

The Grain Quality of Newly Releasing Japonica Rice Lines

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Abstract

From the first crop of 1997 to the second crop of 1999, a total of 39 newly nominated japonica rice lines which were selected from Taitung District Agricultural Improvement Station (DAIS), were collected to test their grain quality. The results showed that there were differences in milling quality among those new lines. In each crop, there were some new lines better than TNG67 (ck) in milling quality. Most of new lines were larger than TNG67 (ck) in head rice rate. Most of those lines belonged to short grain size and bold shape, and only two lines belonged to short-medium grain size.

The coefficients of variation of white center, white back and white belly were larger than the rest characters, and those showed we have more selection chance in white center, white back and white belly. In each crop, there were some new lines better than TNG67 (ck) in grain appearance.

Most of new lines belonged to low gelatinization temperature, low amylose content, low protein content and soft gel consistency, and only one line which protein content was over 7%, only three lines belonged to medium gel consistency.

Key words: japonica rice, grain quality.

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