

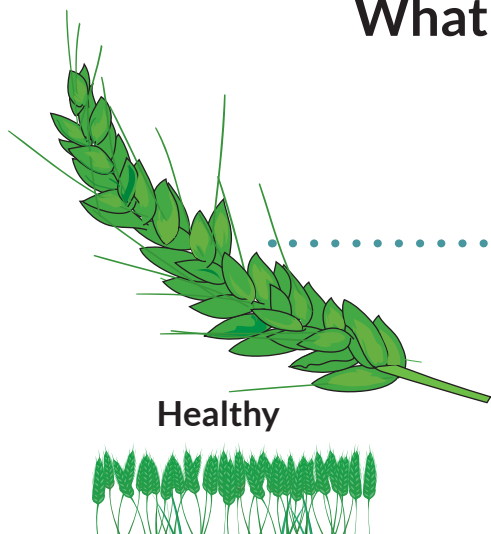
What is wheat blast disease? How can I manage it?



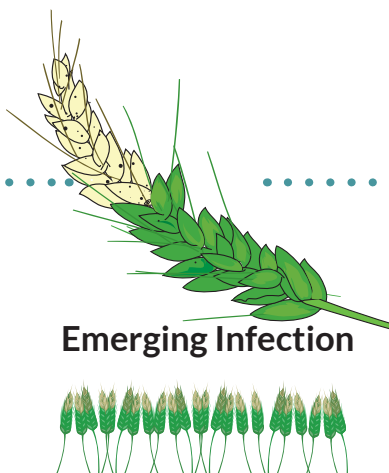
(Magnaporthe oryzae pathotype triticum)

is a devastating fungal disease that can significantly reduce wheat productivity in South Asia

What does wheat blast look like?



Healthy



Emerging Infection



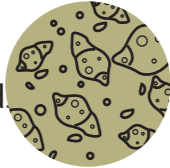
Complete infection



How does blast disease infect wheat crops?



Fungal lesion on wheat or grass weed near farmers' fields



The lesion sporulates



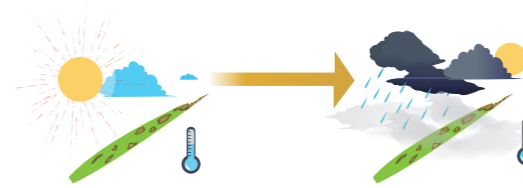
Spores float up into the atmosphere



Wind blows

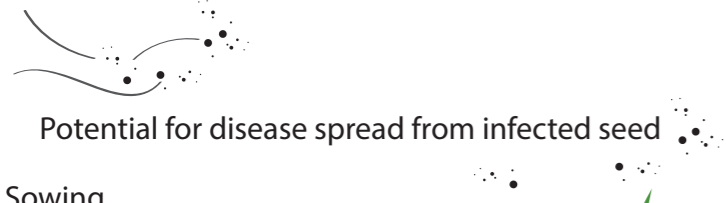


Spores spread



Spores can also be spread in the atmosphere and deposited directly on heads

If temperatures are between 15°C and 27°C, and relative humidity is above 93%, spore production will increase. Foggy weather or rainfall can cause spores to fall from the sky onto leaves or heads, causing blast infections



Potential for disease spread from infected seed

Sowing



Spores can be spread in the atmosphere and are then deposited on leaves

Spores can jump from leaves to infect spikes



Mature plants have large yield losses

What can I do about wheat blast?

Cultural practices to provide a measure of protection against blast



Crop rotation



Use disease free seed



Sow early



Spray fungicides if advised by extension services



Remove grassy weeds



Do not replant seeds from a disease infected field





100 MILLION TONNES

of wheat consumed each year in South Asia by

300 MILLION undernourished people

FIRST OUTBREAK OF WHEAT BLAST

in Bangladesh was in February 2016

average yield loss was

25 - 30%



AFFECTED **15,000** HECTARES



SCIENTISTS REMAIN CONCERNED THAT WHEAT BLAST COULD SPREAD ACROSS SOUTH ASIA

Researchers with the Cereal Systems Initiative for South Asia (CSISA) are working towards solutions to mitigate the threat of wheat blast for smallholder farmers

Funded by



BILL & MELINDA GATES foundation



www.CSISA.org

Partners



International Maize and Wheat Improvement Center (CIMMYT)

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