

GROWTH INHIBITION OF *RHIZOPUS STOLONIFER* CAUSING SOFT ROT OF BANANA BY CHEMICAL APPLICATION

BY

M. K. PAL, P. DATTA MAJUMDER AND N. C. CHATTOPADHYAY
Department of Life Science, Calcutta University Post-Graduate Centre
Agartala-799004

Banana, one of the important fruit is eaten up as ripe and to some extent as vegetables. Post-harvest rots of the fruit are generally observed almost throughout the year in a moderate to severe form. Fruit rot caused by different species of *Rhizopus* has been reported from different parts of the country (Chattopadhyay and Mustafee, 1967 ; Chenulu and Thakur, 1968). As the rot of Banana fruits (Champa variety) caused by *Rizopus stolonifer* was not reported from North-East region of the country and reports on the control of their rots are scanty, the present paper has been dealt with to evaluate the efficacy of some of the commonly available fungicides and chemical on the growth of the casual organism.

Fungicides and chemical, viz. Hexaferb, Fytolan, Bavistin, Blitox, Agrosan GN and $ZnCl_2$ were tested against the fungus by poisoned food technique. Desired concentration (0.05%) of each chemical was incorporated in sterile PDA medium, shaken thoroughly and poured into sterilized petridishes. The plates were inoculated with mycelial disc (5mm diam) of the fungus from the margin of 5 days old culture and incubated at $28^{\circ} \pm 2^{\circ}C$ in darkness. The percent growth inhibition was calculated and chemical efficacies were graded.

It is clear from the result (Table 1) that some chemicals were able to reduce the growth of the fungus *in vitro* while others exhibited no response towards inhibition

Table 1. Effect of fungicides on the growth of *Rhizopus stolonifer*

Fungicides (Conc. 0.05%)	Growth in diam (cm)*
Agrosan GN	8.20
Zinc chloride	7.90
Blitox	6.20
Bavistin	6.00
Fytolan	1.20
Hexaferb	No Growth

* Data are mean of three replicates

ef growth of the fungus. Hexaferb at 0.05% concentration was able to check the growth of the fungus completely *invitro*. This was followed by Fytolan (1.2%). Other fungicides showed no appreciable inhibitory effect on the growth of the fungus. In the present experiment $ZnCl_2$ was tested against the growth response of the fungus which showed no response at all. Thakur and Chenulu (1973) while working on the effect of toxic chemicals on the growth response of *Rhizopus arrhizus* causing soft rot of potato reported $HgCl_2$ at 0.01% concentration was effective against the pathogen.

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