

Table 1 Effect of pesticide applications on growth and yield of okra

Parameters analysed	Control	Carben- dazim 0.05%	Monocro- tophos 0.1%
Mean height of plants (cm)	87.0	80.2	92.2
Mean no. of leaves/plant	10.3	10.8	12.7
Mean no. of fruits/plant	6.5	7.4	10.2
Mean no. of seeds, fruit	28.9	25.4	21.6
Mean wt. of fruits/plant (g)	58.4	47.6	58.3
1000 seed wt. (g)	53.9	51.6	60.1

Sudhakaran⁷ stated that in *C. roseus* (= *V. rosea*) tetraploid grains frequently produce more than one pollen tube. He noticed branching of pollen tubes in higher concentrations of sugar. In the present study a close correlation between the nature of pollen tube formation, seed set and seed quality has been noticed. It was observed that in monocrotophos treatments there was multiple pollen tubes, better fruit set, and seed quality (table 1). Thus the multiple tubes appear to enhance the chances of fertilization. However, only histological studies revealing the movement of the pollen tube through the stigma and style can provide conclusive result to this aspect.

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OCCURRENCE OF ENDOTROPHIC MYCORRHIZAL FUNGUS IN AGARWOOD PLANT *AQUILLARIA AGALLOCHA* (ROXB)

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OIL from agarwood is used in the perfumery industry as retainer of scents. The oil is considered to be a pathological product produced by fungal invasion of the host. Study of plant/fungal association showed a vesicular arbuscular mycorrhizal (VAM) fungus in roots.

Randomly selected pieces of thin lateral roots were washed, cut into small pieces and cleared by autoclaving in 10% KOH at 5 psi for 10 min and treated with dil. HCl, washed, bleached with H₂O₂ and stained with 0.1% trypan blue¹ for assessing the degree of infection. One cm root bits were mounted on slides and the length of the piece containing the endophyte was recorded².

Vesicles were abundant in the entire infected roots, about 3-4 per field (16 × 10), spherical to elliptical 10 μm dia to 13 × 6 μm in size, deeply stained. Some vesicles contained young spore and hyphae running parallel to the long axis of the roots, inter- and intracellular measuring 3.0 μm. No difference was noted in the width of the external and internal hyphae. The root pieces were infected to an extent of 75% of their length. Only the fine lateral branches of the roots, showed the endophyte. In older segments, it was absent or sparsely distributed.

Mycorrhizal associations are of particular importance to plants in nutrient poor soils or at high elevations^{3,4}. It has been reported that VAM infection has some relationship with the predisposition of the plant to disease⁵. The VAM symbiosis with *A. agallocha* and quantitative evaluation of oil production in different localities are subjects for future investigation.

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