

USE OF PESTICIDES IN FOREST NURSERIES - WHERE DO WE STAND

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In answering the question "Where do we stand right now in regard to the use of pesticides in forest tree nurseries?", I could paint a pretty rosy picture. I could point out that, for a lot of the major insect and disease problems in the nurseries, we presently have some lines of defense. While some are not always as effective as we'd like, they do constitute actions we can take to minimize our damage. I could continue and tell you how much better off you are than the seed orchards and the general forested areas in that you have chemicals for most of your pest problems which, when used as directed, will provide good control. As most of you know, we have a whole host of insect species that hit seed orchards for which there are no registered pesticides.

However, simply having registered pesticides at your disposal at the present time does not constitute the entire picture of where or how you stand. There is another side to this picture and it has a great deal to do with our present as well as future use of pesticides on the nurseries.

As off of you know, we are in a period of "environmental awareness". There is not a news media in the country that does not weekly carry some feature relating to contamination of the environment. Quite naturally pesticides come in for their share of attention. Now I'm not going to expound on the right or wrong or the justification of this--rather I'm going to tell you that this is a fact and that it is going to affect the way you, as nurserymen, carry out your insect and disease suppression projects.

We are at an "in between" stage in some of our pesticide regulations. By this I mean we are in between the legislative process of enacting pesticide regulations and the actual effective dates of their implementation and ultimate field response to them. We are in what I would term a period of grace. We know a lot of what's coming and this is the time to be making preparations. Admittedly, you as nurserymen have already been affected to some degree by past pesticide regulatory action such as the DDT restriction. I am also sure that whether you are representing a federal, state, or private nursery you've noted sharp upswings in public interest and awareness and the need for justification and documentation you now either have to provide or be ready to provide regarding your use of pesticides. This, however, does not represent the end of your involvement in the current pesticide situation.

In order to tell you where we are now, it is going to be necessary for me to tell you a little bit about the beginning. In order to regulate the marketing of economic poisons and devices for pest control, the Congress in June of 1947 passed the Federal Insecticide, Fungicide, and Rodenticide Act. Amended in 1959 and again in 1964, the Act provided that no pesticide chemical could be legally shipped in interstate commerce for general use until: (1) it had been shown to be safe when used as directed, (2) it was effective for the purpose claimed on the label, and (3) safe residue tolerances that would remain on food or feed had been established. The Act required that these conditions would have to be met before a pesticide was given Federal registration. The Act then prohibited the shipment in interstate commerce of products which were not registered. On September 16, 1971, a bill was introduced in the House of Representatives which would again amend the Federal Insecticide, Fungicide, and Rodenticide Act. This bill, which has a favorable Senate Committee review is in the works and there is every reason to believe that it will be passed. Whereas the current Act provides for the registration of pesticides and regulates the interstate shipment of them, the amended version would also cover the pesticides application and use, including who uses it. In other words, it carries the authority of the Act a step further and in so doing involves you as a user in the field to a much greater extent than ever before. The amendment provides for two broad classifications of pesticides: (1) for general use, and (2) restricted use. The Act defines a general use pesticide as one that will not cause substantial adverse effect on the environment when applied in accordance with the directions for which it is registered. The amendment does not elaborate further on a general use pesticide nor does it give any examples. However, I would envision it as meaning a pesticide which is of little to no toxicity to warm-blooded animals, one of low residue, one in which application would be over a limited area with a minimum amount of chemical, and one in which application would be closely controlled. The amendment defines a restricted pesticide as one that without additional regulatory restrictions, substantial adverse effects on the environment may occur including injury to the applicator. A rather unique feature of these classifications is that in some cases a single pesticide may be both a general and a restricted one. For instance, malathion may be classified as a general pesticide for control of a rose thrips and as a restricted one for pine sawflies. Classification will not be based on just the chemical component and its toxicity but also its intended use and the nature of its application. There will be little reason for confusion since classifications will be included and printed on the label. When a pesticide is classified as being restricted for a given use because of a determination that it requires additional regulatory restriction, the pesticide shall be applied by or under

the direct supervision of a "certified pesticide applicator" and herein can lie the impact on you as nurserymen. The amendment would recognize two types of pesticide applicators: a private applicator and a commercial applicator. There would be provision for establishing separate standards for each of the certified applicators. They would define a private applicator as one who uses or supervises the use of any pesticide which is classified for restricted use on property owned or rented by him or on the property of another person when applied without compensation. I draw your attention to the fact that the bill does not say certification would not be necessary for private applications-- it said standards for certification would be different.

The term commercial pesticide applicator means one who uses or supervises the use of any pesticide which is classified for restricted use for any purpose or on any property other than his own for compensation. The bill, in its present form, does not provide the standards for the certification of pesticide applicators of either type. Rather it provides for preparation of these standards within one year after the enactment of the bill. Now while the bill in its present form does not tell us exactly what certification will consist of, or what will be required of individuals seeking certification, nevertheless, it gives us insight into the fact that some sort of certification or licensing will in all probability be required by Federal law for people supervising or actually applying pesticides which fall under a restricted classification.

The amendment also provides itself with some teeth for enforcement through Civil and Criminal penalties:

1. A Private Applicator violating the Act subsequent to a written warning from E.P.A. can be assessed up to \$1,000 for each offense or imprisonment for up to 30 days.

2. Any Registrant, Commercial Applicator, wholesaler, dealer, retailer, or distributor violating the Act can be fined up to \$25,000 or imprisonment for one year, or both.

I might also mention some time factors relating to this amendment: Requirements that restricted pesticides can be applied by only certified applicators will not be effective until four years after the Amended Act is enacted. Accordingly, four years will be provided for applicators to become certified.

So far, all I've talked about is Federal certification of applicators where the Environmental Protection Agency, in which the enforcement of this Act is vested, issues the guidelines and the standards for the certification procedures. The amendment, however, also provides for State certification of applicators. The Environmental Protection Agency, when requested by a State, can designate a State agency as being responsible for the certification of applicators. The amendment states that within three years after its enactment, each State desiring to certify pesticide applicators shall submit a State plan to the Environmental Protection Agency for that purpose.

Some information regarding State-Federal cooperation in pesticide regulation might be appropriate here. Following the adoption of the the original Federal Insecticide, Fungicide, and Rodenticide Act in 1947, many States enacted essentially the same legislation requiring registration and labeling of economic poisons as a prerequisite to their lawful introduction and shipment in commerce. As a result, almost all States now have pesticide registration laws. Numerous States, for instance, have already enacted comprehensive pesticide control laws which resemble the amendment to the Federal Insecticide, Fungicide, and Rodenticide Act that we have just discussed. North Carolina, for instance, in October of 1971 enacted a Pesticide Control Law which among other things requires the examination and licensing of pesticide dealers and also requires the examination and licensing of applicators and consultants. In April of this year, Florida approved a Senate bill which provided for licensing of dealers for certain restricted pesticides. Tennessee, in April of this year, amended its past Pest Control Act and adopted the Tennessee Pest Control Operators Act of 1972 which closely governs their activities within the State including their licensing. In April of this year, Georgia enacted its first pesticide use application law etc. Irregardless of what State you're from, you are in the midst of change regarding pesticide application procedures.

What do all of these regulations briefly discussed here mean to your actual field operations? First of all, it means an end to arbitrary decisions regarding pesticide usage and application. You will, first of all, be required by law, both your State and your Federal law, to follow the label instructions. You will need to determine the classification of the various pesticides. Is it a general or is it a restricted? In the case of a restricted pesticide, there will be no more arbitrary decisions to sent out an unsupervised man to take care of a routine pest control job unless, of course, he is certified. No longer will field personnel in the absence of supervision conduct the fumigation procedures. In all probability, you may expect periodic inspections from State and/or Federal agents. Whenever the guidelines become firm

for the licensing or certification of pesticide applicators, you will be required to have yourself or one or more of your field personnel so certified. This person (or persons) will be on the ground on site during all pesticide application procedures. In all probability, it will also mean an increase in the preparation and maintenance of records on the use of pesticides on your nursery. Now, while it is true that certain States may issue special dispensation to their personnel on a State-operated nursery for certain exemptions from the state laws governing pesticide usage, I would not count on it being a permanent arrangement for this reason--if the amendment to the Federal Insecticide, Fungicide, and Rodenticide Act is passed, it will mean that on the label of a restricted pesticide it will be stated that the pesticide be applied only by a certified applicator. I also envision this same situation on a private nursery. Although a nurseryman on a private nursery will probably be certified as a "private" applicator as opposed to a commercial one, still he would be bound by the instructions on the label of a restricted pesticide the same as anyone else.

I think this all brings us now to the question "What should we be doing now to prepare ourselves for these regulations that will certainly have an impact on the way we do business?" Well, first of all, I believe that each of us, as nurserymen, should be aware of the pesticide laws and regulations within our States. While there are some features that are common to all the States, they are certainly not uniform, especially those which relate to the use and application of what I'll term agricultural pesticides--i.e., the type you'd be using. It would be good to review your track record on your given nursery in regard to your past use of pesticides. Have you, for instance, been using some nonregistered compounds? Are the pesticides you are currently using the most effective and safe or are you using parathion where malathion would work? Do your spray schedules reflect the most current research findings and development? Are the people you have mixing and applying the pesticides being given proper training on the safe and effective use of those pesticides? By answering these questions and by subsequently modifying your approach to the pesticide applications on your nursery, you will in effect be approaching the standards which ultimately are going to be required by law. You will be doing the best job possible and at the same time rendering ultimate compliance with the law as easy as is possible when it becomes effective. Changes are never easy and anything we can do now to make it easier should be done.