

## Bacterial blight of rice

*Xanthomonas oryzae* pv. *oryzae* (ex Ishiyama 1922, Swings et al, 1990)  
(Bacteria, Xanthomonadaceae)

### Primary hosts

Rice, species of wild rice (*Oryza sativa*, *O. rufipogon*, *O. australiensis*), and graminaceous weeds, *Leersia oryzoides* and *Zizania latifolia* in temperate regions and *Leptochloa* spp. and *Cyperus* spp. in the tropics.

### Symptoms

Small, green water-soaked spots develop at the tips and margins of fully developed leaves, and then expand along the veins, merge and become chlorotic then necrotic forming opaque, white to grey colored lesions that extend from leaf tip down along the leaf veins and margins. Both bacterial blight and bacterial leaf streak can occur simultaneously and are difficult to distinguish.

### Life cycle

Bacteria enter through hydathodes at the leaf tip or margin, then multiply in intercellular spaces and spread through the xylem. This is different to the invasion and development of *X. oryzae* pv. *oryzicola* which causes Bacterial Leaf Streak of rice. Access into the plant can also occur through wounds and other openings. Bacteria move vertically and laterally along the veins and ooze out from the hydathodes, beading on the leaf surface. Wind and rain disseminate bacteria, monsoon season being the worst time for infection. Contaminated stubble, irrigation water, humans, insects and birds are also sources of infection. Bacteria can survive the winter even in temperate regions in weeds or in stubble. They can survive in soil for 1-3 months.

### Current geographical distribution

Asia, W. Africa, Australia, Latin America, Caribbean in both tropical and temperate areas.

### Impact in Oregon

Negligible.

### References

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