

## عنوان مقاله:

Chemical weed management programs for cycloxydim-tolerant maize in Iran

## محل انتشار:

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## خلاصه مقاله:

In order to introduce new chemical weed management program in maize weed control in Iran, a study was conducted during ۲۰۱۴ and ۲۰۱۵. Experiment were carried out in a randomized complete block design with three replications. ۱۵ treatments of the common maize herbicides, including nicosulfuron, foramsulfuron, eradicane and ۲,۴-D + MCPA were applied in their recommended doses, moreover the treatments related to cycloxydim with dicamba + tritosulfuron were used with different doses and in different times along with two control treatments (weedy and weed-free). Treatments contained ۷۵-۱۵۰ g a.i. ha<sup>-1</sup> of cycloxydim, showed similar results with the common treatments including nicosulfuron, foramsulfuron, eradicane and ۲,۴-D + MCPA. However, treatments with high doses of cycloxydim, had a significant reduction in weed density and weed biomass. There were no significant differences between the effects of treatments on maize grain yield and biomass. Despite the acceptable weed control of the combined treatment of cycloxydim with dicamba plus tritosulfuron, maize canopy could overcome weed growth. Based on the results and by considering cycloxydim efficacy in controlling perennial grassy weeds in maize plantation, this chemical is a suitable option during different growing stages of weeds and maize. Finally, the application of ۲۰۰-۳۰۰ g a.i. ha<sup>-1</sup> of cycloxydim combined with dicamba plus tritosulfuron was the best option from an economic and environmental safety points of view.

## کلمات کلیدی:

maize, cycloxydim, herbicide tolerance, herbicide resistance

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