

University Warns Of Disease Problems If California Rice Seed Imported

FAYETTEVILLE, ARK.

A shortage of medium grain rice seed in Arkansas has prompted some desperate dealers and growers to search for other seed sources out of state, including California.

The problem is that there is a quarantine on seed imports from California, according to Dr. Rick Cartwright, extension professor/plant pathologist with the University of Arkansas Division of Agriculture. The importation of California rice seed can result in heavy penalties and the condemnation and destruction of planted fields.

"The State Plant Board has a quarantine against importing seed from California because of bakanae disease," Cartwright said. "This is a seed-borne disease of rice common in Asia, and first noted in California in 1999. It is not known to be present in Arkansas or other southern rice states."

The disease is caused by a fungus that, once it becomes established in a new rice area, can't be eliminated, Cartwright said. The seed can't be effectively cleaned of infection, he said, so if seed is brought here from California, "We'll definitely have a new disease problem to deal with. We have enough problems to deal with now."

The disease builds up in seed and mainly causes problems for seed producers. It can cause a 20 percent loss in yield if not controlled, which is very difficult. Arkansas grows about 100,000 acres of medium grain rice, about 5 to 10 percent of the state's total rice acreage. Much of the harvested grain goes into cereal and other foods.

Why is there a shortage?

"We've had low production in the last few years. The market demand has gone up, and now we're going to have to catch up," Cartwright said. "Medium grain rice is an unstable market, and this situation happens every once in a while."

Cartwright said he was aware that the current demand and booking premiums for medium grains are an opportunity to make extra money, but importing and planting California medium grains will be of little or no benefit to Arkansas's rice industry and will represent high risk to it.

Cartwright asked county extension agents and others to advise farmers and dealers not to attempt to import rice seed into Arkansas or import California varieties from other states.

"We're not sure if Texas, Louisiana, Mississippi,

Florida and other states are preventing this risky seed movement at this time, although our State Plant Board is advising them to be aware of the situation," he said.

Importing a disease into Arkansas is not the only potential problem, according to Cartwright. The California varieties aren't adapted to Arkansas growing conditions.

"They're high yielding under California conditions, but they will get killed by rice blast, a major Arkansas rice disease," he said.

California medium grain varieties are extremely susceptible to the races of the blast fungus present in Arkansas, Cartwright noted. In the mid 90s, before the bakanae issue, some Arkansas growers attempted to grow the M 204 variety from California. Although it was not a generally good year for blast development, Cartwright recalled, farmers had to plow up most of these fields because they were heavily damaged by the blast fungus.

Cartwright said he monitored one such field on a clay soil with deep water – the best advice extension offered at the time to minimize blast – and pinhead-size lesions developed on leaves one day, and the leaves were dead seven days later.

The field received three applications of fungicide at the highest rates allowed, but the applications were ineffective.

"The bottom line is that these varieties aren't adapted here and by comparison, Francis, a U of A variety considered susceptible, looks highly resistant to blast when side by side with the California varieties," he said. "And, when you have this level of susceptibility, deep water, clay soils and Quadris (fungicide) won't save you. While it's true that California rice breeders have been working on blast resistance, it's only to the race they have and not to our races of the fungus, so any resistance they have won't work here."

Cartwright reminded farmers and seed dealers that California medium grain varieties are patented, which means there are "many rules that have to be followed when purchasing, planting, selling and record-keeping. Otherwise, you're subject to a lawsuit."

In addition, all seed entering the state must have been tested for the Liberty Link trait and the results provided to the Plant Board. If not tested, fields can be condemned and destroyed and large fines levied. Δ