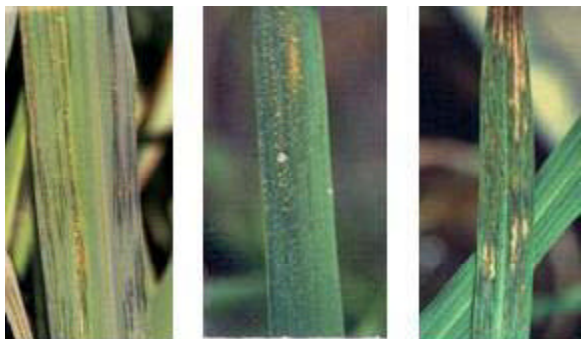


## What is Bacterial Leaf Streak?



*Water-soaked lesions (left), bacterial exudates coming out from the lesions (middle), severely infected leaf (right)*

Bacterial leaf streak (BLS) initially causes narrow, dark-green and water-soaked streaks on the interveins - usually from tillering to booting. As the disease progresses, the streaks become yellowish-gray and translucent with numerous milky to yellow beads of bacterial exudates formed on the surface of the lesions. Later, when the disease becomes severe, the lesions enlarge and coalesce, then eventually turn brown to grayish white causing leaves to die. High temperatures, high humidity and rainy weather favor the development and spread of the disease. BLS is caused by the bacteria *Xanthomonas oryzae* *pv.* *oryzicola*.

## Why Control Bacterial Leaf Streak?

Bacterial leaf streak occurs in both lowland and upland rice areas in tropical Asia and West Africa. The disease causes yield losses through the reduction in thousand-grain weight.

### 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 leaf streak infected plants in the field*

## How to Control Bacterial Leaf Streak?

### Reduce susceptibility of the plant to infection

- Use resistant varieties - This is the most effective method of controlling the disease.
- Balanced fertilization - BLS 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 to the seedlings. 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 to kill the bacteria that may have survived in the soil and plant residues.

*Note: Chemical control is not considered to be economical or effective.*