ORGANO-AUXIN HERBICIDES

Understanding Rule 5E-2.033 Restrictions and Prohibitions

GROWTH REGULATOR HERBICIDES

First developed in the 1940s

On a worldwide basis, more phenoxy herbicides are used than any other class of herbicides currently manufactured.

Formulated in a number of ways with each formulation possessing certain characteristics, until recently amine and ester formulations have been the most popular.

More recently choline, as well as other formulations have been developed to reduce drift and volatilzation.

GROWTH REGULATOR HERBICIDES

- Phenoxy – 2, 4D
- Benzoic acid – dicamba
- Carboxylic acid – picloram, triclopyr, clopyralid, (Tordon, Garlon, Remedy)
- The most common symptoms for these herbicides

are leaf and stem malformations. In broadleaf plants stems curl, twist and droop, while leaves are cupped, crinkled or have a “drawstring” appearance caused by irregular growth at the leaf edges. In cotton plants, points develop on leaf edges.

dicamba

GROWTH REGULATOR HERBICIDES

Phenoxy herbicide
drift
onto cotton

Dicamba
drift onto
soybeans

POTENTIAL PROBLEMS WITH ORGANO-AUXIN HERBICIDES

- Numerous law suits involving drift
- 1980's several in Florida, led to rule making of 5E-2.033
- First adopted in February 1986, amended in 1989, and again in 2004
- Purpose is to mitigate drift and volatility

5E-2.033

- SYNTHETIC ORGANO-AUXIN HERBICIDES: The synthetic organo-auxin herbicides are defined as herbicides which produce hormonal auxin type effects on plants similar to the effects of 2,4-D. These herbicides include:
- (a) 2,4-D, 2,4-Dichlorophenoxyacetic acid, in all forms;
- (b) 2,4,5-T, 2,4,5-Trichlorophenoxyacetic acid, in all forms;
- (c) Silvex, 2-(2,4,5-Trichlorophenoxy)propionic acid, in all forms;
- (d) MCPA, 4-chloro-2-methylphenoxyacetic acid, in all forms;
- (e) 2,4-DP, 2-(2,4-Dichlorophenoxy)propionic acid, in all forms;
- (f) MCPP, 2-(2-methyl-4-chlorophenoxy)propionic acid, in all forms;
- (g) MCPB, 4-(2-methyl-4-chlorophenoxy)butyric acid, in all forms;
- (h) Dicamba, 2-Methoxy-3, 6-dichlorobenzoic acid, in all forms;
- (i) Triclopyr, (3,5,6,-Trichloro-2-pyridinyl)oxyacetic acid, in all forms.

SUSCEPTIBLE CROPS

- Tomatoes
- Peppers
- Watermelons
- Eggplants
- Ornamental broadleaf plants
- Soybeans
- Grapes

MINIMUM DISTANCE FROM SUSCEPTIBLE CROPS

Wind Speed	Ground Equipment
0 -3	1/8 mile downwind, 1/8 mile cross wind, 20 feet upwind
3 – 6 mph	1/4 mile downwind, 1/8 mile cross wind, 5 feet upwind
6 -10 mph	½ mile downwind, ¼ mile cross wind, 5 feet upwind
Above 10mph	Prohibited

SPECIFICS

- Wind speed will be measured at treatment site up to two miles away.
- Wind speed measurements will be taken at spray boom height for ground, and at least 6 feet above the ground for aerial and airblast applications.
- Applicators should minimize the production of droplet size with mean volume less than 200 microns. When utilizing boom application on the ground, flat fans or their equivalent shall be used and pressures shall not exceed 35 psi.

PERSONS MAKING SPRAY APPLICATIONS OF ORGANO-AUXIN HERBICIDES EXCEEDING 5 ACRES PER 24 HOUR PERIOD SHALL KEEP THE FOLLOWING RECORDS

- (a)Name and address of the owner, lessee or tenant in control of the land and the name and address of the applicator.
- (b) Location of the site to be treated, location of the mixing and loading area and a description of application equipment used.
- (c) Date and time of application
- (d) Trade name, manufacturer, formulation, total amount of product to be applied per acre and the amount of active ingredient
- of the product applied per acre.
- (e) Total acreage and crop or site treated.
- (f) Average hourly wind speed and direction

RECORD KEEPING CONTINUED

- (g) Nozzle type including gallons per minute rating at specified pressure and angle of spray emission if applicable.

MORE REQUIREMENTS UNDER THE RULE

- Aerial application of organo-auxin herbicides by fixed wing aircraft from January 1 until May 1 of each year in Hendry, Palm Beach, Glades or Martin counties is prohibited.
- The use of rotary wing aircraft using Microfoil spray booms or their equivalent
- Right-of-way and aquatic spray applications is allowed provided the terms of the other aspects of the rule are met.
- Applicators who apply organo-auxin herbicides to ditches, canals, or the banks of similar waterways will assure that they are not treating water that will be directly used for irrigation of sensitive crops.

ORGANO AUXIN CONTINUED

- Aerial application of organo-auxin herbicides by fixed wing aircraft from January 1 until May 1 of each year in Hendry, Palm Beach, Glades or Martin counties is prohibited. The use of rotary wing aircraft using Microfoil spray booms or their equivalent for right-of-way and aquatic spray applications is allowed provided the terms of subsections (2), (3), (4), (5), and (6) are met.
- Applicators who apply organo-auxin herbicides to ditches, canals, or the banks of similar waterways will assure that they are not treating water that will be directly used for irrigation of sensitive crops.
- The ground application of low volatility 2,4D products registered in the State of Florida for use as a growth regulator on red potatoes in small dosages substantially less than for herbicidal use is not subject to the use regulations and restrictions set forth in subsections (3) and (4) of this rule provided the product is not applied within 50 feet of susceptible crops, the spray boom height does not exceed 18 inches above the crop canopy and label instructions are followed.

QUESTIONS?

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