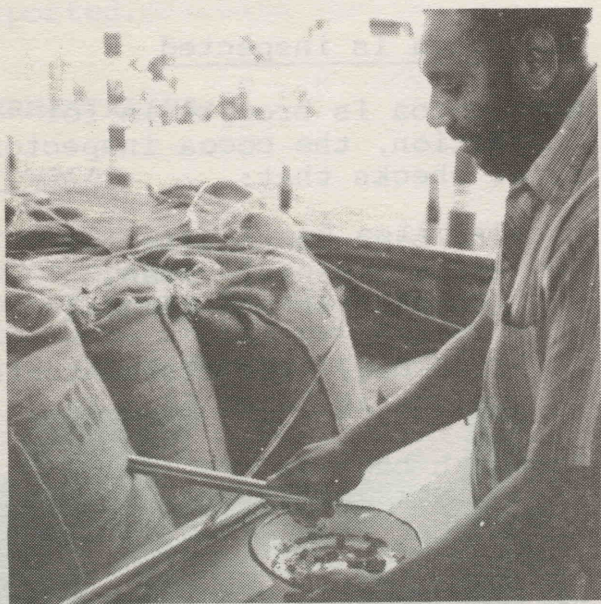
Each bag of cocoa should weigh 63.5 kg



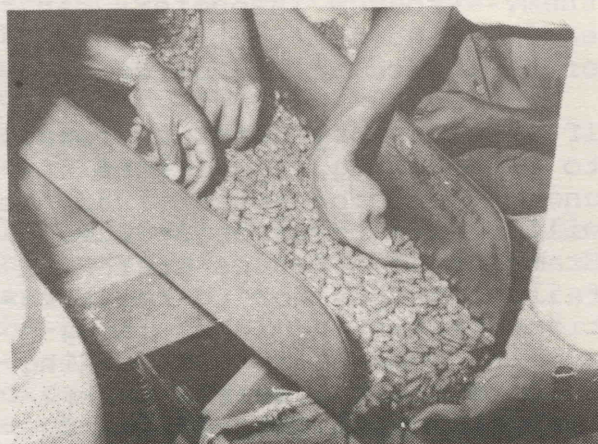
Sniffing a ground-up sample of beans to detect unwanted smells



Carrying out the 'cut' test



Taking a sample of cocoa beans using a stabber



Checking the contents of a bag for foreign matter (e.g. stones)

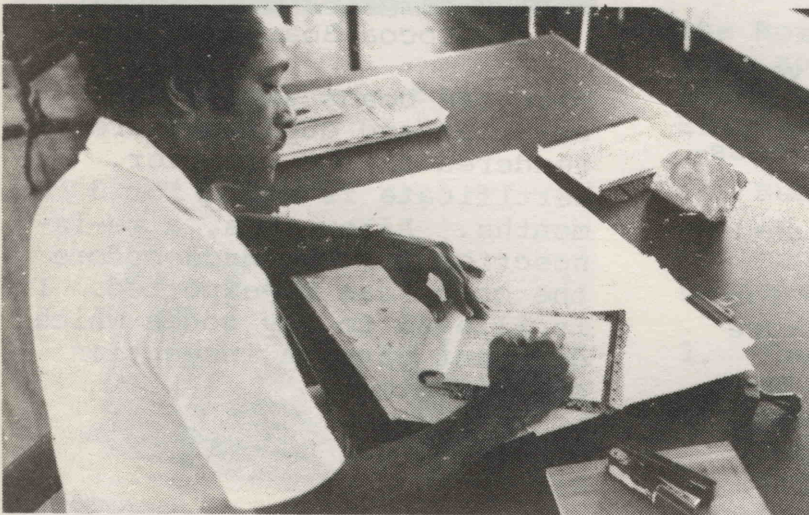




If the cocoa meets the Papua New Guinea export standards, the bags are sealed with a metal tag .....



..... and marked with a red triangular stamp



The cocoa inspector then makes out an inspection certificate

Form 1

PAPUA NEW GUINEA

Cocoa Industry Act 1974

Reg. 6 (1)

**Certificate of Inspection of Cocoa Beans**

No 76600

The Collector of Customs,  
Port of RABAU

It is hereby certified that the consignment of cocoa beans details of which appear hereunder has been examined by me under the *Cocoa Industry Ordinance 1958*.

Dated this 18th day of October, 1983.

[Signature]  
Inspector

Port and date of examination RABAU 18th October, 1983.

Name of exporter or grower TAVILO PLANTATION

Marks (shipping or registered distinguishing marks) TAVILO P.1

Total number of bags in consignment 50 Bags

No. of bags containing PNG Export Cocoa 50 Bags

Consignee ANGCO

Intended date and vessel of shipment

Present location in store of ANGCO

Govt. Print - 136/300 Books - 1.82

An inspection certificate. It is illegal to buy cocoa which does not have a certificate like this.



to a powder. The inspector smells the powder to detect any unwanted odours such as smoke, or the rotten smell of over-fermentation.

2. 100 beans are selected at random and the 'cut-test' done on them. The cut test consists of splitting the beans in half lengthways. The cut surfaces are examined and a count is made of any beans which are:
  - . slaty (a slate grey colour on the cut surface)
  - . mouldy
  - . insect-damaged
  - . germinated
  - . double (two beans very close together)
  - . broken (a fragment missing)
  - . flat (too thin to cut)
3. The beans are checked for even drying, and moisture content is tested.
4. The average weight of the beans is checked.
5. The amount of foreign matter such as stones and fragments of beans, is checked.

If the beans meet the Papua New Guinea export standard then each bag is marked with a red triangular stamp, and sealed with a metal tag.

If the cocoa does not meet the standards, and the beans are unsound, the bags will be marked with a green stripe along the top of the bag. The grower or fermentary owner cannot take the bag back and bring the beans up to standard. He must sell the cocoa to the exporters as 'Non-Export' standard.

If the cocoa does not meet the standards, but the beans are

sound, the bags will not be marked. The grower will be advised what is wrong with his cocoa by the inspector and given an advice note. The grower or fermentary owner can take the bag back and bring the beans up to standard.

After examining the cocoa, the produce inspector makes out an inspection certificate, with two copies:

- . The original is given to the seller.
- . The duplicate is given to the seller.
- . The triplicate is sent to the Cocoa Board.

When the beans are sold the original and duplicate are surrendered to the exporter. The certificate is valid for 3 months. After this, a re-inspection must be made before the cocoa can be exported. It is illegal to buy cocoa which does not have an inspection certificate.

#### EXPORTERS

An exporter's job is to make contact with people in other countries who buy cocoa beans. He finds out how much they need, and what they are prepared to pay. The exporter uses this to set the D.I.S. (delivered-in-store) price he can offer. The exporter then buys cocoa to satisfy the needs of his buyers. Marketing cocoa is very complicated. Most cocoa growers, except perhaps large plantations, could not do it themselves. It is illegal to sell dry cocoa beans to anyone but a licenced exporter. The licence to export is issued by the Cocoa Board for each exporter in each port in which they operate.





*A cocoa exporter's store*



*Cocoa being loaded onto a ship in Rabaul, for export*

## THE COCOA BOARD

The Cocoa Board plays an important part in the cocoa industry of Papua New Guinea. It consists of the following people:

1. The Secretary of D.P.I., or someone named to represent him.
2. A chairman, and 7 members, who are or who represent cocoa growers. The minister for D.P.I. chooses these people from a list of names supplied to him by interested organisations such as Provincial Governments, Growers Unions/Cooperatives.

The Board meets several times a year to approve the policies which are implemented by the Executive Staff and Inspectors.

The Board has an overall aim to act in the best interests of the cocoa growers of Papua New Guinea. It does this by:

1. The control and regulation of growing, processing and marketing. The system of registration of fermentaries, dealers and exporters is set up with this aim. Licences for fermentaries control growers; licences for dealers protect growers; licences for exporters give competitive prices without excessive overhead costs.
2. Managing the Cocoa Stabilisation Fund which is a scheme to keep prices steady. This fund makes bounty payments to increase cocoa prices when these are very low due to the world market.
3. Promoting Papua New Guinea cocoa beans in the overseas countries which buy them to make into chocolate.



4. Setting up a Research and Development Programme to help the industry. The board is redeveloping Tavilo Plantation. There is a hybrid seed garden at Tavilo which produces seed of improved varieties of cocoa.

The Tavilo nursery is producing better seedlings for sale to farmers. The Cocoa Board station at Kurwina, North Solomons is used for the quarantine of hybrid material which can then be imported into the vascular streak dieback-free island areas.

The Cocoa Board has its headquarters in Rabaul. The administrative staff maintain the records of all registered fermentaries, dealers and exporters. Bounty paid out by exporters is funded by the board.

The inspectors work in all cocoa growing areas. Their job is to inspect fermentaries and make sure that dealers operate correctly in restricted areas. They inspect dealers and exporters' stores, which should be waterproof, with a sound floor, free of insect and rodents, clean and without tainting materials. Inspectors may check cocoa quality and the papers and books in dealers and exporters' offices.

Money to run the Cocoa Board comes from the 'Management Levy' of K30.00 per tonne of exported cocoa. The cocoa exporter deducts this money from the price paid and forwards it to the Board on the growers' behalf.

#### PAPUA NEW GUINEA EXPORT STANDARDS

To meet Papua New Guinea export standards, the cocoa should:

- (a) be properly fermented and dried
- (b) be free of foreign odours
- (c) contain less than 1% by count of slaty beans or less than 5% by count of flat, double, broken or germinated beans

and

- less than 5% by count of mouldy or insect-damaged beans or less than 1% by weight of foreign matter
- (d) be evenly dried
- (e) have a moisture content of 5.5% to 7.5% by weight
- (f) have not more than 1000 cocoa beans per kilogram.