

Rice Disease Identification

Photo Link

(Starts on next page)

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Diseases Found In Louisiana Rice

(Click on suspected disease below to view photos and information. Use Return to main page link to start over.)

Seed and Seedling:

[Water Mold \(*Achlya* spp. *Pythium* spp.\)](#)

[Seedling Blight \(Various Fungi\)](#)

[Cold damage \(Cold temperatures\)](#)

[Bronzing \(Zinc deficiency\)](#)

Roots and Crown:

[Crown Rot \(*Erwinia chrysanthemi*\)](#)

[Root Rot \(Various Fungi\)](#)

[Root Knot \(*Meloidogyne* spp.\)](#)

Leaf Blades:

[Leaf Blast \(*Pyricularia oryzae*\)](#)

[Brown spot \(*Bipolaris oryzae*\)](#)

[Narrow brown leaf spot \(*Cercospora oryzae*\)](#)

[Sheath blight \(*Rhizoctonia solani*\)](#)

[Leaf scald \(*Sarocladium oryzae*\)](#)

[Leaf smut \(*Entyloma oryzae*\)](#)

[Stackburn \(*Alternaria padwickii*\)](#)

[White leaf streak \(*Mycovellosiella oryzae*\)](#)

[White tip \(*Aphelenchoides besseyi*\)](#)

[Bacterial panicle blight \(*Xanthomonas oryzae* pv. *oryzae*\)](#)

Stem and leaf sheath:

[Sheath blight \(*Rhizoctonia solani*\)](#)

[Stem rot \(*Magnaporthe salvinii*\)](#)

[Sheath spot \(*Rhizoctonia oryzae*\)](#)

[Crown sheath rot \(*Gaeumannomyces graminis*\)](#)

[Cercospora net spot \(*Cercospora oryzae*\)](#)

[Sheath rot \(*Sarocladium oryzae*\)](#)

[Flag leaf collar blast \(*Pyricularia oryzae*\)](#)

[Node blast \(*Pyricularia oryzae*\)](#)

[Sheath blotch \(*Pyrenochaeta oryzae*\)](#)

[Aggregate leaf spot \(*Rhizoctonia oryzae-sativae*\)](#)

Panicle, Florets and Grain:

[Rotten neck blast \(*Pyricularia oryzae*\)](#)

[Straighthead \(Arsenic induced, unknown physiological disorder\)](#)

[Head blight \(Various fungi\)](#)

[Panicle blast \(*Pyricularia oryzae*\)](#)

[Bacterial panicle blight \(*Burkholderia glumae*\)](#)

[Downy Mildew \(*Sclerophthora macrospora*\)](#)

[Grain spotting or Pecky rice \(Various fungi and bacteria\)](#)

[Kernel smut \(*Tilletia barclayana*\)](#)

[False smut \(*Ustilaginoidea virens*\)](#)

Water Molds



Scientific name:

Achlya spp. *Pythium* spp.

Common name:

Water Molds, seed-rot, and seedling disease

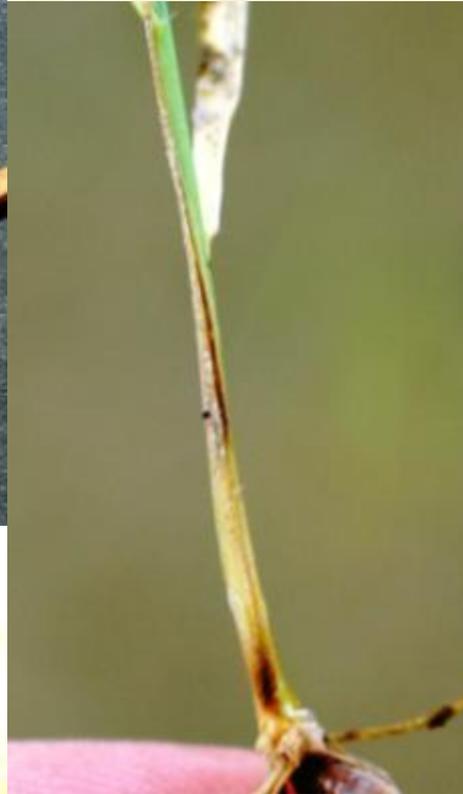
Description:

Water seeded rice: seeds rotted after draining water from field, copper or greenish-brown spots on soil surfaces or above rotted seeds coarse, bristly mycelium radiating from seed (*Achlya* spp) or gelatinous matrix surrounding each affected seed (*Pythium* spp)

Distribution:

Most common in water seeded rice. Present in all rice growing areas.

Seedling Blight



Scientific name:

Cochliobolus miyabeanus,
Curvularia spp., *Fusarium spp.*,
Rhizoctonia solani Kuhn,
Sclerotium rolfsii Sacc.
and other pathogenic fungi.

Common name:

Seedling Blight

Description:

Brown spot on coleoptiles
or growing point, seedling
Suddenly dying

Distribution:

Present in all rice growing areas.

Cold damage



Scientific name:

Cold temperatures after emergence

Common name:

Cold damage

Description:

White band on leaf blade where soil line was during cold period.

Distribution:

In all rice growing areas when seedling exposed to cold temperatures

Bronzing



Scientific name:

Zinc deficiency

Common name:

Bronzing

Description:

Linear reddish-brown lesions on leaf, purple-brown blotches on older plants leaves yellow to bronze lower leaves floating on water surface, seedlings dying and disappearing below water surface.

Distribution:

Throughout Louisiana in cold temperatures.

Crown Rot



Scientific name:

Erwinia chrysanthemi

Common name:

Crown rot or foot rot

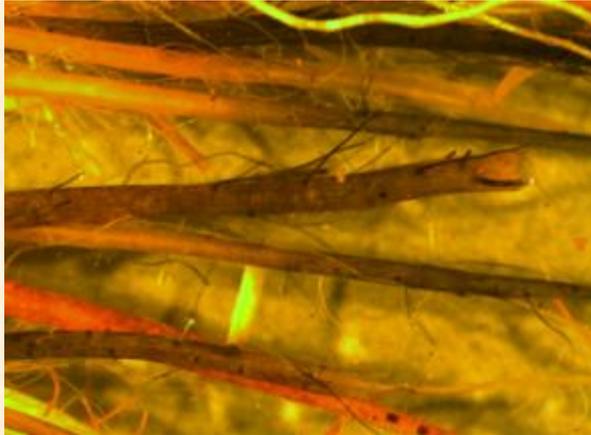
Description:

Soft rot of crown area extending into lower internode, fetid odor of soft rot, tillers dying one at a time, roots dying and turning black, adventitious roots produced at node above crown area. A similar crown discoloration may be caused by misapplication of a hormonal herbicide such as 2,4 -D to early.

Distribution:

In all parishes.

Root rot



Scientific name:

Various fungi

Common name:

Root rot and feeder root necrosis

Description:

Black discoloration of roots and fine feeder roots.

Distribution:

Throughout Louisiana especially during cold periods and when roots damaged by insect feeding

Distribution:

In all parishes

Root knot



Scientific name:

Meloidogyne spp.

Common name:

Root knot

Description:

Roots with swollen areas, found only under dry-land conditions

Distribution:

Found in all parishes but extremely rare.

Leaf Blast



Scientific name:

Pyricularia oryzae

Common name:

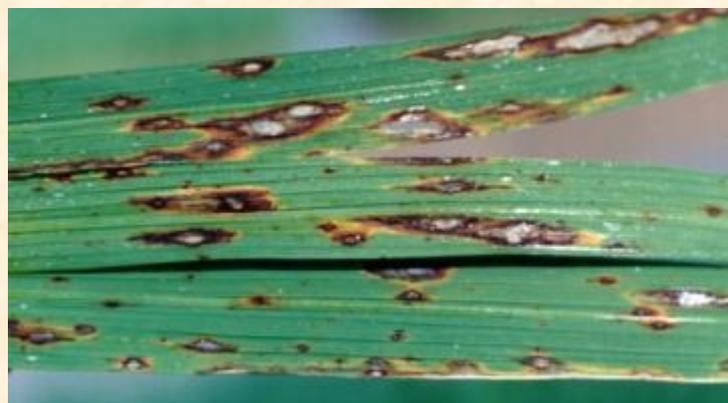
Leaf blast

Description:

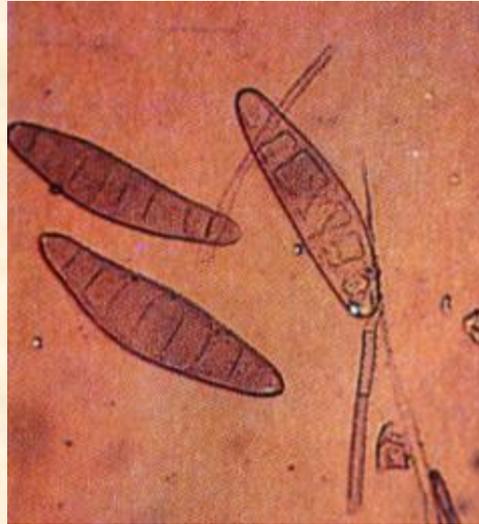
Lesions varying from small round, dark spots to oval spots with narrow reddish-brown margins and gray or white center, spots becoming elongated, diamond-shaped or linear with wit pointed ends and gray dead areas in the center surrounded by narrow reddish-brown.

Distribution:

Throughout Louisiana. Most common where the flood has been lost or rice drained



Brown Spot



Scientific name:

Cochliobolus miyabeanus

Common name:

Brown spot

Description:

Round to oval, dark-brown lesions with yellow or gold halo; as lesions enlarge, they remain round, with center area necrotic, gray and the lesion margin reddish-brown to dark brown.

Distribution:

Throughout Louisiana especially where rice is under stress.

Narrow brown leaf spot



Scientific name:

Cercospora oryzae

Common name:

Narrow brown leaf spot

Description:

Long narrow brown or reddish-brown lesions parallel With leaf veins; usually restricted to area between veins; lesions may occur on leaf sheaths. Under very favorable conditions Lesions can expand across veins and leaves may be killed.

Distribution:

Found in every parish and every field in Louisiana.

Sheath blight



Scientific name:
Rhizoctonia solani

Common name:
Sheath blight

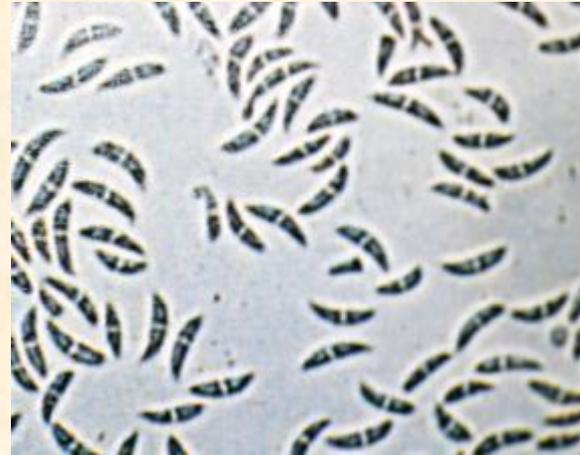
Description:

Lesions consist of alternating wide bands of whit, greenish-gray to tan with narrow bands of reddish-brown or brown; Lesions begin at base of blade, spreading from leaf sheath or from infection point on leaf
Fungal mycelium may be seen under very moist conditions.
Fungal survival structures called sclerotia may form on leaf surface. Under favorable conditions bird nest area of dead tissue may form.

Distribution:

Throughout Louisiana in every field.

Leaf Scald



Scientific name:

Microdochium oryzae

Common name:

Leaf scald

Description:

Lesions consist of wide bands of gray dying tissue alternating with narrow reddish-brown bands. Band patterns in chevrons from leaf tip or edges. Sometimes lesions are tan blotches at leaf edges with yellow or golden borders.

Distribution:

Throughout Louisiana

Leaf smut



Scientific name:

Entyloma Oryzae

Common name:

Leaf smut

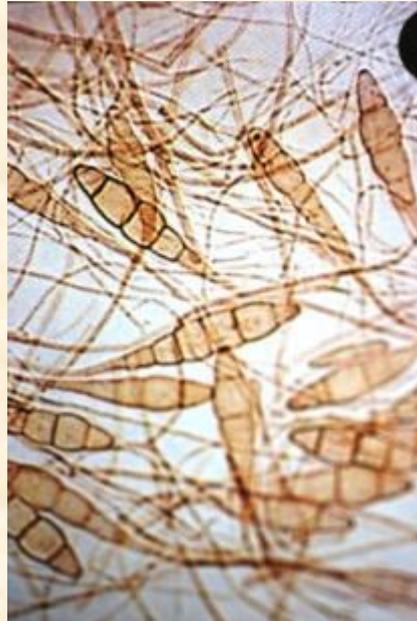
Description:

Small black linear lesions on leaf blade lesions may have dark gold or light brown halo, leaf tip dries and turns gray as plants approach maturity, lesions may be present on upper sheath.

Distribution:

Found in all rice growing areas in Louisiana.

Stackburn



Scientific name:

Alternaria padwickii

Common name:

Stackburn or Alternaria leaf spot

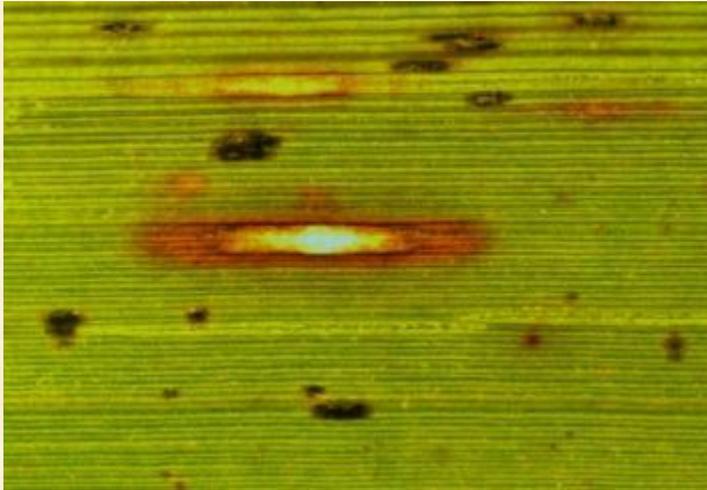
Description:

Round or oval white or pale tan spot with marrow red or reddish-brown margin; often two adjacent spots coalesce to form an oval double spot; lesions with small black fruiting structures in the center.

Distribution:

Throughout Louisiana

White leaf streak



Scientific name:

Mycovellosiella oryzae

Common name:

White leaf streak

Description:

Long narrow lesions with white center and brown borders. Very similar to narrow brown leaf spot.

Distribution:

Throughout Louisiana but rare

White tip



Scientific name:

Aphelenchoides besseyi

Common name:

White tip

Description:

Leaf tips turn white with a yellow area between healthy and diseased tissue; white areas sometimes occur on leaf edges.

Distribution:

Throughout Louisiana associated with infected seeds.

Bacterial leaf blight



Scientific name:

Xanthomonas oryzae pv. *oryzae*

Common name:

Bacterial leaf blight

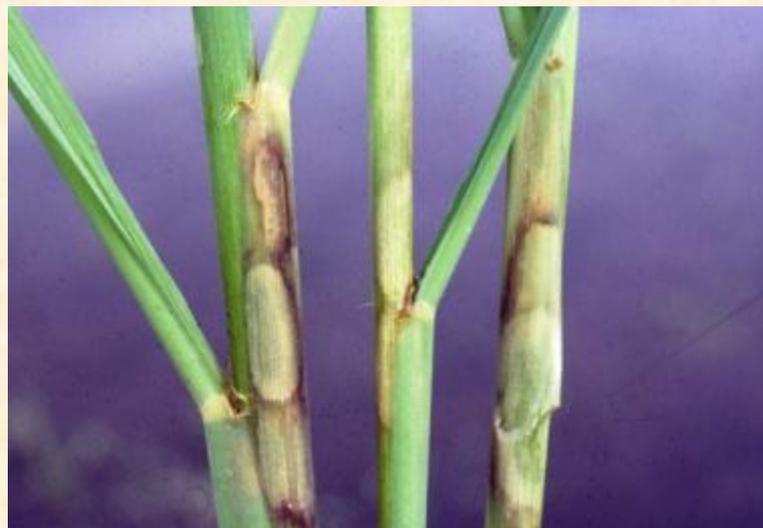
Description:

Lesions consist of elongated lesions near the leaf tip or margin and start as water soaked in appearance; lesions, several inches long, turn white to yellow and then gray due to saprophytic fungi.

Distribution:

Throughout Louisiana but very rare

Sheath blight



Scientific name:

Rhizoctonia solani

Common name:

Sheath blight

Description:

Water soaked gray-green lesion at water line during tillering or early jointing growth stages lesions becoming oval, white, or straw colored in the center with reddish-brown edges; lesions spreading up leaf sheaths and onto blades, lesions forming discrete lesions or bands on sheath some lesions darker or have wider border on more resistant varieties.

Distribution:

Throughout Louisiana in every field.

Stem rot



Scientific name:

Magnaporthe salvinii

Common name:

Stem rot

Description:

Black angular lesions on leaf sheath at or near water line on plants at tillering or early jointing growth stages; later sheath may dye and culms have dark-brown or black streaks, at maturity culms may collapse and small round black sclerotia form in dead tissues.

Distribution:

Throughout Louisiana in every field.

Sheath spot



Scientific name:

Rhizoctonia oryzae

Common name:

Sheath spot

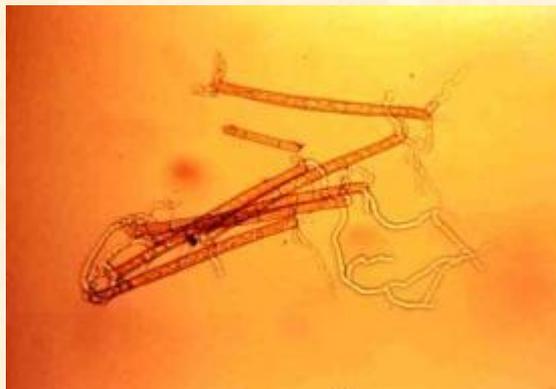
Description:

Lesions oval, pale green, turning cream color or white in the center with a broad dark reddish-brown margin; lesions remain separate not forming large continuous lesions.

Distribution:

Throughout Louisiana but fairly rare.

Crown sheath rot



Scientific name:

Gaeumannomyces graminis

Common name:

Crown sheath rot

Description:

Black to brown diffuse lesions on the sheath near the water line, perithecia necks protruding from the upper surface with a thick fungal mat between the leaf sheath and culm. Under severe conditions causing lodging.

Distribution:

Throughout Louisiana especially severe where excess nitrogen was applied.

Cercospora net blotch



Scientific name:

Cercospora oryzae

Common name:

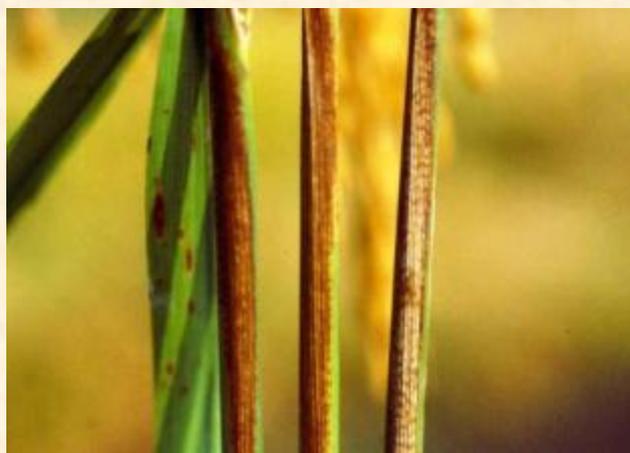
Cercospora net blotch or
Cercospora sheath rot

Description:

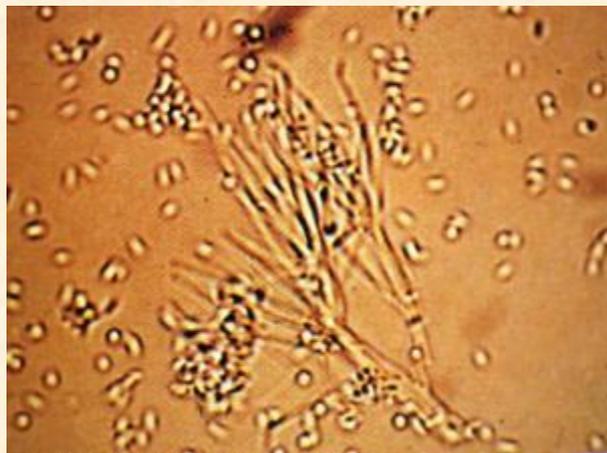
Reddish- or purple-brown,
netlike pattern on the sheath,

Distribution:

Throughout Louisiana.



Sheath rot



Scientific name:

Sarocladium oryzae

Common name:

Sheath rot

Description:

General reddish-brown discoloration of flag leaf sheath
Panicles emerging poorly; white
Frosting of conidia on inside of leaf sheath, florets discolored a uniform reddish-brown or dark brown.

Distribution:

Throughout Louisiana

Blast of flag leaf collar



Scientific name:

Pyricularia oryzae

Common name:

Collar blast

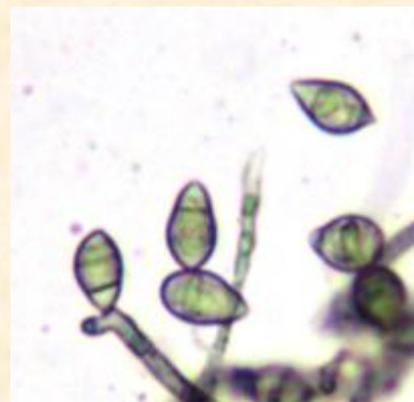
Description:

Collar of flag leaf brown, leaf blade detaches from sheath as lesion dries

Distribution:

Throughout Louisiana

Node blast



Scientific name:

Pyricularia oryzae

Common name:

Node blast

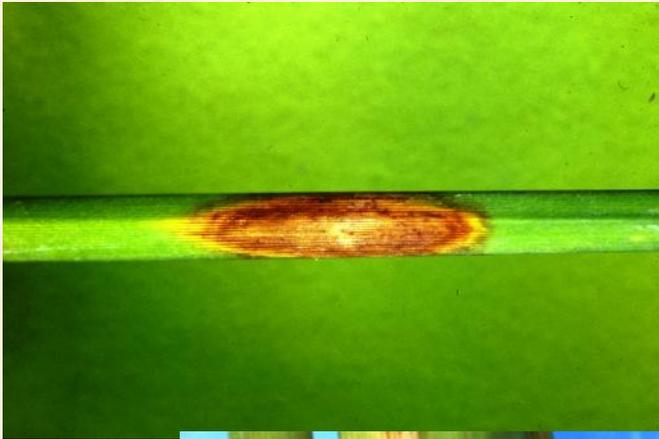
Description:

Culm node turns black or node shrivels and gray as plants approach maturity; nodes turn dark to blue gray with fungal conidia culms may break and plants lodge

Distribution:

Throughout Louisiana

Sheath blotch



Scientific name:
Pyrenochaeta oryzae

Common name:

Sheath blotch

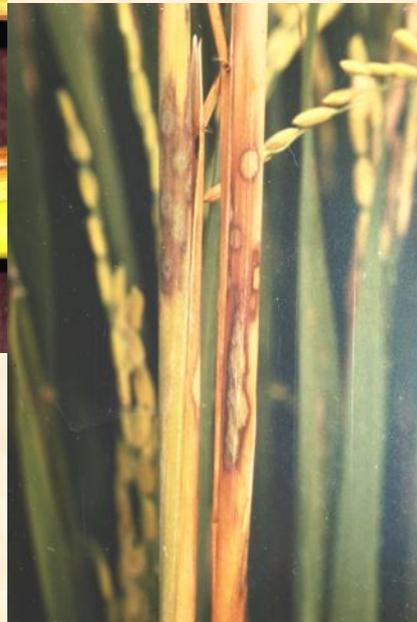
Description:

Oblong bark brown lesion on lower leaf sheath with dark brown border. Center becomes gray and black fruiting bodies of the fungus are imbedded in plant tissues

Distribution:

Throughout Louisiana but rare

Aggregate sheath spot



Scientific name:

Rhizoctonia oryzae-sativae

Common name:

Aggregate sheath spot

Description:

Oblong tan lesion on lower leaf sheath with dark brown border. Lesions are similar to sheath blight but smaller. Several lesions occur together.

Distribution:

Throughout Louisiana but rare

Rotten neck blast



Scientific name:

Pyricularia oryzae

Common name:

Rotten neck blast

Description:

Node and surrounding area at base of panicle discolored brown; stem of panicle shrivels and may break; node purplish or blue-gray with fungal spores; panicle white or gray, florets do not all fill and turn gray; panicle branches and stems of florets gray-brown.

Distribution:

Throughout Louisiana



Straighthead



Scientific name:

Arsenic induced, or
unknown physiological disorder

Common name:

Straighthead

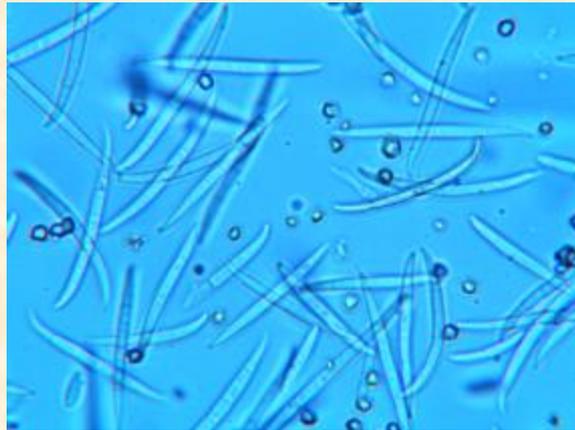
Description:

Panicles upright, not falling over
or slightly bent over because
of sterility. Hulls distorted,
beak-shaped. Plants may not
head at all

Distribution:

Throughout Louisiana.

Head blight



Scientific name:

Various fungi

Common name:

Head blight, scab

Description:

Internodal area above or below node turns light brown to tan-brown; kernels in lower panicle do not fill

Distribution:

Throughout Louisiana

Panicle blast



Scientific name:

Pyricularia oryzae

Common name:

Panicle blast

Description:

Single or several florets on a panicle branch turn light brown to Straw colored; floret stem with brown lesion; grain stops developing; florets turn gray

Distribution:

Throughout Louisiana

Bacterial panicle blight



Scientific name:

Burkholderia glumae

Common name:

Bacterial panicle blight

Description:

Single to all florets turn brown on lower part of grain, Grain stops developing and florets turn gray; at early stages panicle branch below grain remains green

Distribution:

Found throughout Louisiana
Especially during hot conditions

Downy mildew



Scientific name:

Sclerophthora macrospora

Common name:

Downy mildew

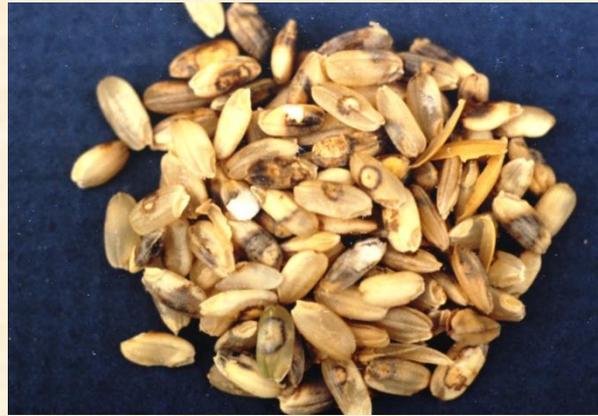
Description:

Panicles irregular, unable to emerge from leaf sheath, and becoming twisted; the panicle is small, normally remaining green longer than usual; no seed.

Distribution:

Throughout Louisiana but is extremely rare

Pecky Rice



Scientific name:

Various fungi

Common name:

Grain spotting or Pecky rice

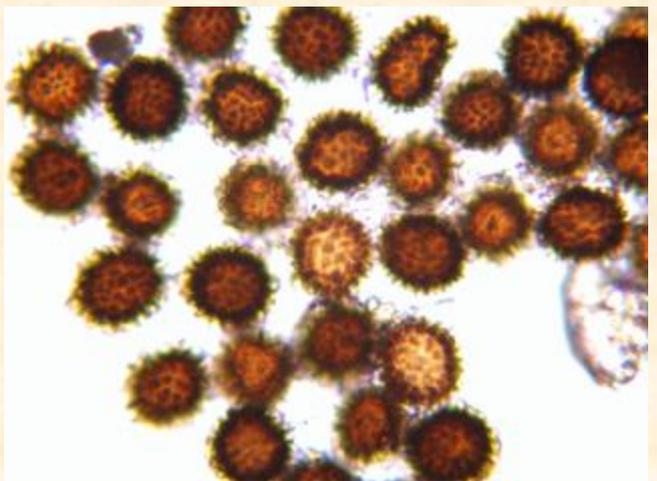
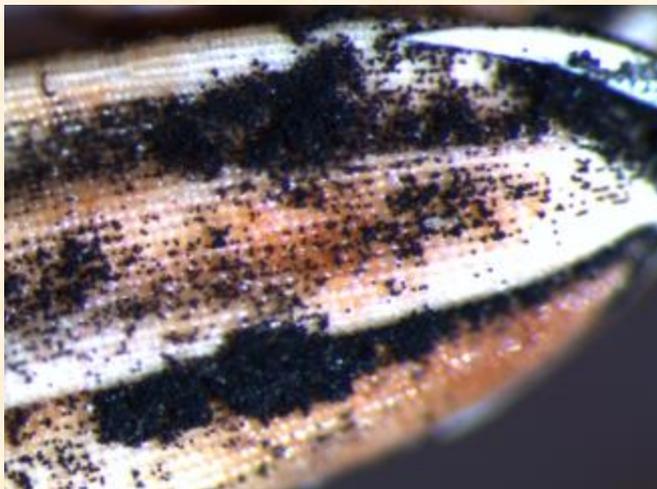
Description:

Single or several florets per panicle with brown to reddish-brown spots; grain discolored from feeding of stink bugs and fungal growth

Distribution:

Throughout Louisiana

Kernel smut



Scientific name:

Tilletia barclayana

Common name:

Kernel smut

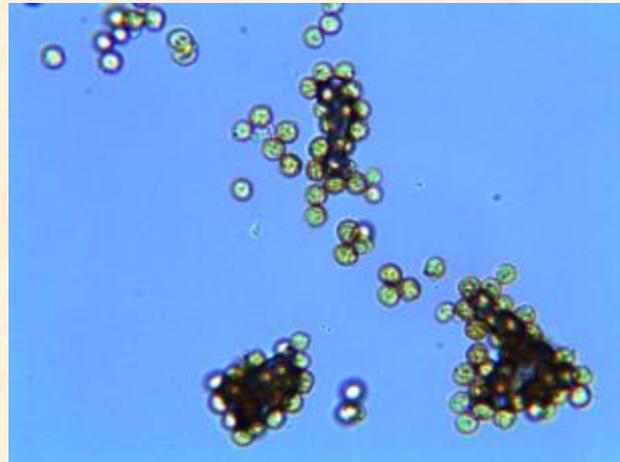
Description:

Maturing grain partially filled with powdery black spore mass, black spore mass on kernel surface and at seam between palea and lemma, spores rub off easily.

Distribution:

Throughout Louisiana

False smut



Scientific name:

Ustilaginoidea virens

Common name:

False smut

Description:

Large orange fruiting structure on one to several grains on panicle; when orange membrane ruptures and a mass of spores is exposed, spores mass turns dark green to black over time; grain is replaced by sclerotia.

Distribution:

Throughout Louisiana

Suggested additional sources of additional information

- Rice Varieties and Management Tips, LSU AgCenter Pub. 2270
- Rice Disease Fact Sheet, LSU AgCenter Pub. 3084
- Louisiana Rice Production Handbook, LSU AgCenter Pub. 2321
- www.lsuagcenter.com
- Contact your local cooperative extension agent

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
Louisiana Agricultural Experiment Station, David J. Boethel, Vice Chancellor and Director
Louisiana Cooperative Extension Service, Paul D. Coreil, Vice Chancellor and Director
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