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The Gladiolus Thrips, *Thrips simplex* (Morison), in Florida (Thysanoptera: Thripidae)[1]

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INTRODUCTION—The gladiolus thrips was described by Morison (1930) as *Physothrips simplex* from five female specimens collected on carnation flowers, *Dianthus caryophyllus*, from Urrbrae, South Australia. The holotype and 1 paratype are deposited in the British Museum. Moulton and Steinweden (1931) described this thrips under the name *Taeniothrips gladioli* from Ontario, Canada, and it was synonymized by Steele (1935). Bhatti (1969) placed *gladioli* in the genus *Thrips*. Kellie O'Neill of the U.S. National Museum (retired) has suggested that this thrips probably originated in Africa as did its preferred host, gladiolus, *Gladiolus x hortulanus*.

DISTRIBUTION—Gladiolus thrips is widespread and is found where gladiolus are grown in Africa, Asia, Australia, the Pacific Islands, Europe, and North and South America. It is found in almost all states of the United States. Although it cannot overwinter out-of-doors in northern Europe and northern North America, the spread of this thrips probably results from its infested corms being shipped to all parts of the country. It was first found in Florida in 1932 (Watson, 1941).

Fig. 1. Florets on right showing thrips damage.

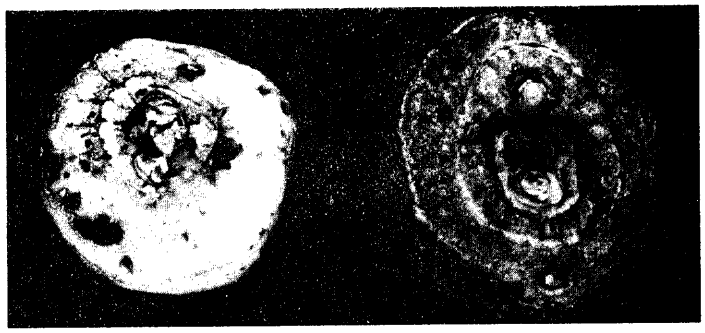

Fig. 2. Corm on right showing advanced stage of injury.

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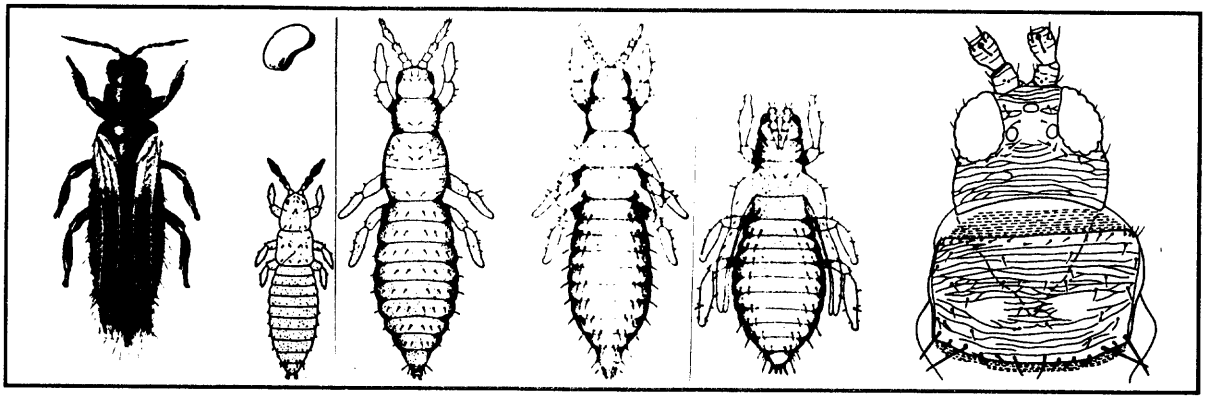

Fig. 3 . Adult female.

Fig. 4 & 5. Egg and 2 larval stages.

Fig. 6 & 7. lst & 2nd pupal stages.

Fig. 8. Head & prothorax showing setae (After L.J. Stannard).

HOSTS—The thrips feeds and reproduces primarily on gladiolus flower spikes (Fig.1) and corms (Fig.2); however, it has been recorded from *Philodendron selloum, Clitoria* sp., *Rhododendron indicum, Calendula,* and crow-foot grass, *Eleusine indica.* This thrips has never been reared from these plants and they cannot be considered valid hosts. It was reported to reproduce on *Tritonia* sp., *Tigridia* sp., and *Kniphofia* sp.

DESCRIPTION—Adults emerge milky-white, but soon turn dark brown and begin feeding. The female (Fig.3) is approximately 1.65mm long and slightly larger than the male. The antennae are dark brown except for the 3rd segment which is light brown. The wings have a light tranverse band near the base. The egg (Fig.4) is about 0.3mm long, opaque white, smooth, and bean shaped. Eggs are deposited in the leave tissue and corms. The 2 larval stages (Fig.5) are light yellow and are usually found beneath the leaves or bracts. The fully developed 2nd instar larva is about the size of the adult. The lst pupal stage (Fig.6) is distinguished from the 2nd pupal stage by having forward projecting antennae and short wing pads. The 2nd pupal stage, which is a quiescent period, (Fig.7) has the antennae folded over the back and much longer wing pads. The head and prothoracic setae are shown in Fig.8.

CONTROLS—Acephate is registered for gladiolus thrips control on gladiolus. Other products registered for thrips control on gladiolus are bendiocarb, carbaryl, diazinon, dimethoate, methomyl, oxamyl, permethrin, and pyrethrins with piperonyl butoxide (Magie et al. 1988). See label directions. Contact your County Agricultural Extension agent for recommendations.

LITERATURE CITED

Bhatti, J. S. 1969. Taxonomic studies in some Thripini (Thysanoptera: Thripidae). Orient. Insects 3(4):373-382.

Magie, R. O., A. J. Overman, J. P. Gibreath, W. E. Waters, G. J. Wilfret, J. F. Price, and S. S. Woltz. 1988. Gladiolus corm production. Gladio Grams Bull. No. 69:2-28.

Morison, Guy D. 1930. On a collection of Thysanoptera from South Australia. Bull. Ent. Res. 21:9-14.

Moulton, Dudley and John B. Steinweden. 1931. A new *Taeniothrips* on gladiolus. Canadian Ent. 43(1):20-21.

Steele, H. Vevers. 1935. Thrips investigation: Some common Thysanoptera in Australia. Council for Scientific and Industrial Research, Commonwealth of Australia, Pamphlet 54, 59 p.

Watson, J.W. 1941. The gladiolus thrips in Florida. Univ. of Fla. Agr. Exp. Sta. Bull. 357, 23 p.

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