

# Aggregate sheath in Rice

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## Abstract

The pathogenic organism of aggregate sheath spot of rice in California is *Rhizoctonia oryzae-sativae*, a binucleate *Rhizoctonia* sp. The disease's recent rise in occurrence and severity has coincided with a rise in producers' usage of semidwarf varieties. The disease has symptoms that are extremely similar to rice sheath blight caused by *R*. In the southern United States, there is a place called solani. The fungus isn't doing well. During the tillering stage, aggregate sheath spot lesions first occur on the lower leaf sheaths at the water line. Lesions range in size from round to elliptical in shape, with gray-green to straw-colored centres and noticeable brown edges. Additional margins frequently grow around the original lesion, resulting in a series of concentric bands. The lesion's centre has a strip of light-colored necrotic cells running down it.

**Keywords:** *Rhizoctonia*, progression

## Introduction

Aggregate sheath spot and stem rot have many similarities in their disease cycles. Sclerotia produced by *Rhizoctonia oryzae-sativae* are resistant to unfavourable conditions and allow the fungus to overwinter. These overwintering bodies float on the field water surface in the spring and early summer, causing initial infections at the water line. In contrast to the sclerotia of a septum near each hyphal branch and a slight constriction at the branch are diagnostic. *R. solani* is subdivided into anastomosis groups based on hyphal fusion between compatible strains [1]. Aggregate sheath spot of rice can also colonize the culm, where it may cause a culm rot, but this aspect of the disease is rare in California. Limiting carryover inoculum from one year to the next by removing or destroying crop residues is the most effective strategy to manage aggregate sheath spot. If monitoring reveals that leaf lesions are approaching the flag leaf sheath, treatments may be required. Controlling the environment, crop rotation, and the use of resistant varieties, it can decrease yield up to 50%, and reduce its quality [2]. Are all things that can be done. When it comes to treating aggregate sheath spot, monitoring is crucial. Examine tillers weekly after tillering for the

presence and progression of aggregate sheath spot lesions at several sites across the field. A therapy may be justified if lesions have begun to extend and are reaching the flag leaf sheath or the leaf sheath below the flag leaf. Treat lesions before they become a problem. Complete control of *Rhizoctonia* species is not possible, but the severity of the pathogen can be limited. Successful control depends on characteristics of the pathogen, host crops, and the environment [3].

For effective and cost-effective control of sheath blight and associated yield losses, an integrated management approach combining resistant or moderately resistant cultivars, sound cultural practices, and foliar fungicide application is desirable. Varietal vulnerability, field disease history, early disease scouting, and local meteorological circumstances that favour the disease are all factors to consider.

## Reference

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