1. PaDIL Species Factsheet

Scientific Name:
*Peronosclerospora spontanea* (W. Weston) C.G. Shaw
Oomycetes, Sclerosporales (Downy Mildew)

Common Name
Downy Mildew of Maize
Live link: http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/136641

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Plant Health Australia

Department of Agriculture, Fisheries and Forestry

Department of Agriculture and Food, Western Australia
2. Species Information

2.1. Details

**Specimen Contact:** -
**Author:** McTaggart, A., Cumagun, C.
**Citation:** McTaggart, A., Cumagun, C. (2007) Downy Mildew of Maize (*Peronosclerospora spontanea*)
**Image Use:** Free for use under the Creative Commons Attribution 3.0 Australia licence

2.2. URL

Live link: http://www.padil.gov.au:80/pests-and-diseases/Pest/Main/136641

2.3. Facets

**Status:** Exotic species - absent from Australia
**Group:** Fungi
**Commodity Overview:** Field Crops and Pastures
**Commodity Type:** Grains, Grasses
**Distribution:** Australasian - Oceanian

2.4. Other Names

*Sclerospora spontanea* Watson

2.5. Diagnostic Notes

**Symptoms**

Forming linear or irregular whitish yellow to pale spots, often entirely discolouring the leaves and deforming the host. Extremely destructive to maize (Waterhouse 1964).

**The fungus:**

Mycelial hyphae growing intercellularly in all parts of host except roots, branched, slender, approx. 8 µm in diam., but irregularly constricted and inflated, haustoria simple, vesiculiform to subdigitate, small, about 8 µm long and 2 µm in diam. Conidiophores always produced in night dew and growing out of stomata, erect, 350–550 × 15–26 µm, bearing a basal cell in the lower part. Basal cell with few knobs and slightly expanded at base, 140× 5–8 µm, usually exceeding or equalling the extent of the main axis from the septum to primary branches in length. Main axis usually expanding abruptly above the septum to a greater width, 22–32 µm and constricting noticeably to about 20 µm below the branches, dichotomously branched 2–4 times above. Branches robust, sterigmata conoid to subulate, 13 µm long, straight. Conidia elongate ellipsoid to cylindrical varying in size, usually 39–45 × 15–17 µm, hyaline, with thin episporium, minutely granular within, thin wall, slightly rounded at the apex lacking papilla, rounded base with a minute apiculus of attachment, germinating by tube. Oospores unknown. (Waterhouse 1964).

2.6. References

Waterhouse GM (1964) The genus Sclerospora. Diagnoses (or descriptions) from the original papers and a
3. Diagnostic Images

Chlorotic streaks on young Maize leaves: C. Cumagun University of the Philippines Los Banos

(author: C. Cumagun, University of the Philippines Los Banos; copyright Christian Cumagun, for use contact christian_cumagun@yahoo.com)

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Chlorotic streaks on young Maize leaves: C. Cumagun University of the Philippines Los Banos

Downy mildew of maize: T. Cooke Department of Primary Industries and Fisheries

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