



Rice blast FUNGUS - (*Pyricularia oryzae*)

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- Rounded to spindle shaped lesions on leaves, with brown borders and greyish centres
- Infected nodes turn black and break easily
- Few, no seeds, or whiteheads when neck is infected



Brown spot FUNGUS - (*Bipolaris miyabanus*)

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- Brown, circular/oval lesions on seedlings, turning light brown with reddish borders on older leaves
- Lesions are often surrounded by a brown or yellow-brown halo
- Grains can be black



White Stem borer INSECT - (*Scirpophaga innotata*)

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- Holes on stem; insect frass;
- central shoots of tillers are dry (dead hearts)
- Discoloured panicles; reduced plant vigour



Brown planthopper INSECT - (*Nilaparvata lugens*)

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- Circular patches of yellow/brown, dry plants; when plants are tapped many small winged insects may be seen



Leaf scald FUNGUS – (*Microdochium oryzae*)

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- Brown/red lesions at the leaf tip and edges, merging to form dry areas with a scalded appearance
- Sometimes lesions are zonate with alternating light tan and dark brown patterns
- infected florets are light to dark, reddish-brown



Stem rot FUNGUS – (*Sclerotium oryzae*)

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- Brown/black lesions on outer leaf sheath, near water line
- Lesions enlarge and sheath becomes rotten; can cause lodging, unfilled panicles and chalky grains



Bakanae FUNGUS – (*Fusarium fujikuroi*)

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- Seedlings abnormally tall, may also be thin and yellow/green
- Fewer tillers and leaves are dry



Army cut worm INSECT – (*Spodoptera litura*)

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- Brown/black caterpillar, feeds on leaves and stem
- Seedlings cut at base
- Leaf surfaces skeletonised, entire plant eaten