




Redroot pigweed in soybean

Amaranthus retroflexus

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Leaves and fringe of pigweed in productive period (Photo by Xiaolong)</p>	<ul style="list-style-type: none"> Use soybean seeds without weed seeds by griddling, or buy from authorized agri-shop Clear field edges from weeds Remove and carry any plant residues far away from field, or deep plough, or bury or burn after soybean harvest. Bury the weed seeds into the deep layer of soil through deep tillage before soybean seeding (more than 5 cm). Seeds will however not die and may emerge next season after tillage. Use preventive herbicide if small pigweed plants are found before seeding (see yellow column) 	<ul style="list-style-type: none"> Check weed density records from last year after harvest. Check weeds for pigweed before planting soybean. Look for presence of small seedlings of pigweed (the third picture 3-5 leaf stage) during early stage of soybean. If 5-10 pigweed seedlings are found, hoe or cover them with wheat straw locally. Action (chemicals) may be considered if density of small weeds reaches 30-40 per m². For later infestation, the height of most weeds will be equal to soybean, or even cover the soybean plants. Then control is too late. 	<ul style="list-style-type: none"> Pull out weeds by hand or hoe at early stage of weed (see monitoring 3rd point) . Cover weeds through mulching with wheat straw (thickness: 3-5cm, no sunshine for weeds) between soybean rows. 	<ul style="list-style-type: none"> All of the herbicide should be used according to label direction. Never spray against wind direction. Herbicides are applied one time per growing-season. When using a pesticide or botanical, always wear protective clothing and follow the instructions on the product label. Always consult recent list of registered pesticides http://www.chinapesticide.gov.cn/ 	<ul style="list-style-type: none"> WHO toxicity class III (slightly hazardous); No spray under windy conditions. Restricted re-entry interval (REI) 1 day. Works only when getting into contact with weeds. Sprays on soil do not help.
 <p>Pigweed competing with soybean (by Qingdao Agriculture University)</p>				<ul style="list-style-type: none"> Before planting: Glyphosate –based products (such as TM nongda; zhencaoning. 41% nongda AS). Dinitroaniline pesticide group. Usually at 200ml/mu, +water 30-50kg/mu, but double-check label. Use before planting as it is non-selective. 	<ul style="list-style-type: none"> WHO toxicity class III (slightly hazardous); No spray under windy conditions. Restricted re-entry interval (REI) 1 day. Works only when getting into contact with weeds. Sprays on soil do not help.
 <p>Young stage of weed that needs control (photo xiaolong)</p>				<ul style="list-style-type: none"> Soil before planting: Trifluralin –based products (such as TM tefuli, futeli, qiekening, fulike, 48% Trifluralin EC). Usually at 80-100 ml/mu + water 50L/mu but check label. Soil treatment after sowing before emergence: Oxadiazon –based products (such as TM guangmieling, nongsita; 25% nongsita EC). Usually at 75- 100ml/ mu +30-50L water/mu, but check labels. Leaf and stem treatment after emergence: Fomesafen –based products (such as TM huwei, chudouyou, doucaowei). For late weed infestation (soybean at adult-plant stage) Glyphosate–based products carefully used by orientational spraying between soybean and not covering crop. 	<ul style="list-style-type: none"> Unlikely to present acute hazard in normal use (WHO Class U); Till field after herbicide use. Unlikely to present acute hazard in normal use (WHO Class U); No use beyond recommended dosage as this will kill the soybeans.
					<ul style="list-style-type: none"> WHO toxicity class II (moderately hazardous). Follow label. Overuse can damage soybean. WHO toxicity class III (slightly hazardous); Nozzle with circular shield, assure no herbicide drifting, as this will kill the soybean.

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