

SELECTIVITY AND EFFICACY OF THIFENSULFURON-METHYL WITH ADJUVANT AND WITHOUT IN CONTROL OF BROADLEAF WEEDS IN WINTER WHEAT

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Abstract

The research was conducted in 2020-2021, in 3 different locations (Constanța, Călărași and Teleorman) and aimed to evaluate the biological activity of the herbicide Thifensulfuron-methyl 75% WG with adjuvant and without in control of broadleaf weeds in winter wheat. The experiments were placed in randomized blocks, in 4 repetitions with a plot area of 100 m². The floristic composition of the winter wheat fields studied has been diversified, being present: *Amaranthus retroflexus*, *Capsella bursa – pastoris*, *Centaurea cyanus*, *Chenopodium album*, *Erigeron annuus*, *Fumaria officinalis*, *Galium aparine*, *Lamium* spp., *Papaver rhoeas*, *Polygonum convolvulus*, *Sinapis arvensis*, *Stellaria media*, *Veronica* spp., *Viola arvensis* etc. Herbicides were applied in post-emergence when weeds were in the early stages of growth and development. The herbicide Thifensulfuron-methyl 75% WG with adjuvant and without was applied at the doses of 20, 30 and 40 g/ha. The adjuvant (Trend 90 EC) was applied at 250 ml/ha. The assessments made at 10, 20 and 30 days after treatments focused the density of weeds, the percentage of soil cover, selectivity and the effectiveness compared to the untreated control. The results obtained showed that the efficacy depends on the dose applied, the type of weeds and their density on square meter. The Thifensulfuron-methyl 75% WG ensured a good efficacy in controlling of broadleaf weeds in winter wheat, the best results being obtained at the higher dose and when it was applied together with Trend 90 EC. Some weed species were insufficiently controlled at the dose of 20 g/ha: shepherd's purse, cleavers, blackbindweed, lamb's quarters etc.

Key words: wheat, control weeds, herbicides, *Triticum*