

**Effects of herbicide Chevalier on wheat weeds and effect of on residues on  
successive crops .**

**K. W. Ibade\***

**Saleh H. Samir\*\***

**Showkat A. Habib\***

**\*College of Agriculture / Al - Anbar University**

**\*\* College of Agriculture / Baghdad University**

**ABSTRACT**

Two field trials and other glasshouses pot experiments were carried out at the fields of the Agricultural College / Abu - Ghraib during the period 2004 – 2005 to investigate the residual effects of herbicide Chevalier15WG ( Mesosulfuron – methyl + Iodosulfuron – methyl sodium ) , which is used to control weeds of wheat (*Triticum aestivum*) on the successive crops ( corn , sorghum ) . The subsequent effect of this herbicide on seed yield and yield components was also studied .

Results revealed that Chevalier was highly effective in controlling both types of weeds in wheat data obtained after 30 and 60 days of application showed that broadleaf weeds density were reduced to 8 and 7 plants / m<sup>2</sup> , respectively , compared to 84 and 135 plants / m<sup>2</sup> in not treated weedy plots . Densities of grassy weeds were 3 and 2 plants / m<sup>2</sup> compared to 55 and 63 plants / m<sup>2</sup> in control plot during the same periods , respectively . Consequently , wheat yield and yield components were improved spikes number per m<sup>2</sup> , number of seeds per spike and weight of 1000 seeds were 309 spikes / m<sup>2</sup> , 51.7 seeds / spike and 46.9 gm /

1000 seeds , respectively , in the Chevalier treated plots compared to 200.2 spikes / m<sup>2</sup> , 43.5 seed / spike and 42.3 gm / 1000 seeds in the nontreated weedy plots , respectively . increase in wheat yield components consequently resulted in significant increase in the yield of wheat seeds 43 % when compared with the nontreated plots . there were no significant differences regarding characters included in this study between Chevalier and Lintur and Granstar which used as control .

Results of bioassay tests revealed that the herbicide Chevalier was dissipated in 5 months of application when corn and sorghum were –soil samples after 3 taken after various periods after application and used as indicator crops for the herbicide residues. Plant growth characters such as plant height , fresh plant weight , root length and weight were considered in determining Chevalier residual effect . No significant residual effects of the herbicide were detected on growth and yield of the crops ( corn , sorghum ) planted directly after wheat .