

## TRENDS IN TURFGRASS PESTICIDE REGULATION

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It becomes increasingly difficult for a manufacturer to obtain registration for a pesticide. The need for regulation and registration is obvious. But the continual increase in costs to research and develop new pesticides and then to obtain commercial registration is a matter that concerns all manufacturers, resellers and users. In the early 60's, for example, the cost of discovery and development of a major new agricultural chemical was about \$4,000,000; to get the same work done today would cost \$15,000,000. Already some of you may be saying that a commercial product for turf or ornamentals would doubtless be much less costly. I would agree, if you are thinking about a product that is limited only to turf. But on any scale, it's clear that costs are up - and they're big. And during the time that this work for commercial registration is going on and money is being spent, there is no guarantee that the product will provide a reasonable return on investment. Therefore, we are finding fewer companies are willing or able to afford the development risks that may produce a useful product.

Our present regulatory procedures are obviously more restrictive than in the past. These procedures require more time, more manpower, more information and data. All of this provides added assurance on safety and efficacy to the user of crop chemicals-- but it also means more money must be invested.

Recently, a government spokesman suggested that the agricultural chemical industry could "best serve the farmer and the environmentally concerned consumer by developing new products that effectively attack target pests, are readily degradable and yet not seriously harmful to other aspects of the environment." This challenge is one that has long been recognized in industry. Our management perceives that there is real opportunity for crop protection chemicals that are soundly conceived and properly developed. Such materials have the capacity for generating more efficiency to the user and for acting as a catalyst in stimulating greater production by growers of many crops scattered around the world.

### HOW ABOUT THE FUTURE?

How do we in Du Pont regard the future of agrichemicals?

The answer is both simple and complex. But we see clear targets and goals. The world needs more food and we in the crop protection industry have certainly demonstrated our ability to find and develop useful new tools that help boost yields, improve quality and provide savings in manpower for the user.

No doubt some of you are now thinking that our references to agriculture and the farmer have little or nothing to do with the turf industry. We believe them to be very closely tied together. Consider turf chemicals and you will find most of them are also used in commercial agriculture. If new ones are to come along, they will need a very large potential sale, so that a commercial company can justify the investment needed to discover, develop, and manufacture the new products.

With this little background on chemicals, what is new that is going to affect you directly?

1. Certification of applicators - The amended Pesticide Law of October, 1972 (FEPCA) whereby applicators of restricted chemicals will have to pass tests to be certified. This law is to be effective in 4 years (October, 1976). If the individual states have plans for handling this certification, such plans must be offered to the federal authorities in 3 years or the federal government will use the national plans. Some states are already giving classes and tests. California has a program in effect.

2. All plants making or formulating crop chemicals must have applied for registration by December, 1973. All pesticide packages will have an EPA number showing where the product was manufactured.

3. A closer check on the use of temporary or experimental permit is also anticipated. When any experimental use permit is issued for any chemical or combination of chemicals not included in any previously registered pesticide, the administrator may specify that studies be conducted to detect unreasonable adverse effects on the environment.

Reports on experimental programs shall be submitted at 3-month intervals and at the end of the experimental program. These reports shall include: (a) amount of product shipped during reporting period; (b) name and address of consignee of each shipment; (c) a summary of data on effectiveness, phytotoxicity, or other pertinent information obtained during the reporting period; (d) any additional data on residues or analytical methods obtained during the reporting period; and (e) any additional data on toxicity obtained during reporting period.

4. New regulations have been proposed that will allow EPA officials to check books and records of manufacturers to aid in the enforcement of the new pesticide laws. Resellers will also have to keep certain records on all pesticides, such as from whom received and where they have been sent and the quantities involved.

5. Another proposed regulation concerns possible use of one firm's safety and effectiveness data should a second company wish to seek registration on a similar product. In this situation, the EPA will make this request public and the first manufacturer must put in a claim against the request for registration within a period of 60 days. When the first manufacturer puts in his claim, he also proposes reasonable compensation for the use of his safety efficacy data. If the charge for the data is satisfactory to the second registrar, settlement is made. If not and no satisfactory agreement can be reached, a figure will be set by the administrator. Under such a regulation the EPA could find itself cast in the role of arbitrator, judge and jury.

In the broad field of crop chemicals there are other proposals under consideration, including some governing the re-entry of people into areas where crops have been treated for control of insects or disease. No one knows whether this proposal might be extended to the turf field. At present, two federal agencies are involved--the Department of Labor and the EPA. No decisions have been announced, but an extended series of hearings has been held.

Altogether, we obviously have a picture of uncertainty in the pesticide regulatory field today. It seems likely that this uncertainty will continue.

## CONCLUSIONS

All of us in crop protection want only properly tested and registered crop protection compounds with appropriate labels to be on the market. This desire is reflected in the increased emphasis by regulatory agencies on toxicity testing and on long and short range effects of these products on the environment. There may be the feeling that this increased emphasis on environmental quality will somehow limit the function or service of crop protection itself. We do not agree. Crop protection chemicals will continue to be needed and they will be used more efficiently. With new pesticide laws and continued emphasis on proper use of the chemicals, everyone will be more conscious of the label and its basic information. The information is put there by the manufacturer and is approved by EPA. It provides assurance of the efficacy of the product when used as recommended by the turf man in turf management.