UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

30
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MEMORANDUM

SUBJECT: Review of Oregon Request for Emergency Exemption of Oxyfluorfen on Grasses Grown for Seed to Control Weeds (89-OR-21)

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Introduction

We have reviewed the request from Oregon for an emergency exemption to use oxyfluorfen (Goal^{R}) for weed control in grasses grown for seed. The grass grown for seed market is valued at $211 million per year. Attempts have been made to contact experts in the state to discuss the biological and economic aspects of the request. State weed control recommendations and available literature have also been used to evaluate the situation. The following is a brief summary of our findings.

Biological Aspects

Open field burning which controls weeds in grass seed field has been restricted in the last few years. Because of the restrictions several grasses and volunteer crop seeds have become major weed problems. Propane flaming once a viable but expensive option to open field burning will also be restricted this year. Volunteer weed seeds can reduce the quality of the crop so that it cannot be certified. Yield losses of perennial ryegrass have been found reduced by 50 percent under heavy Poa trivalis infestations. Further increase in weed infestations and loss of certification can be anticipated this year with the loss of atrazine and simazine for weed control of

volunteer weeds. All other available herbicides have either a limited weed control spectrum or are only specific for one or two grass seed crops. Most of the registered herbicides are not effective for use under heavy crop residues which occur with open field burning. Efficacy data shows that oxyfluorfen will control major weed problems in established grasses and provide a remedy for the loss atrazine and simazine.

Economic Aspects

There are approximately 166,000 acres of grasses grown for seed which are planted in Oregon. The sales of these grass seeds are $211 million per year. These grasses include tall fescue, orchardgrass, bentgrass, kentucky bluegrass, perennial ryegrass and fine fescues. Average yields range from 351 lbs/ac for bentgrass, to 1,239 lbs/A for tall fescue. The average yield is 1,011 lbs/A. There has been an increase in average yields in four out of the last five years since 1984.

The average value of grass seed is $66.60 per cwt. Bentgrass is the most valuable, at $261/ cwt, while perennial ryegrass is the least valuable at $52/ cwt. A premium is paid for seed that is certified. This premium ranges from 10 to 25 cents per cwt. In order for a crop to be certified, it must meet stringent standards of purity. The restrictions on open field burning as a sanitation practice, in addition to the loss of simazine, atrazine, propham, and chlorpropham for use on grass for seed, may not only bring severe yield losses but may jeopardize the grass for seed industry in Oregon.

On the basis of a break-even analysis, the average variable costs for the 1988 production year for grass grown for seed in Oregon are approximately $400 per acre. At the price of $67/ cwt for grass seed, growers must obtain 60% of historical average yields to break even. Thus if crop loss estimates of 50% are accurate, growers will be operating in a net loss environment.

Conclusions

The control of grassy and volunteer weeds has become an increasingly severe problem in grass seed crops with the restriction of open field and propane burning. The use of oxyfluorfen will provide an appropriate remedy to avoid further yield/quality losses.

Information Contacts:

Burrill, L.C., W.S. Braunworth, R.D. William, R. Parker, D. Swan, S. Howard, and D. Kidder, 1989. Pacific Northwest Weed Control Handbook. Pages 46-69.