

# Boll Rot of Cotton

## Recognize the problem

Boll rot is caused by a number of different species, mainly fungi but bacteria can play a part too. Bacteria themselves cannot be seen by eyes but you can see the symptoms they cause. Symptoms of boll rot include the appearance of very small light brown spots on bolls which then become dark brown or black and join together. The boll rot first appears as wet spots which make bolls black. On the infected boll, fungi may develop. In severe cases of attack, the bolls can drop from the plant. Infected bolls either do not open at all, or only partially open. The cotton inside the infected bolls becomes yellow which lowers the price of the cotton in the market. This disease can lower the yield of the cotton crop by up to 20%.

Boll rot. (Photo by Jason Osborn, University of Arkansas System Division of Agriculture, CC BY-SA)



## Background

We see the disease usually on young green bolls. Disease is more likely if the plant has had excess nitrogen and been watered too much. Wet weather and high humidity both increase primary infection of the boll. The disease can also be spread by cotton bugs, which can transfer this disease from infected to healthy bolls by puncturing them with their mouth parts.

## Management

Cultural Control:

1. To control the vegetative growth of the plants, irrigate the field at the recommended time, depending on the variety
2. Stop watering when the plant has grown too big
3. Apply urea (nitrogen) fertilizers at recommended doses

## Chemical Control

1. To stop the spread of this disease, control the cotton bugs when they are becoming a problem (e.g. dusky cotton bug or red cotton bug: 10 per plant) by spraying imidacloprid, profenofos, bifenthrin, etc. at recommended doses. Do not eat and smoke during the spray. Wash hands, eyes and exposed parts of the body after the spray.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

The recommendations in this factsheet are relevant to: Pakistan



Authors: Fayyaz Ahmed, Muhammad Usman Saleem, Syed Ismat Hussain  
Govt. of the Punjab Agriculture Department

Edited by Plantwise.