Registration of ‘Rawson’ Barley

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‘Rawson’ two-rowed spring barley (Hordeum vulgare L.) (Reg. No. CV-333, PI 643149) was developed by the North Dakota Agricultural Experiment Station (NDAES) in cooperation with USDA-ARS and released in July 2005. Rawson was named after the town Rawson, located in McKenzie County in northwestern North Dakota.

Rawson was derived from the cross ND15403-3/ND15368/ND16453, which was made in spring 1998 in the greenhouse. Rawson was tested as ND19119-2 and was developed using a modified-pedigree breeding method. ND19119-2 was derived from a single plant selection made in the F6 generation. ND16453 (ND13162-2/’Logan’ sib//’Mejorana’) is a large seeded selection with moderate resistance to net blotch (caused by Pyrenophora teres Drechs.); spot blotch [caused by Bipolaris sorokiniana (Sacc.) Shoemaker]; barley leaf rust (caused by Puccinia hordei Otth); and septoria speckled leaf blotch (caused by Septoria passerinii Sacc.). Mejorana was tested previously in the USA as the breeding line PC 84 (PI 584764) from the International Center for Agricultural Research in the Dry Areas (ICARDA)/International Maize and Wheat Improvement Center (CIMMYT) barley breeding program in Mexico and is the likely source of septoria speckled leaf blotch resistance in Rawson. ND15403-3 (Logan sib/ND13297) is an early maturing, low-protein selection with resistance to net and spot blotch. ND15368 is a net blotch resistant line from ND13083/ND13100. ND13297 is from the cross ‘Harrington’//ND4758/M37/3/’Bowman’/4/ND5835/S/ND7819/’Bowman’/6/AC ‘Oxbow’ (Harvey and Rossnagel, 1984; Franckowiak et al., 1985; Government of Canada, 2006). ND13162-2 is from the cross ND7015//ND7534/’Bowman’/3/ND8763//ND19119-2 and was developed using a modified-pedigree breeding method. ND19119-2 was derived from a single plant selection made in the F6 generation. ND16453 (ND13162-2/’Logan’ sib//’Mejorana’) is a large seeded selection with moderate resistance to net blotch (caused by Pyrenophora teres Drechs.); spot blotch [caused by Bipolaris sorokiniana (Sacc.) Shoemaker]; barley leaf rust (caused by Puccinia hordei Otth); and septoria speckled leaf blotch (caused by Septoria passerinii Sacc.). Mejorana was tested previously in the USA as the breeding line PC 84 (PI 584764) from the International Center for Agricultural Research in the Dry Areas (ICARDA)/International Maize and Wheat Improvement Center (CIMMYT) barley breeding program in Mexico and is the likely source of septoria speckled leaf blotch resistance in Rawson. ND15403-3 (Logan sib/ND13297) is an early maturing, low-protein selection with resistance to net and spot blotch. ND15368 is a net blotch resistant line from ND13083/ND13100. ND13297 is from the cross ‘Harrington’//ND4758/M37/3/’Bowman’/4/ND5835/S/ND7819/’Bowman’/6/AC ‘Oxbow’ (Harvey and Rossnagel, 1984; Franckowiak et al., 1985; Government of Canada, 2006). ND13162-2 is from the cross ND7015//ND7534/’Bowman’/3/ND8763//ND19119-2 and was developed using a modified-pedigree breeding method. ND19119-2 was derived from a single plant selection made in the F6 generation. ND16453 (ND13162-2/’Logan’ sib//’Mejorana’) is a large seeded selection with moderate resistance to net blotch (caused by Pyrenophora teres Drechs.); spot blotch [caused by Bipolaris sorokiniana (Sacc.) Shoemaker]; barley leaf rust (caused by Puccinia hordei Otth); and septoria speckled leaf blotch (caused by Septoria passerinii Sacc.). Mejorana was tested previously in the USA as the breeding line PC 84 (PI 584764) from the International Center for Agricultural Research in the Dry Areas (ICARDA)/International Maize and Wheat Improvement Center (CIMMYT) barley breeding program in Mexico and is the likely source of septoria speckled leaf blotch resistance in Rawson. ND15403-3 (Logan sib/ND13297) is an early maturing, low-protein selection with resistance to net and spot blotch. ND15368 is a net blotch resistant line from ND13083/ND13100. ND13297 is from the cross ‘Harrington’//ND4758/M37/3/’Bowman’/4/ND5835/S/ND7819/’Bowman’/6/AC ‘Oxbow’ (Harvey and Rossnagel, 1984; Franckowiak et al., 1985; Government of Canada, 2006).