

## MANAGEMENT OF DIFFICULT TO CONTROL GRASS SPECIES WITH MESOSULFURON-METHYL PLUS PROPOXYCARBAZONE IN WHEAT GROWN IN THE NORTHERN PLAINS.

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Rimfire Max is a postemergence herbicide with the ability to control many problematic grass and broadleaf weeds in winter, spring, and durum wheat. Rimfire Max is a new formulation of Rimfire herbicide that contains the ALS-inhibiting compounds mesosulfuron-methyl and propoxycarbazone-sodium and the safener, mefenpyr-diethyl. Rimfire Max contains an increased level of mesosulfuron-methyl and twice the amount of safener as compared to Rimfire. The new formulation effectively controls a greater number of grass weeds with more consistency than Rimfire while increasing crop safety.

Rimfire Max has a wide application window and can be applied to wheat from 1-leaf up to flag leaf emergence. It is formulated as a 6.67% WDG and must be applied with one of several effective surfactant systems. Surfactant options include 1.75 l/ha methylated seed oil, 1% v/v basic blend adjuvant, or NIS plus UAN at 0.5% v/v and 4.7 l/ha, respectively. The application rate of Rimfire Max is 13.97 g ai/ha. Rimfire Max has excellent crop rotation flexibility and wheat and millet can be planted 4 months following application. Alfalfa, barley, canola, corn, dry beans, flax, lentils, oats, peas, soybeans, safflower, sugarbeets, and sunflower can be planted 10 months after application.

Rimfire Max effectively controls both ACC-ase resistant and susceptible wild oats. It also controls yellow and green foxtail, barnyardgrass, Persian darnel, Japanese brome, true cheat, and foxtail barley when applied prior to tillering. Partial control of downy brome and quackgrass can also be successfully achieved with an application of Rimfire Max. Broadleaf weed control includes many mustard species, volunteer canola, wild radish and wild beet. Rimfire Max can be tankmixed with many broadleaf herbicides, such as Huskie, to provide broad spectrum weed control in cereals without causing a reduction in grass control. Section 3 registration for Rimfire Max was received from the EPA on 8/28/2009 and it will be available for use in winter, spring, and durum wheat in the spring of 2010.