

WOLVERINE™ HERBICIDE – OVERVIEW OF PERFORMANCE IN NORTHERN PLAINS CEREALS. Kevin B. Thorsness*, Steven R. King, Dean W. Maruska, Mary D. Paulsgrove, Bradley E. Ruden, Michael C. Smith, George S. Simkins, and Mark A. Wrucke, Technical Service and Field Development Representatives, Product Development Manager, and Market Support Manager, Bayer CropScience, Research Triangle Park, NC 27709.

Wolverine™ is a new broad spectrum postemergence grass and broadleaf herbicide that was introduced in 2009 by Bayer CropScience. Wolverine is registered for use in spring wheat, durum, winter wheat, and barley. Wolverine is a mixture of pyrasulfotole, bromoxynil, fenoxaprop, and the highly effective cereal herbicide safener, mefenpyr-diethyl. The inclusion of two different broadleaf modes of action, an HPPD and PSII inhibitor along with an ACC'ase mode of action for grass control, results in a unique broad spectrum product with resistance management characteristics for broadleaf weeds. Wolverine provides consistent broad spectrum grass and broadleaf weed control with excellent crop tolerance. Rapid degradation of Wolverine in the soil provides an excellent crop rotation profile allowing re-cropping to most major crops grown in the northern cereal production area.

All of the components of Wolverine are formulated together as an emulsifiable concentrate for simplicity, eliminating the need for tank-mixing other herbicides. Apply Wolverine at 1.7 pt/ac to wheat from emergence up to 60 days prior to harvest in North Dakota, South Dakota, Minnesota, and Montana. In barley Wolverine can be applied from emergence up to the 5-leaf stage of growth. For optimum yield and control of grass and broadleaf weeds, apply Wolverine when grasses are in the 1-leaf to 2-tiller stage of growth and broadleaf weeds are between the 1 - 6 leaf stage of growth. Wolverine can be tank mixed with selected fungicides and insecticides.

The final formulation was tested at more than 63 locations under varying conditions in the northern cereal production area of ND, MN, MT, and SD. Wolverine controlled the key grass and broadleaf weeds such as green and yellow foxtails, millet sp., barnyardgrass, wild oat, kochia, pigweed sp., wild buckwheat, common lambsquarters, mustard sp., Russian thistle, field pennycress, prickly lettuce, common waterhemp, ragweed sp., and nightshade sp. Wolverine also controls sulfonylurea resistant weeds such as kochia, prickly lettuce and Russian thistle. Crop tolerance with Wolverine has been excellent when tested on commonly grown varieties of spring wheat, durum wheat, and barley.

Wolverine provided excellent control of grass and broadleaf weeds in both research trials and commercial production fields in 2009. Wolverine was commercially applied on 1.08 million acres of cereals in North Dakota, South Dakota, Minnesota, and Montana in 2009. Applications of Wolverine were successfully made through all types of commercial application equipment. Overall weed control and crop tolerance with Wolverine was excellent in spite of being applied during some challenging environmental conditions. Grower satisfaction with Wolverine performance coupled with its convenience has resulted in a high level of re-use intentions for 2010. The convenient formulation that provides broad spectrum one pass weed control, combined with crop safety and a favorable crop rotation profile makes Wolverine a valuable tool for wheat and barley producers.