

HOW TO RIPEN BANANAS QUICKLY

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ABSTRACT

Ripening of bananas is facilitated by a stimulant, Ethylene, produced by the fruit upon maturity. However natural ripening is not always uniform. Traditional methods such as ripening bananas in dug-out pits was developed to achieve uniform ripening. Commercial ripening hormones are available for use. This note discusses two methods of ripening bananas using ethrel.

INTRODUCTION

Natural ripening of bananas is not always uniform. Usually the upper hands ripen first and progress throughout the bunch. The ripening process is facilitated by a chemical called *Ethylene*, a natural ripening stimulant produced by the fruit upon maturity.

There are two common traditional methods of ripening bananas. The first method is to bury the bunch in the ground and the second method is by hanging the bunch in the house after splitting the bunch stalk and treating with a hot stone. The fruits take longer to fully ripen.

Nowadays bananas can be ripened quickly using a ripening hormone called *ethrel*. The chemical is available in liquid form and has a high concentration of ethylene. Ethrel can also be used to induce flowering in a wide range of fruits.

There are two methods to ripen bananas all at the same time, using ethrel; dipping banana hands in ethrel solution and by the painting method.

Dipping in Ethrel Solution

The recommended mixture is 2 millilitres ethrel to 1 litre of water.

To ripen a small quantity of bananas you would need an old bucket which can hold about 7 litres of water. Add 14 mls of ethrel and stir well to make a solution.

Wash off dirt from the banana hands before dipping into the solution. Submerge the bananas for five minutes, remove and pack in an empty carton or hang in a shed. In the lowlands the fruits should ripen fully in three days, and may take another two days in the highlands.

For large quantities of bananas a 200 litre (44 gallon) drum can be used to prepare the solution. Fill the drum with water till it is half way (100 litres), then add 200 mls of ethrel and stir well. The solution can be used many times to ripen bananas. A fresh solution should be prepared if dipped bananas do not ripen quickly.

Painting Method

The painting method is probably the quickest but may use up more chemical.

First remove the hands from the main bunch stalk. Clean the hands and dry the oozing sap using old newspaper or cloth. Pour some ethrel into any empty container. Dip a clean piece of cloth or coconut husk and paint the areas where the hands were removed from the main bunch stalk. Observations at Laloki have shown that 80 mls of ethrel (115 g vegemite bottle) can be used to treat 15 bunches of bananas.

Treated hands can be packed in an empty carton or hung in a shed. The fruit should ripen within the same time span given in the first method. It is important that banana bunches are harvested when the fruits are fully mature but still green.

Cost Analysis

Ethrel is available commercially in Papua New Guinea and can be purchased from Brian Bell Stores in Port Moresby and Lae. The chemical is available in 5 litre containers at a cost of 240 Kina each. A bucketful of ethrel solution described in the first method will cost K0.67, K9.60 for half 44 gallon drum solution and K3.84 for 80 mls using the painting method.

The average weight of a good banana bunch (dwarf or tall cavendish) is 10 kilograms. At a retail price of about K2.00 per kilogram, commercial growers can expect to make 20.00 Kina from a good bunch of banana and should recover the cost of chemical quickly. However, schools and institutions may find ethrel useful to have enough ripe bananas at the same time for the mess.

Other chemicals such as Calcium Carbide may also be used but this is less effective as bananas take longer to ripen.

More information about other aspects of ripening bananas may be obtained from Harvest Vol. 8 No. 4 and Vol. 5 No. 4 or by contacting The Team Leader, Laloki Agricultural Research Station, P O Box 417, Konedobu, NCD or on telephone 281068. □