

Registration of ‘Flathead’ hard red winter wheat

Abstract

‘Flathead’ (Reg. no. CV-1164, PI 693237) hard red winter (HRW) wheat (*Triticum aestivum* L.) was developed and released by the Montana Agricultural Experiment Station in 2019. Flathead was derived from a composite of two very closely related single crosses of the predominant cultivar ‘Yellowstone’ to stripe rust resistant source PI 640431, a hard white spring wheat backcross derivative of WA007900 that carries stripe rust all-stage resistance genes *Yr5* and *Yr15*. Flathead was developed using a modified bulk breeding method and selected as an F_{5:6} head row after phenotypic selection for stripe rust resistance at Kalispell, MT. Flathead was tested under the experimental number MT1564 in Montana yield trials from 2015 to 2019. Flathead is a high-yielding HRW wheat cultivar with early maturity, short stature, medium grain protein concentration, excellent milling and baking quality, and a high level of all-stage resistance to predominant races of stripe rust. Flathead was released for its early maturity, improved stripe rust resistance, and improved grain yield relative to other Montana-adapted early heading cultivars.

Abbreviations

HRW

hard red winter

IT

infection type

LY

location-years

NRPN

Northern Regional Performance Nursery.

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