

FLOWER INDUCTION STUDIES IN PINEAPPLE  
(*ANANAS COMOSUS*) CULTIVAR MAURITIUS

B. Jeyaratnam

*Agricultural Research Centre, Makandura*

M.E.R. Pinto

*Div. of Horticulture, Peradeniya*

Studies were conducted on a 10 month old pineapple plot in a coconut plantation to find the effect of two common hormones in relation to the time of application of fertilizers. The pineapple cultivar was Mauritius. Hormones used were alpha Naphthalene acetic acid as Shellestone 'p' at 10 ml./18 litres of water of the commercial compound and acetylene from calcium carbide at 500 g/18 litres of the commercial calcium carbide. Fertilizers were applied at 8,6,4,2 and 0 weeks before hormone application.

A second study was conducted to evaluate the effects of 250g., 500g. and 1000 g. calcium carbide in 18 litres water, 5 ml. and 10 ml. of Shellestone 'p' in 18 litres and two mixtures namely 250 g. calcium carbide plus 5 ml. Shellestone 'p' and 500 g. calcium carbide plus 5 ml. Shellestone 'p' both in 18 litres of water on early and higher percentage of flower induction.

In the first study it was found that calcium carbide induced earlier flowering than with Shellestone 'p' at all fertilizer application times. In calcium carbide treated plants, fertilizer application times did not significantly vary the time taken for first flower opening. However the appearance of "Red bud" and opening of the first flower took place in the shortest time when calcium carbide was applied two weeks after fertilizer application.

In the case of Shellestone 'p' the "Red bud" and first flower opening was significantly reduced when the hormone was applied at 2 weeks after fertilizer application. The effects of hormone application and time of fertilizer application interacted significantly. In this study it was shown that calcium carbide induced significantly more number of plants to flower than Shellestone 'p'. The time of application of fertilizer had no effect on percentage of flowering.

In the second study Shellestone 'p' at the recommended concentration of 10 ml. in 18 litres of water induced plants to flower significantly earlier than when half this concentration, that is 5 ml. in 18 litres water, was used. As in the first study it was shown that calcium carbide induced significantly earlier flowering than with Shellestone 'p'. With respect to quantities of calcium carbide it was found that 500 g. in 18 litres of water was required for earlier and higher percentage of flowering. Calcium carbide treatments on the whole induced flowering significantly earlier than the two mixtures tested. However, the mixtures were superior to Shellestone 'p' alone. It was also recorded that plants treated with Shellestone 'p' alone gave higher average fruit weight, but this difference was not significant. Fruits from plants treated with calcium carbide and its mixtures were harvested 10 days earlier than those from Shellestone 'p' treated plants. Slip and sucker production was not affected by hormone treatments.