

Metribuzin tolerance of wheat varieties

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Summary Metribuzin 75 g a.i. ha⁻¹ is registered on all wheat varieties as an early post-emergent for control of toad rush (*Juncus bufonius* L.). The objective of the study was to investigate the tolerance of new or commonly grown wheat varieties in Western Australia to the higher rates of metribuzin for effective management of weeds like brome grass (*Bromus* spp.), barley grass (*Hordeum* spp.), ryegrass (*Lolium rigidum* Guadin) and wild radish (*Raphanus raphanistrum* L.).

Six field trials under weed free conditions were conducted from 2013 to 2015, three on sandy loam to loam soils at Mullewa and other three on a loamy sand to sandy loam soils at Katanning. The trials were laid out in a criss-cross design having six wheat varieties at each site and five rates of metribuzin (0, 75, 150, 300 and 450 g a.i. ha⁻¹) with three replications. Metribuzin

at the different rates was applied as pre-emergent during 2013 and post-emergent during 2014 and 2015 at both the sites.

Metribuzin 75 g a.i. ha⁻¹ was tolerated well by all the wheat varieties with a good crop safety margin. Metribuzin 150 g a.i. ha⁻¹ was also tolerated well by all the wheat varieties with a good crop safety margin except Bonnie Rock at Mullewa during 2013 and Mace at Katanning during 2014 and 2015 registered a low crop safety margin. However, under shallow seeding condition at Mullewa during 2015, the wheat varieties registered significant yield loss with rates above 75 g a.i. ha⁻¹.

Keywords Wheat, metribuzin, tolerance, grain yield, weeds.