Registration of “Kocamaninci” Rice (Oryza sativa L.) Variety

“Kocamaninci” is a japonica type semi-dwarf rice (Oryza sativa L.) variety developed by Black Sea Agricultural Research Institute. It was approved to release in April 2020. The variety was derived from cross breeding method and their parental lines are Kizilirmak × KA474. Crossing was made in 2007, initiated as a F₁₃ bulk selection until 2010, sustained as a F₄₇ pedigree selection of a single panicle row between 2011 and 2014. Preliminary yield trial, yield trial, regional advanced yield trials conducted from 2015 to 2017. Variety registration yield trials conducted in 5 regions such as Samsun, Bafra, Edirne, İpsala, Gönen from 2018 to 2019. The variety had an 18% yield advantage over the standard cultivars such as Osmancik-97, Kiziltan, Edirne and Cammeo (Anonymous 2020). The variety has a moderate resistance to both leaf and neck blast, which are caused by the fungal pathogen Magnaporthe oryzae.

The variety is a short statured conventional rice cultivar highly resistant to lodging. The variety has an upright plant sight, additionally vertical panicle and leaf aspect. It has averaged 80-85 cm plant height in yield trials across Black Sea region as well as in Thrace and Marmara regions (Figure 1). The average flowering days were 83-85 days and maturity days were 130-135 days (Unan et al. 2020).

The variety has demonstrated good yield potential in head-to-head comparisons with the standard checks. The average grain yield potential is 8-10 t ha⁻¹. Average milling rate were 65%. The head rice milling rate of the variety was 5% higher than other varieties (Anonymous 2018).

The variety had featured that length, width, length/width ratio and kernel 1000 seed weight of milled whole kernels as 6.1-6.2 mm, 2.8-2.9 mm, 2.1-2.2 and 22-23 g, respectively. Milled rice has an ideal transparency structure.

Turkish Plant Variety Protection has been applied for the variety. Breeder and foundation seed of the variety will be produced and maintained by Black Sea Agricultural Research Institute, 55300, Tekkeköy, Samsun, Turkey. Limited quantities of seed are available on request to the corresponding author for research purposes.

In conclusion, the variety has excellent features such as semi-dwarf plant length, resistant lodging, good yield potential and especially stable maximum milling rate.

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Figure 1. Field appearance, grain and milled whole rice of Kocamaninci rice variety. (Original)

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References and Notes

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