

Compatibility of Worker Protection Standards and Integrated Pest Management Strategies

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COMPLYING WITH THE WORKER PROTECTION STANDARD LAW

The Worker Protection Standard Law went into full implementation this year. Southern Growers Nursery has made the capital expenditures, spent the extra man hours, and put forth the effort to comply with all regulations. These efforts include: increasing employee training, providing and maintaining personal protective equipment, building decontamination sites, buying and using notification signs, establishing a central posting sight, and maintaining records. After considerable expenditures of both money and effort, we are to the best of our knowledge in compliance with this new law.

UTILIZATION OF INTEGRATED PEST MANAGEMENT (IPM)

The restricted entry intervals (REIs) imposed on our employees are preventing the use of many of the best available fungicides, as well as some highly effective insecticides. We are coping with these hardships by turning to Integrated Pest Management (IPM). For our company, IPM includes the use of products with reduced REIs (whenever possible), regular scouting, insect and disease identification, and spraying only when insect threshold levels are met. There are 114 products recently authorized by the EPA to have the new 4-h REI. The EPA has identified those products as being "low toxicity". We use as many of these reduced-REI chemicals as possible, including *Bacillus thuringiensis* (Dipel), glyphosate (Roundup), paraffin oil (Target and Sunspray), fatty acids (M-pede), NAA, and IBA. We are also experimenting with the use of predatory insects. To add more chemicals to the list of 4-h REIs, the EPA must be petitioned before 31 December 1995.

INSECTICIDAL OIL AND SOAP SPRAYS

Oil and soap have proven to be effective against many insects on a broad range of plants. We have used Saf-t-Side, a Lawel Chemical Company product, against two-spotted spider mites, white flies, lacebugs, aphids, mealybugs, overwintering scale, scale crawlers, spruce spider mites, and European red mites. We have successfully sprayed oil during every month of the year; we do not spray oil when the temperature is below 2C (35F) or above 27C (80F) or and when those temperatures will be met before the spray has dried. Narrow-range oil phytotoxicity is discussed in great detail in the *Alabama Cooperative Extension publication Nur95-1* (Tilt, et al., 1995). We successfully use soap year round. We use M-Pede, by Mycogen Corp., to combat aphids, white files, and fungus gnat adults. We do not spray soap when the temperature is below 7C (45F) or above 32C (90F). Neither insecticidal oil nor soap can be sprayed on plants that are dry, or that appear to be under moisture stress. Other advantages of these insecticides include the establishment of beneficial insects, low mammalian toxicity, and no resistance build up. I have found that after using soap to control aphids, white flies, and thrips during

the growing cycle, phenomenal control can be gained with more traditional chemical insecticides to ship an insect-free crop. IPM not only reduced our company's pesticide budget, but also has alleviated some of the problems created by REIs. We have taken a proactive stance towards government regulations—one instance being hosting all the nursery inspectors for the state of Alabama during their WPS training sessions.

CCC ASSOCIATES

Our parent corporation is CCC Associates, whose American operations include Southern Growers Greenhouse, Cassco (a wholesale nursery supply), Southern Homes and Gardens (a retail garden center), a landscape division, Naturaline (a dried flower producer), wholesale cut flowers, a retail florist, a wholesale floral supplier, and a silk flower division. Approximately 450 employees work at our 265-acre main complex which includes extensive public gardens. Considering the safety of our employees and customers as well as the resident wildlife population, we must be conscientious of pesticide handling, pesticide selection, and overall management of our watershed.

WPS COMPLIANCE

I have contacted the WPS enforcement offices for Alabama, Georgia, Florida, South Carolina, North Carolina, Texas, and Tennessee. These states are all in EPA Region 4. Region 4 is the lead region for WPS compliance. Each state aforementioned is currently in a compliance assistance mode. None of the states have yet assessed any fines for WPS violations. Texas inspected the most nurseries (361) in the southern U.S., but only 128 farms were inspected. The rest of the southern states inspected between 100 and 160 nurseries per state. Each state does intend to switch to an enforcement mode in approximately 2 to 6 months. Texas and Florida have built a database to work from to begin the enforcement process. As fines begin to be assessed, the issue of WPS laws will become heated. Every gain made to ease compliance is a milestone for the nursery industry.

RESPONDING TO THE EPA

The American Association of Nurserymen (AAN) is our unified voice to the EPA in Washington. They have contributed to several successes in WPS negotiations. Some of these include the exception for "limited contact" activities, reduced restricted entry levels, delay of implementation, exception for irrigation activities, exemption for crop advisors, and the 5-year retraining interval. The current EPA docket, which is open for discussion, includes a pending decision regarding the proposal to change the required sign size for posting from 36 cm × 41 cm (14 in. × 16 in.) to a minimum of 8 cm × 10 cm (3 in. × 4 in.) (Environmental Protection Agency, 1995). The smaller sign would not only ease the problems associated with wind blowing over the stands but also reduce the cost of signs and stands. Other advantages of the smaller signs would be the ability to identify small areas and the advantage of a spot sprayer to be able to carry signs with them. A problem with this proposal is that the EPA wants to make this exception valid only if the larger signs cannot be used, leaving the interpretation of the law in the hands of the individual investigators. The deadline for the nursery industry response to this issue is 13 November 1996.

ESTABLISHING NURSERY INDUSTRY GOALS FOR COMPLIANCE LAWS

We must, as an industry, set common goals to help make compliance with these federal laws feasible. Perhaps nurserymen, speaking with a loud, unified voice, can convince the federal government to listen to our concerns. We, as an industry, can become a leader in the agricultural community by following practices such as *Best Management* and *Integrated Pest Management*. This will benefit each nursery in many ways, saving money and time, avoiding future governmental conflicts, and maintaining a reputation with the consumer as being an environmentally-friendly, "green" industry.

LITERATURE CITED

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