

Oregon Weed Control Recommendations for Grass Seed Crops

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Weed seeds and unwanted crop seeds are serious contaminants in most seed lots. The seed grower's first responsibility is to plant clean seed on clean land. Seed fields, even though seeded with clean seed on relatively clean land, have some weeds. Weed plants must be removed in the field or the seed removed in the seed-cleaning plant. Field removal of weeds with herbicides is usually easier and less expensive than removal by cleaning equipment.

There are numerous herbicides that do a good job controlling most weed pests. Herbicides such as diuron (Karmex), simazine, and atrazine, when properly used, control most annual weeds. IPC and CIPC control annual grasses. Dicamba (Banvel D) controls seedling grasses under some conditions, as well as annual and perennial broadleaved weeds. Choice of herbicide, time of spraying, rate of spraying, soil moisture, and method of application spell success or failure with any of these herbicides.

Diuron, simazine, and atrazine must be applied when the weeds to be killed are in the seedling stage of growth. These chemicals do not, at selective rates, kill established plants, even annuals. Timing is very important for IPC and CIPC. IPC and CIPC must be applied when the weather is cool and the soil moist. These chemicals, when applied later than the dates indicated on the attached spray charts, can prevent heading of the seed crop the following year. Dicamba is excellent for the control of sheep sorrel and dock. This chemical must be applied after new leaves have developed on the sorrel or dock.

Straw and chaff from harvested crops reduce the effectiveness of all herbicides. Straw should be removed by burning or by mechanical means. Carbon from burned straw reduces the effectiveness of diuron, simazine, and atrazine. If all straw and chaff are not con-

sumed by the fire, some cultural practice, such as harrowing to spread and break up the organic mat, will improve weed control. Burned fields should be sprayed with 20 to 25% more herbicide than nonburned fields.

It is advisable, when possible, to alternate the use of herbicides each year. Such changes help prevent build-up of certain tolerant plants. Alternate uses also reduce possibilities of build-up of toxic residues.

2,4-D will effectively control most broadleaved plants. New grass seedings should not be sprayed until the seeded grass is 6 to 8 weeks old. Established grass seed fields should not be sprayed when the seed heads are in the boot or heading stages of development.

Several of the herbicides mentioned are soil sterilant at higher rates of application. Thus, it is essential that spray equipment be properly calibrated and operated to apply the proper amount of herbicide. Exceeding the recommended rate can result in severe crop-plant injury and seed-yield reduction. Avoid overlapping, which doubles the rate of application on the overlap areas. To get more uniform spray coverage, mixing the spray solution at $\frac{1}{2}$ concentration and double spraying gives good results. When this is done, much less damage results from overlap, and there is less likelihood of untreated skips.

Diuron, simazine, and atrazine are wettable powders. Good agitation is needed for even spraying. Spray nozzles used for wettable powders must be checked regularly for wear. Experimental studies show that nozzles applying wettable powders will wear with 30 hours use, enough to increase spray rates 20%.

Chemicals used at selective rates will not control established perennial plants such as quackgrass, velvetgrass, or tall fescue. Such plants require special spot spraying or mechanical removal.

WEED CONTROL RECOMMENDATIONS FOR OREGON GRASS SEED CROPS

CROPS	CHEMICAL	RATE PER ACRE AND CARRIER	REMARKS
STATEWIDE			
Grass (all grasses)	2,4-D	$\frac{1}{2}$ to $\frac{3}{4}$ lb. in 10 to 20 gals. of water.	For the control of broadleaved weeds. Spray before the boot stage of the seed crop. New seeding should have at least 60 days growth before spraying.
	Dinitro amine	1 $\frac{1}{2}$ lbs. ($\frac{1}{2}$ gal.) in 20 or more gals. of water.	Dinitro amine can be used on new grass seedings after grass has three or more true leaves.
	Dicamba (Banvel D)	$\frac{1}{2}$ lb. in 10 to 20 gals. of water. 1 lb. 2,4-D added to $\frac{1}{2}$ lb. dicamba controls weeds not controlled by dicamba alone.	For sheep sorrel control, spray from November to April. Sheep sorrel should have new leaf growth when sprayed. Do not pasture sprayed fields.



This is one of a series of *Fact Sheets* reporting Cooperative Extension work in agriculture and home economics, F. E. Price, director. Printed and distributed in furtherance of Acts of Congress of May 8 and June 30, 1914. Oregon State University, Oregon counties, and U. S. Department of Agriculture cooperating.

WEED CONTROL RECOMMENDATIONS FOR OREGON GRASS SEED CROPS (Continued)

CROPS	CHEMICAL	RATE PER ACRE AND CARRIER	REMARKS
WESTERN OREGON			
Perennial ryegrass	CIPC	2 lbs. in 10 to 20 gals. of water by ground, at least 5 gals. by air.	Use IPC and CIPC only on fields which have been harvested for seed at least once. Spray before October 31. Spray after fall rains have started. Good agitation is needed. Spray in early fall when weed seedlings are small. Spray after the first seed harvest. Do not pasture sprayed fields. Do not use more than two consecutive years.
	IPC	3 lbs. in 10 to 20 gals. of water by ground, at least 5 gals. by air.	
	Atrazine	1½ lbs. in 10 to 20 gals. of water by ground, at least 5 gals. by air.	
Highland and Astoria bentgrass	IPC	4 lbs. in 10-20 gals. of water by ground or at least 5 gals. by air.	Spray IPC and CIPC in October for annual grasses. Spray established fields only. Spray before October 31. Spray early when seedlings are small. Do not pasture sprayed fields. Use 4-lb. rate following heavy burning. Spray when weed seedlings are small (Sept. 15 to Nov. 15). Bents are not as tolerant of diuron as orchardgrass or bluegrass.
	CIPC	3 lbs. in 10-20 gals. of water by ground or at least 5 gals. by air.	
	Simazine	2½ lbs. per acre in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Diuron (Karmex)	2-4 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	
Kentucky bluegrass varieties	IPC or CIPC	3 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	Spray before Nov. 1. Do not spray fields before the first seed harvest. More effective on riggut brome and wild oats than diuron. Spray after first rain when weed seedlings are small. Use 4 lbs. on burned fields. Use 2 lbs. on well established seedling stands. <i>Simazine or atrazine are recommended for bluegrass only when there is a bad riggut brome or wild oat problem. Yield reductions may result from treatment. Do not pasture sprayed areas. Spray after the first fall rains.</i>
	Diuron	2-4 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Simazine	3-3½ lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Atrazine	2½ lbs. product in 10-20 gals. of water by ground, at least 5 gals. by air.	
Tall fescue (Alta)	IPC or CIPC	3 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	Do not use before the first harvested crop. Spray before Oct. 31. Use 4 lbs. on old fields which have been fall-burned. Do not use more than 2 lbs. on new stand. Do not pasture fields sprayed with simazine or atrazine. Spray after first fall rains. Better wild oat and riggut brome control than from diuron sprays.
	Diuron	2-4 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Simazine	3-3½ lbs. of product in 10-20 gals. of water by ground, or at least 5 gals. by air.	
	Atrazine	2½ lbs. product in 10-20 gals. of water by ground, at least 5 gals. by air.	
Orchardgrass	IPC or CIPS	3 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	Do not spray new fields before first harvest. Spray after first rain before Oct. 31. Spray after first rain when weeds are small. Use 4-lb. rate following burning. Do not use more than 2 lbs. on new stands. Do not pasture fields sprayed with simazine or atrazine. Spray soon after first fall rains.
	Diuron	2-4 lbs. per acre in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Simazine	3-3½ lbs. product in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Atrazine	2½ lbs. product in 10-20 gals. of water by ground, at least 5 gals. by air.	
Chewings fescue or creeping red fescue	IPC	3 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	Do not spray fine fescue fields before the first seed harvest with IPC or CIPC. Spray after first rain before Oct. 20. Spray after the first fall rains when the weeds are small. Spray by Nov. 30. Early applications are best. Do not use diuron two consecutive years. Spray soon after the first fall rains when weed seedlings are small. Do not spray before the first seed harvest. Do not pasture sprayed fields. Do not use more than two consecutive years.
	CIPC	2 lbs. in 10-20 gals. of water by ground, at least 5 gals. by air.	
	Diuron	2 lbs. product in 10-20 gals. of water by ground, or 5 gals. by air.	
	Simazine	2½ lbs. of product in 10-20 gals. of water by ground, at least 5 gals. by air.	
EASTERN OREGON			
Chewings fescue, creeping red fescue, orchardgrass, tall fescue, Kentucky bluegrass var.	Dicamba (Banvel D)	3 lbs. (3 qts.) in 10-20 gals. water by ground, or 5 gals. by water by ground, or 5 gals. by air.	Controls downy brome (cheat grass) and rattail fescue. Spray within 10 days of first fall irrigation when soil is still damp. Spray after first seed harvest. Fields should be burned. Unburned straw should be completely removed before spraying. Do not pasture sprayed fields.