Rice Water Mold and Seedling Disease Management

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Water mold and seedling blight Causal organisms

- Water-mold: *Achlya conspicua* Coker, *A. klebsiana* Pieters, *Fusarium* spp. *Pythium* spp., *P. dissotocum* Drechs., *P. spinosum* Sawada
- Seedling blight: *Cochliobolus miyabeanus* (Ito & Kuribayashi) Drechs. ex Dastur, *Curvularia* spp., F*usarium* spp., *Rhizoctonia solani* Kuhn, *Sclerotium rolfsii* Sacc. (teleomorph: *Athelia rolfsii* (Curzi) Tu & Kimbrough), and other pathogenic fungi.

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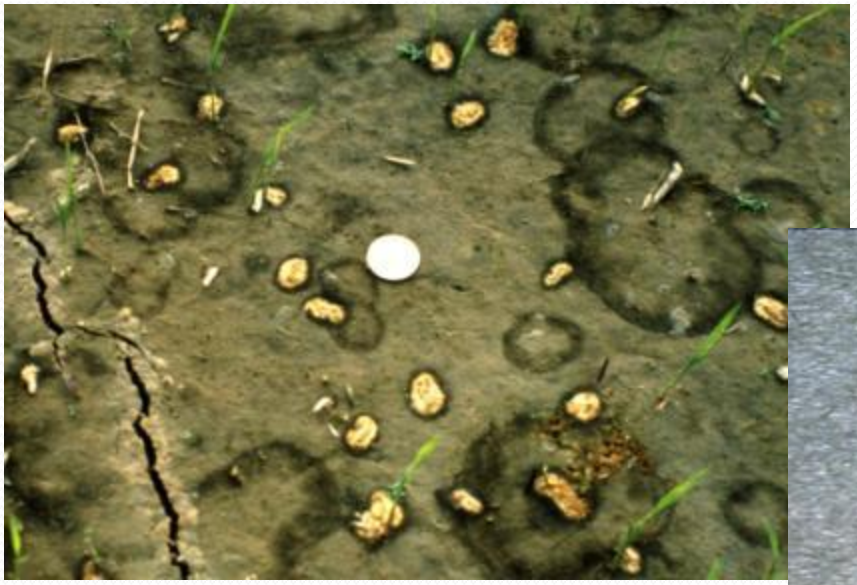
Water molds affect the rice seed endosperm and emerging embryo. Seedling blight affects the established seedling.



The fungi causing water molds are soil- and water borne. The fungi causing seedling disease are seed borne or soilborne. They are common in most rice fields. The seed-rot and water-mold diseases are most severe under flooded conditions when the environment is cold and wet. Water mold is more common in water seeded rice. Seedling blights are more common in drill-seeded or dry- broadcast seeded rice. They become active in cool moist conditions.

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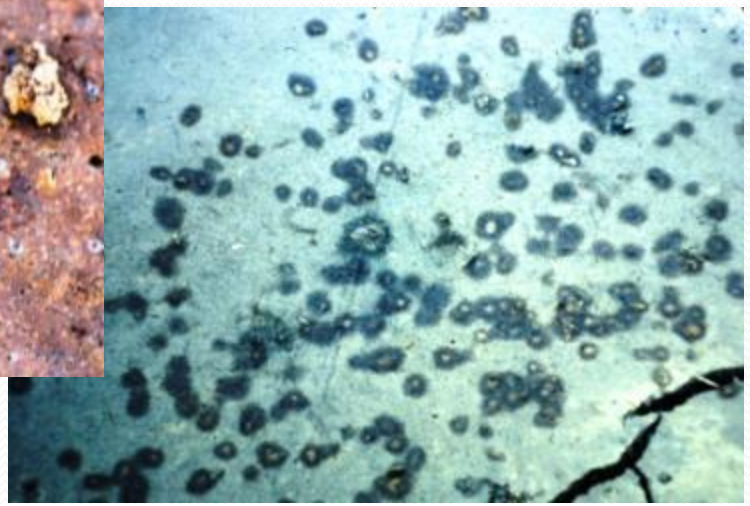
Water molds infect the endosperm and emerging rice seedling. *Achlya* usually attacks the endosperm and is characterized by course mycelium around the seed. *Pythium* typically attacks the embryo and is characterized by a wet area around the affected seed.



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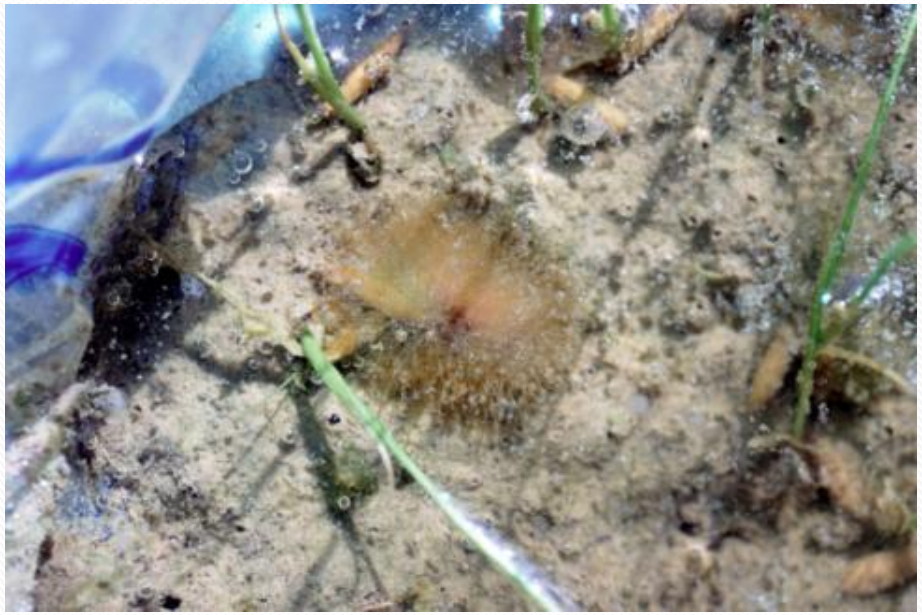
Typically these diseases are more severe early in the season when it is cold and late in the season when temperatures are high or when environmental conditions do not favor seedling growth. Once a rice plant establishes a leaf above the water, water molds usually do not kill the seedling. Once a seedling establishes several leaves, seedling blights will not kill them.



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Seed treatments are available to reduce disease severity and incidence. Typically seed treatments will increase stands by 20-30%

Rice Seed Treatment Fungicides

Common name	Trade name	Rate/100 lb seed
azoxystrobin	Dynasty	0.15-1.5 fl oz
carboxin + thiram	Vitavax 200 RTU Vitavax-Thiram	5-6.8 fl oz
fludioxonil	Maxim 4FS	0.04-0.08 fl oz
mancozeb	Dithane DF Dithane F 45 Manzate 200	2.1-4.3 oz 3.2-6.4 fl oz 2-4 oz
mefenoxam	Apron XL LS	0.16-0.64 fl oz
metalaxyl*	Allegiance FL	0.375-0.75 oz
thiram	Thiram 42S	3.3 fl oz
*Use in combination with another material to broaden spectrum of control.		

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Management Practices

- Seed should be treated with recommended fungicides.
- Draining the seeding flood and flushing as needed helps prevent water mold.
- The practice of pin-point flooding helps reduce water-mold damage.
- Seeding should not begin until the mean daily temperature reaches 65 degrees F.

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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\ricediseases
- 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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