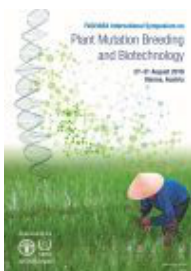


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A NEW MUTANT CULTIVAR OF BARLEY (*HORDEUM VULGARE* L.) REGISTERED IN TURKEY

“Onder”, a two-rowed mutants feed barley cultivar, was developed by the Dicle University Faculty of Agriculture, Department of Field Crops and it has been registered in 2016 by the Ministry of Food, Agriculture and Livestock in Turkey. ⁶⁰Co gamma ray treatment at the dose of 150 Gy was applied to seeds of Sahin 91 two-rowed barley cultivar to induce mutation and “Onder” was derived by mutation breeding from “Sahin 91”. The superiority of “Onder” for some traits in respect to Sahin 91 are 12.8% higher or lower grain yield, 10.1% higher or lower test weight, 6% increased grain protein ratio, and 189% increase over the 2.2 mm sieve grain ratio. A significant lodging tolerance has also been obtained in Onder, which is usually, a major problem in the barley production especially in high input area. Grain weight decreased in “Onder” while plant height increased. “Sahin 91” was normal flowering time, while Onder flowered 13 days earlier than Sahin 91. Seeds and spikes morphology of Onder were also different from Sahin 91. The genotypic differences were determined between both genotype by SSR method. Due to high genotypic and phenotypic differences induced by mutation Onder has proved the power of mutation breeding and it is expected that Onder will take a significant share in Turkey barley farming.

Country or International Organization

Turkey

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