

Pestalotia Root Rot : A New Disease on Strawberry Plants in Egypt

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A SURVEY of soil borne fungi attacking strawberry plants in Ismailia Governorate, Egypt resulted 593 fungal isolates; among of them 71 isolates belong to *Pestalotia longisetula* (*Pestalotiopsis longisetula*) out of these isolates (15.49%) were isolated from soil and 60 isolates (84.51%) from diseased strawberry plants, (Tamar and Yael cvs.). *Pestalotia longisetula* was higher frequency with Yael cv. than Tamar cv., which recorded 35.52 and 30.99% respectively. Also, higher frequency occurred with *Pestalotia longisetula* in nursery stage (65%) compared with the field production (35%). On the other hand, less *Pestalotia longisetula* frequency occurred with diseased runners (8.33%) in comparison with diseased strawberry roots (61.67%) in both Tamar and Yael cvs.

Examination of *Pestalotia longisetula* by light microscope (LM) and (SEM) examination studies showed presence of fungus acervular conidimata, conidial septate, single conidia has appendage with 2-3 branches and five cells. Transmission electron microscope examination of conidia showed thick cell wall and cell membrane. The cytoplasm contains nucleus, mitochondria, vacuoles and cytoplasmic granules.

No pores were found between apical and subapical cell and spezenkorper region was observed in the apical cell of spore in longitudinal section. Longitudinal section of fungal hypha showed moderate thick wall, thin membrane, mitochondria and other organelles.

Four enzymes, *i.e.*, pectinase, cellulase, chitinase and dehydrogenase were estimated in *Pestalotia* culture medium.

Also, *Pestalotia longisetula* was found to produce two mycotoxin, *i.e.* ochratoxin A and mycophenolic acid.

Keywords: *Fragaria x ananassa*, Fungal diseases, Root rot, *Pestalotia longisetula*, *Pestalotiopsis*.