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## A NOTE ON PRE-MATURE CONVERSION OF AXILLARY VEGETATIVE BUDS INTO INFLORESCENCES IN BANANA

Production of abnormal bunch (inflorescence) by banana has been reported by various workers. Jaccob (1928) observed a case of fasciated heart in banana, where from the sides of the inflorescence a dozen hearts arose with pistillate flowers which ultimately developed into diminutive fruits. Bettai *et al.* (1960) reported a case of branching in the male phase of inflorescence of banana. Branching of male inflorescence in 'Kali' variety reported by Karunakaran *et al.* (1960) was similar to the fasciated heart reported by Jaccob (1928) and the case of branching in the male phase observed by Bettai Gowder *et al.* (1960). In all these cases the inflorescence emerged only after the main shoot attained full growth. Presence of three inflorescences emerging from the base of the main shoot of "Njalipoovan" was reported by Nair and Karunakaran (1963).

A banana plant of 'Kunnan' variety showing premature emergence of inflorescence was located at 'Kandessankadavu' in Trichur in 1977. The plant was 3 months old, 45 cms high, and had three inflorescences emerging from the axis of three outer leaves. Each inflorescence axis was fasciated at the base and was 2 cms in length with two or four branches. All the branches terminated with a small heart with bracts enclosing male flowers, while one of the branches of two inflorescences was a leafy structure (Figs 1 and 2). The plant was transplanted and maintained in a pot. A week after planting the inflorescence withered away. The plant put forth a new leaf after one month and 3 months later it put forth inflorescence piercing the pseudostem, giving rise to a small bunch with four hands having small fingers, terminating in a small heart (Fig. 3). This is similar to the inflorescence in 'Njali poovan' (Nair and Karunakaran 1963). The production of three distinct inflorescences, from three different positions from the outer leaf axils are possibly from three vegetative buds which turned into floral buds prematurely. This inference gains weight from the fact that in two of the inflorescences, one branch is leafy in nature (Table I, Figs. 1 and 2). The plant put forth a new leaf 3 months after transplanation proving that central bud was still growing as also evidenced by the fact that the plant has put forth a bunch (Fig. 3). This abnormality may be due to some hormonal imbalances that might have occurred in the plant, or even at bud site, at that particular stage, which might have led to the conversion of the vegetative bud to floral bud and leading to the production of inflorescence in the miniature form. It is also possible that after the conversion of the vegetative bud into floral bud leading to the emergence of the inflorescence later, the hormonal imbalance might have been got corrected in the plant.

Table 1 The details of the three premature inflorescences

Particulars	Length of inflorescence in cms.	No. of branches	Length of each branch in cms.	Number of branches ending in a male bud	Number of branches ending in a leaf like structure.
Inflorescence No. I.	2.0	2	8.5	1	...
			5.5	...	1
Inflorescence No. II.	2.0	4	1.5	1	...
			9.0	1	...
			3.0	...	1
			4.0	1	...
Inflorescence No. III.	2.0	2	4.0	1	...
			1.0	1	...

## സംഗ്രഹം

കന്നൻ ഇനത്തിൽപ്പെട്ട ഒരു വാഴയിൽ, കായകമുകളുടെ രൂപാന്തരപ്പെട്ടതും വളർച്ച ഏതാത്തതുമായ പൂങ്കലകൾ പുറം ഇലകളുടെ കക്ഷങ്ങളിൽ നിന്നും പുറപ്പെടുന്നതായി കണ്ടു. ഈ വാഴ പിഴുതു വെച്ചു വളർത്തിയപ്പോൾ ആ പൂങ്കലകൾ വാടി പോവുകയും പുതിയ ഇലയുണ്ടാകുകയും മൂന്നു മാസത്തിനുശേഷം മറ്റൊരു പൂങ്കല വാഴത്തട പിളർന്നു പുറത്തുവരുകയും ചെയ്തു. ഇപ്രകാരമുള്ള പ്രത്യേകതകൾക്കു കാരണം ചെടിയിലെ ചില ഹോർമോണുകളുടെ അസന്തുലിതാവസ്ഥയായിരിക്കാമെന്നു അനുമാനിക്കുന്നു.

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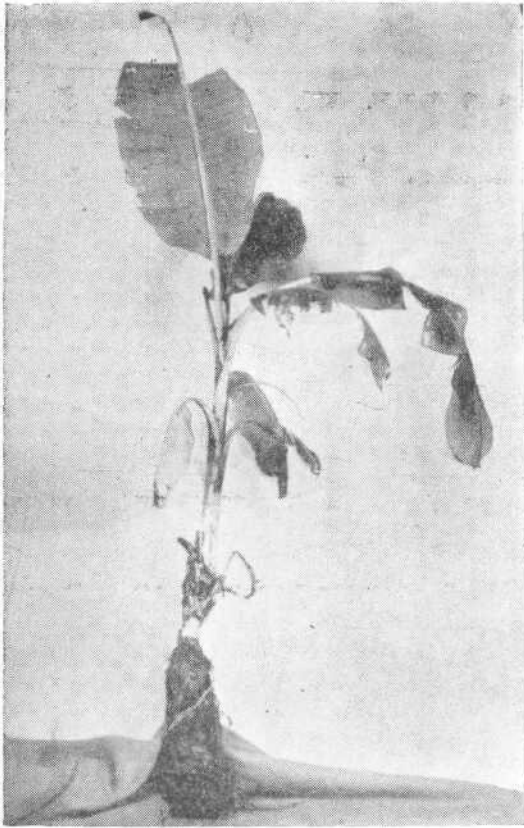


Fig. 1 Mother plant with branched inflorescence emerging from the axil.

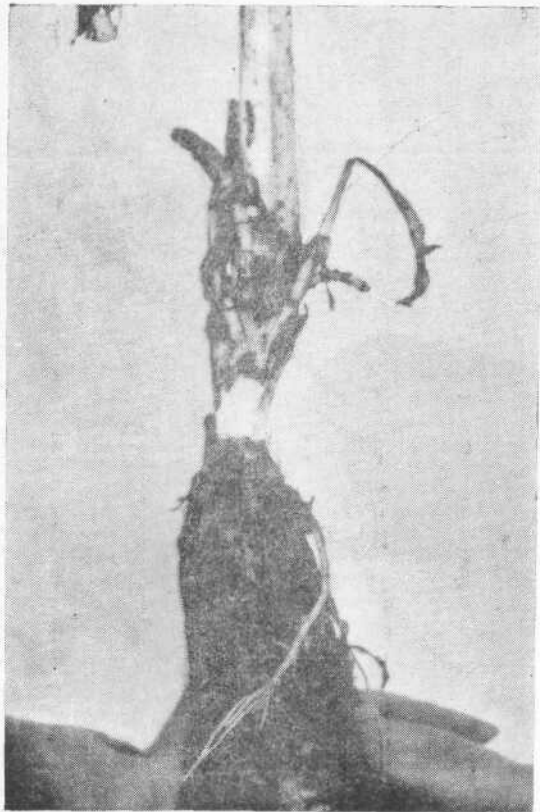


Fig. 2 Branched inflorescence with leafy structure.

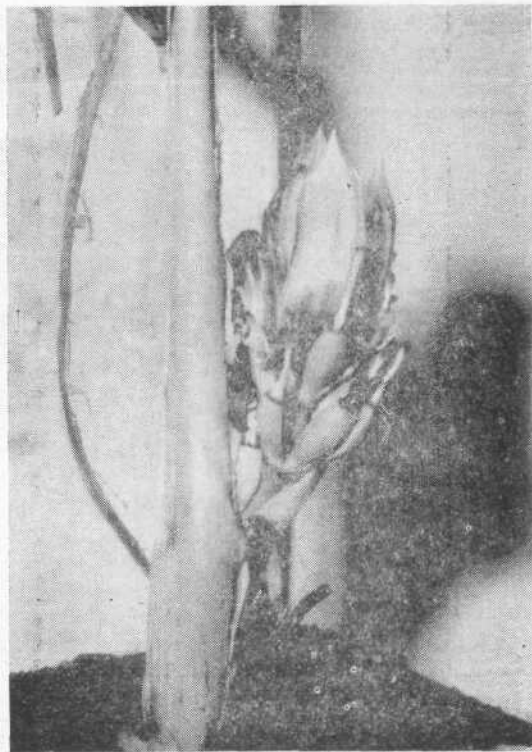


Fig. 3 Emergence of the normal bunch piercing the pseudostem.