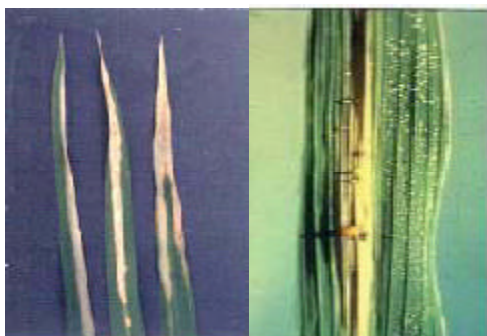


## What is Bacterial Blight?

Bacterial blight (BB) is a disease that affects both seedlings and mature plants. When BB causes wilting in seedlings, it is known as “kresek” and when it attacks leaves, it is known as “bacterial leaf blight”. Infected plants lose leaf area and may produce fewer and poorer quality grains. On seedlings, infected leaves turn grayish-green and roll up.



*Bacterial blight infected leaves (left), bacterial ooze from lesion (right).*

As infection progresses, the leaves turn yellow to straw-colored until the whole seedling dies. Infected seedlings may show kresek (seedling wilt), which can resemble early rice stem borer damage. On older plants, lesions usually start as water-soaked to yellowish stripes on leaf blades or leaf tips. A bacterial ooze that looks like a milky or opaque dewdrop on young lesions forms early in the morning. Lesions can turn yellow to white and severely infected leaves tend to die quickly. These lesions later become grayish from growth of various saprophytic fungi. Panicles become sterile and unfilled but plants are not stunted even under severe conditions. BLB is caused by *Xanthomonas oryzae* pv. *oryzae*. High temperatures, high humidity, rainy weather and excessive Nitrogen application favor the development and spread of BB.

## Why Control Bacterial Blight?

Bacterial blight is a major disease of rice, being common in both tropical and temperate countries, in irrigated and rainfed lowland environments. In infected fields, yield losses can range from 6% to 60% in extreme cases.

### For more information:

For an overall view of crop management practices, visit <http://www.knowledgebank.irri.org/tropRice>. To diagnose problems in the field visit <http://www.knowledgebank.irri.org/ricedoctor>.

Developed with input from C Vera Cruz, IP Oña and MA Bell



*Bacterial blight infected plants in the field.*

## How to Control Bacterial Blight

### Reduce susceptibility of the plant to infection

- Use resistant varieties - This is the most effective method of controlling the disease.
- Balanced fertilization - BB is worse when excessive amounts of N are applied to the crop. Apply balanced levels of plant nutrients, especially nitrogen.

### Reduce seedling damage and disease spread

Seedling infection occurs through wounds and damaged plant parts. Poor handling or strong winds and rain can cause injuries. The disease spreads through direct contact and through water.

- Reduce disease spread by
  - Careful handling of seedlings during transplanting.
  - Maintaining shallow water in nurseries
  - Providing good drainage during severe flooding

### Reduce the amount of inoculum

Infected crop stubble and weeds can be major sources of inoculum.

- Keep fields clean - Remove or plough in weeds, infected straw, rice ratoons and/or rice volunteers (which may all act as sources of inoculum).
- Dry the fields - Allow fallow fields to dry in order to kill the bacteria that may have survived in the soil and plant residues.