

1. PaDIL Species Factsheet



Scientific Name:

Ustilago bromivora (Tul. & C. Tul.) A.A. Fisch. Waldh.

Basidiomycota, Ustilaginomycetes, Ustilaginales, Ustilaginaceae

Common Name

Bromus smut

Live link: <http://www.padil.gov.au/aus-smuts/Pest/Main/140212>

Image Library

Smut Fungi of Australia

Live link: <http://www.padil.gov.au/aus-smuts/>

Partners for Smut Fungi of Australia image library



Queensland Queensland Government
Government <https://www.daf.qld.gov.au/>

2. Species Information

2.1. Details

Specimen Contact: Roger Shivas - roger.shivas@deedi.qld.gov.au

Author: Roger Shivas

Citation: Roger Shivas (2010) *Bromus smut(Ustilago bromivora)* Updated on 12/16/2010 Available online: PaDIL - <http://www.padil.gov.au>

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2.2. URL

Live link: <http://www.padil.gov.au/aus-smuts/Pest/Main/140212>

2.3. Facets

Columella: absent

Distribution: ACT, NSW, QLD, SA, TAS, VIC, WA

Host Family: Poaceae

Peridium: present

Sorus position: inflorescence

Sorus shape: bullate (blister-like swellings), long cylindrical, globose to short cylindrical, irregular (includes naked sori), indistinct (includes leaf spots)

Spore balls: absent

Spore mass texture: agglutinated, powdery

Spore shape: globose or subglobose, irregular, ovoid to ellipsoidal, polyhedral or subpolyhedral

Spore surface ornamentation: verrucose or tuberculate, verruculose

Status: Exotic establishment in Australia

Sterile cells: absent

2.4. Other Names

Cintractia patagonica Cooke & Masee

Sorosporium lavrovianum Smarods

Sorosporium maroccanum Unamuno

Ustilago brachypodii-distachyi Maire

Ustilago bromi-arvensis Liro

Ustilago bromi-mollis Liro

Ustilago carbo d bromivora Tul. & C. Tul.

Ustilago compacta G.W. Fisch.

Ustilago grossheimii Uljanishchev

Ustilago holwayi Dietel

Ustilago hordeicola Speg.

Ustilago jamalainenii Liro

Ustilago lorentziana Thüm.

Ustilago patagonica (Cooke & Masee) Cif.

Ustilago patagonica (Cooke & Masee) Lavrov

Ustilago pospelovii Uljanishchev

Ustilago zernae Uljanishchev

2.5. Diagnostic Notes

****Sori**** in the spikelets, usually destroying the basal parts of the glumes and even the ovaries, bullate, at first agglutinated and covered by the epidermis but becoming dusty, black or blackish brown. Infection systemic; seedlings and older shoots infected.

****Spores**** globose to subglobose, occasionally ovoid or irregularly polyhedral, 8–11 × 6.5–9.5 µm, olivaceous to reddish brown, often with a darker equatorial band; wall uniformly thick to slightly uneven, 1.0–1.5 µm, in LM finely to rather coarsely verrucose, more pronounced on the polar regions, in SEM coarsely verrucose.

****Spore germination**** spore usually forming a pair of 2-celled basidia (occasionally one 3-celled and one 1-celled) on which terminal and lateral ovoid basidiospores are borne. Sometimes only one 2-celled basidium is produced, the 2 cells conjugating and giving rise to a dikaryotic mycelium or, rarely, to 2 basidiospores.

3. Diagnostic Images



Ustilago bromivora on *Bromus diandrus* -
BRIP 45364. Scale bar = 5 mm
Host symptoms: Roger Shivas DEEDI



Ustilago bromivora on *Bromus catharticus* -
BRIP 46341. Scale bar = 10 μ m
Light micrograph: Roger Shivas DEEDI

Results Generated:

Tuesday, October 19, 2021
