

农业生态与环境科学

长残效磺酰脲类除草剂土壤残留危害的综合治理技术研究*

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摘要 针对长残效磺酰脲类除草剂的特点, 从降低除草剂用量、加速除草剂降解、敏感作物解毒等方面进行了研究, 以控制该类除草剂残留对后茬作物的危害。降低长残效除草剂用量的方法有: 添加增效剂, 在本试验中采用 SDP, 在甲磺隆低剂量情况下可以明显提高除草效果达 20% 以上; 与其它除草剂品种混配, 如二甲四氯、苯磺隆、噻磺隆、异丙隆等, 以提高药效, 降低用量。适当的农作措施, 如增加小麦密度、使用分蘖力强的品种, 可以有效控制晚春杂草的发生。加速除草剂降解的措施有小麦秋季用药, 不仅可以有效提高药效, 降低用量, 还可以增加除草剂的降解时间; 增加浇水次数或晚浇水, 可以加速除草剂的淋溶。使用保护剂萘啶拌种和赤霉素、芸苔素内酯等植物调节剂苗后缓解药害等措施, 可以减轻药害。

关键词 [长残效磺酰脲类除草剂](#) [残留](#) [综合治理](#) [甲磺隆](#)

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Integrated Control on Residual Damage of Persistent Sulfonylureas in Soil

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Abstract

To control the residual damage of persistent Sulfonylureas to summer crops, this paper med at the speciality of persistent Sulfonylureas, researched the control technology by reducing herbicide dosage, accelerating decomposition, debasing crop sensitivity. Adding adjuvants could reduce the dosage, SDP 15g/hm², metsulfuron-methyl 7.5g/hm², the weed control effect on fresh weight is 93.60%, increased 20% than none adjuvant; mixing with other herbicides, such as MCPA, tribenuron, thiameturon-methyl, isoprovuron, etc. Proper agriculture measure, include proper planting density of wheat, using the variety with strong tillering ability, can control the weeds in the field and late spring emergence weeds effectively. The measure of accelerating decomposition of the herbicide, includes using the herbicides in early period, 1~3 leavers of winter wheat, could improve the control effect and reduce dosage, also lengthen the degradation time of the herbicide; increase times of irrigation or irrigating late, can accelerate the drenching and dissolving of the herbicides in the soil; using NA to dress seed and gibberellin or brassinolide after shooting could debase the damage.

Key words [persistent sulfonylureas](#) [residual damage](#) [integrated control](#) [metsulfuron-methyl](#)

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