Mini data sheet on *Clavibacter nebraskensis* causing Goss's wilt of maize

Clavibacter nebraskensis was added to the EPPO A1 List in 2026. A full datasheet will be prepared, in the meantime you can view here the data which was previously available from the EPPO Alert List (added to the EPPO Alert List in 2025 – deleted in 2026).

Why: *Clavibacter nebraskensis* causes Goss's wilt and leaf blight of maize in North America. In recent years, its occurrence and impact has increased in the USA, and it was recently reported from Mexico and South Africa. Considering its potential impact on maize in the EPPO region, the EPPO Secretariat considered it useful to add it to the EPPO Alert List.

Where: *C. nebraskensis* was first described in the USA. Researchers mentioned the presence of the bacteria in Mexico, but this record is not considered valid by the NPPO of Mexico.
Africa: South Africa.
North America: Canada (Alberta, Manitoba), United States of America (Colorado, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Texas, Wisconsin, Wyoming).

On which plants: Maize (*Zea mays*) is the only economic host. A number of Poaceae species are reported to act as secondary hosts for *C. nebraskensis*.

Damage: *C. nebraskensis* is a Gram-positive, non-flagellated, non-spore forming, aerobic coryneform bacterium that forms yellow colonies on most growth media. It causes large (2–15 cm) tan to grey elongated oval lesions with wavy, irregular water-soaked margins on maize leaves. The lesions often start at the leaf tip or are associated with wounding caused by hail or wind damage. Early infection may become systemic and cause seedlings to wilt, wither, and die. Significant yield losses of up to 50% have been recorded.
Goss's wilt symptoms, development, and effect on yield are similar to those caused by *Pantoea stewartii* subsp. *stewartii* (EPPO A2 List). In fact, *C. nebraskensis* was once considered a more virulent and orange-coloured strain of *P. stewartii* subsp. *stewartii*.
Goss's wilt and leaf blight became a major maize disease in the 1970s in the USA before nearly disappearing in the mid-1980s. It unexpectedly re-emerged in 2004 in Colorado and Nebraska, spreading across the central High Plains and expanding to other Midwest states, including Indiana. The re-emergence of the disease is thought to be favoured by new cultural practices such as continuous cropping, reduced tillage, and overhead sprinkler irrigation, as well as climate change. There is no chemical treatment available to control Goss's wilt in the field. *C. nebraskensis*-resistant hybrids have been recently developed.

Dissemination: Seed transmission occurs in maize, although at very low rates. In the areas where the pest is present, the main source of inoculum is infected plant debris.

Pathways: seed of *Zea mays* from countries where the pest occurs.

Possible risks: Maize is an economically important crop which is cultivated across the EPPO region. The disease occurs in areas with climates similar to the ones in the EPPO region and is likely to cause similar impacts.

Sources

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