

USING COCOA BEANS AT HOME

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INTRODUCTION

If you grow cocoa, you might have thought about making your own chocolate! This article describes how you can do this.

WHICH BEANS TO CHOOSE?

Choose fermented and dried cocoa beans which have a plump, rounded shape and a rich brown colour. The smell should be clean, sharp and pungent. When the beans are cut open lengthways they should show a pale brown to dark brown colour with an open appearance to the bean.

ROASTING

Place whole undamaged graded beans in a shallow dish and roast them in the oven at 140°C for 40 minutes. Let the beans cool, then crack the shells and rub them off. The shells should come off easily.

GRINDING

Now grind up the cocoa beans in a meat mincer. First use a normal steak mince screen, then pass through a sausage mince screen. The sausage mince screen should have very small holes, about 2 mm in diameter.

If a meat mincer is not available, a coffee grinder could be used instead, but you will not

be able to grind the cocoa so finely. It is very difficult to grind the cocoa finely enough using home equipment.

The beans need to be totally broken down to a stiff greasy paste. You can use this cocoa paste instead of cocoa powder in cakes, biscuits, icing sugar and ice cream. You must use about one and a half times as much cocoa paste instead of cocoa powder.

Keep the cocoa paste wrapped in plastic film and stored in a refrigerator if you don't use it all at once. The plastic film will prevent the cocoa paste from absorbing smells from other foods while it is stored.

MAKING CHOCOLATE

1. Warm the cocoa paste, made as described above, in a dish placed over a pan of hot water. The water should not be boiling.
2. For every 100 g of cocoa bean paste add 40 g 'Copa'. 'Copa' is a high quality white fat used in cooking. Commercial chocolate uses cocoa butter, not 'Copa', but we cannot buy cocoa butter in Papua New Guinea.
3. Mix the cocoa bean paste and Copa together over the simmering (almost boiling)

water. Stir now and again. If the water is allowed to boil, the oil and cocoa may not mix properly. If this happens, add two eggs yolks and keep mixing away from the heat. Eggs contain a substance called Lecithin. Lecithin helps the cocoa powder mix smoothly with the oil.

4. You can add sugar if you want. If you decide to do this use fine ground castor sugar or pure icing sugar. Mix the sugar into the chocolate thoroughly over the hot water bath.

You will need from 40 g to 100 g of sugar per 100 g of cocoa paste, according to taste.

WHY COMMERCIAL CHOCOLATE IS SMOOTHER THAN HOME-MADE CHOCOLATE

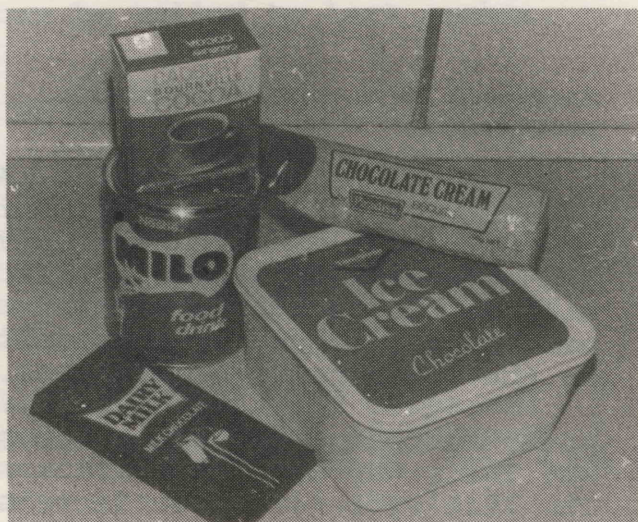
We have explained how to prepare eating chocolate, with normal kitchen equipment. While tasty, it will not be as smooth as commercial eating chocolate. Special grinding

and mixing equipment is needed to reduce the particle sizes down to the fineness that gives the very smooth sensation and flavour of high quality chocolate. In a chocolate factory, this process (called conching) takes many hours of rolling chocolate with a granite stone roller in a cast iron pan. The process grinds the sharp edges off the sugar crystals and reduces them along with the cocoa particles to about 15 microns in diameter (1 mm = 1000 microns).

Your home made chocolate is not likely to have quite the same flavour as bought chocolate, because commercial manufacturers blend (mix together) beans from different countries to get the flavour they want.

USING YOUR CHOCOLATE

You will find that the crude chocolate prepared by the method outlined above will give an intense chocolate flavour to cakes, icing, ice cream, mousse and souffles prepared by using it as a cooking chocolate replacement.



A few well-known products which are made using cocoa