

12 dorsal spines. Reproductive females less than 1.5 mm. Maximum adult size 2.2 mm.

Male with anteriorly projecting helmet, rostrum absent; dorsal margin of head and body with spines. Antennules well-developed and movable; flagellum in the antennules not well-developed. Eye moderately large and the ocellus inconspicuous. Ventral margin of carapace convex. Tail long (figure 1). The first leg modified to form a prehensile organ and each terminates in a long seta which protrudes beyond the shell to the exterior. Postabdomen with 10 to 12 dorsal spines, dorsal margin without processes. Maximum size 1 mm.

The present species can be considered as rare in the tropical region.

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BLOSSOM BLIGHT OF GLADIOLUS CAUSED BY *CURVULARIA ERAGROSTIDIS*

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GLADIOLUS (*Gladiolus* sp.) is an important ornamental crop and is cultivated mainly for its much sought cut flowers. Incidence of a severe blossom blight disease of gladiolus varieties has been consistently observed during the monsoon months in the experimental farm of the Institute. The incidence of the disease was more serious in the cv. "Friendship". Initial symptoms are noticed on the calyx of young buds in the form of water-soaked patches. These soon enlarge in size and turn brown to black in colour with the onset of sporulation of the pathogen (figures 1, 2).



Figures 1 & 2. Infection symptoms on gladiolus cv. "Friendship" 1. Infected flowers showing typical symptoms ($\times \frac{1}{3}$ nat. size) 2. Enlarged lesions on partially opened flower and young bud ($\times 1$).

Infected buds shrivel, fail to open and rot. The development of bud rot is faster during moist warm weather. Sometimes, partially opened flowers are also infected; the individual petals become brown, shrivel and subsequently decay.

The pathogen was isolated from infected flower buds on potato dextrose agar (PDA) and later purified by single conidial transfer. On PDA the colonies were effuse and brown to black in colour. Conidiophores arise in small groups of 3–8, are simple, smooth, straight to flexuous, often bent at several points, dark brown, bearing solitary conidia. The conidiophores measure 70–122.5 (93.25) × 3.75–7.5 (5) μ in size. Conidia are solitary, simple, smooth, clavate to ellipsoidal, some obovoid or pyriform in shape, middle cell distinctly bent, dark brown with 2–3 transverse septa. The end cells are paler than other cells. In most of the conidia the middle septa are more thick and darker. Conidia measure 25–35 (29.75) × 12.5–16.25 (13.75) μ in size.

Pathogenicity tests were carried out by atomising conidial suspension on young buds and freshly opened flowers of cv. "Friendship". Typical symptoms developed after 5–7 days of inoculation. Reisolation from induced lesions established identity with the original isolate. Control plants remained healthy. Morphology and other diagnostic characters indicated identity of the pathogen with *Curvularia eragrostidis* (P. Henn.) J. A. Meyer, to which it is referred. Subculture of the fungus has been deposited at the Commonwealth Mycological Institute, Kew, England under I.M.I. No. 271156.

The only species of *Curvularia* reported so far on gladioli is *Curvularia trifolii* var *gladioli* Parmelee and Luttrell, which was first described by Magie¹ and subsequently by Parmelee^{2,3} from Canada and later from India⁴. This species causes leaf spot, blossom blight and corm rot. However, the present species is distinct from the former in morphology and other diagnostic characters and also in its preferential affinity to parasitise only flowers. Parasitism of *Curvularia eragrostidis* on gladiolus has been hitherto unreported from India or elsewhere and therefore constitutes the first record.

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BACULOVIRUS—A NEW PATHOGEN OF MANGO NUT WEEVIL, *STERNOCHETUS MANGIFERAE* (FABRICIUS) (COLEOPTERA: CURCULIONIDAE)

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THE Nut weevil, *Sternochetus mangiferae* (Fabricius) is a destructive pest of mango and is distributed widely in tropical countries of the world. In India, the nut weevil is serious throughout southern and eastern parts of the country. Studies conducted in Karnataka on the extent of damage revealed that the fruit damage ranged between 42 to 93% in different mango cultivars¹. The pest is one of the major constraints in the export of mango fruits.

During 1982–83, the survey studies conducted on natural enemies of *S. mangiferae* revealed the presence of diseased grubs in infested mango fruits. The infected grubs initially exhibited the symptoms of loss of appetite and sluggishness. Later, the integument turned brown, fragile and the body became flaccid. The grubs died inside the stone. The haemolymph of the diseased grubs turned turbid and milky in colour. Zelazny² reported similar symptoms in baculovirus-infected grubs of *Oryctes rhinoceros* from Philippines and Indonesia.

As the grubs were suspected to be virus-infected, further studies were carried out on isolation, purification and identification of virus under electron microscope. Several infected grubs were macerated in 0.05 M phosphate buffer (pH 7.2) in a blender for 5 min and filtered through double muslin cloth. The filtrate was centrifuged at 10,000 g for 15 min and the supernatant was retained. The clarified sap was then mixed with 6% polyethylene glycol (6000 molecular weight) and shaken for 30 min and then centrifuged in a refrigerated high speed centrifuge at 30,000 g for 1 hr. The supernatant was discarded and the pellet was dissolved in 0.05 M phosphate buffer. The virus was further purified by differential ultracentrifugation at 1,50,000 g for 2 hr. The pellet was dispersed in 0.05 M phosphate buffer (pH 7.2) and again centrifuged at 7,000 g for 10 min. The supernatant was collected for electron microscopy. The purified virus suspension was sprayed on formvar coated copper grid and examined in JEM 100-S (JEOL) model transmission electron microscope. The rod-shaped particles of baculovirus were observed in the electron microscope