



Field Trial of a New PhilRice Breeding Line against Three Public Hybrids in Magsaysay, Davao del Sur, Philippines

Juan P. Agudera Jr.

Southern Philippines Agribusiness Marine and Aquatic School of Technology (SPAMAST), Philippines

Correspondence

Agriculture Department,
Southern Philippines Agribusiness
Marine and Aquatic School of
Technology (SPAMAST),
Matti, Digos City 8002,
Davao del Sur, Philippines

E drone7183@yahoo.com

Keywords

hybrid rice, PhilRice breeding line,
rice

Abstract

The average yield per hectare of rice in the Philippines is still low at 3 to 4 tons, which is not enough to feed its growing population. Hence, the country now resorts to rice importation, which is not a sustainable solution to the problem. In the quest for high-yielding lines/varieties, a field trial on the yield performance of Philippine Rice Research Institute's (PhilRice) breeding line PR40846-9-2-2 (highest yielder among the 64 lines versus 60 approved varieties tested in first cropping of 2013) versus the three known high-yielding public hybrid varieties, namely, PSBRc72H (Mestiso 1), NSICRc 202H (Metiso 19), and NSICRc 204H (Mestiso 20), was conducted in Magsaysay, Davao del Sur, Philippines, from November 2013 to October 2014 to compare their agronomic characteristics, yield, and yield components. The study was laid out in randomized complete block design replicated three times in 4-x-5-m plot spaced 1 m apart. Results showed that the breeding line outyielded (10,871.23 kg/ha) the three high-yielding public hybrids. The yield advantage was due to its higher number of filled grains per panicle (172.27) and more productive tillers per hill (20.67), which are two parameters that contribute to yield. It has comparable agronomic characteristics to the three hybrid varieties such as plant height and number of unfilled grains per panicle. This implies that the PhilRice breeding program successfully improved the yield of upcoming rice varieties in the Philippines. A package of technology should be developed to determine its maximum yield potential.