

Scientists develop disease-resistant rice

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Farmers' worries during rainy season may soon be reduced with the development of a line that is resistant against bacterial leaf blight (BLB).



BLB is one of the most destructive rice diseases occurring during continuous heavy rains. Developed by the Philippine Rice Research Institute (PhilRice), Line 27 withstood attacks of major BLB races found in the country.

PhilRice science research specialist Rona-lyn Miranda said Line 27 has broad-spectrum resistance to diseases based on tests conducted, which used 12 strains representing 10 BLB races. A cross combination of NSIC Rc 120 – a tungro-resistant variety, and AR 32-19-3-4, a BLB resistant elite line, was found to have four resistant genes.

“Line 27 will be further bred as a variety for farmers to plant. The variety will be suited in Northern and Eastern Samar where BLB incidences are prevalent last year. The variety may be expected in six to 10 years,” Miranda said.

The line is also being used in developing new hybrid varieties, which are known to be highly susceptible to BLB and tungro, and golden rice, a variety being bred containing beta carotene.

“With these new results, we are hopeful to improve or develop a BLB and tungroresistant parentals, which can be useful in the development of high-yielding varieties,” she said.

Reducing farmers' yield by up to 60 percent under severe infestation, BLB causes wilting of seedlings and yellowing and drying of leaves. The disease hinders the growth of grains by affecting the crop's food production process.

BLB can also easily attack susceptible rice varieties applied with high amount of nitrogen fertilizer.