

# IMPORTANCE OF PESTICIDE REREGISTRATION IN PLANT PROPAGATION

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Before a pesticide can be labeled for use on an ornamental species, it must be registered by the Environmental Protection Agency (EPA). Normally, the manufacturer or registrant will develop necessary data to secure a new label. But, since the pesticide market for ornamentals is limited, many possible registrants estimate that potential profits do not justify costs and decide not to become involved in developing low-use labels.

The serious lack of pesticides registered for use on ornamentals was brought to light in several surveys carried out in 1976-1977 by the American Association of Nurserymen. The surveys disclosed that there were very few pesticide labels available for control of diseases, insects, and weeds in commercially grown ornamental crops, including floral and foliage plants grown in the greenhouse and out-of-doors; woody nursery stock, both container and field grown; shade and flowering trees; and turf and interior landscape plantings.

The National IR-4 Project is a USDA-funded cooperative effort established in 1963 for the registration of pesticides on minor-use food and feed crops. This group was approached for assistance in securing pesticide labels for ornamentals. With an appropriation of additional funds from Congress, IR-4 initiated its ornamentals program in 1977 and documented needs for more than 6,000 specific pesticide uses on ornamental species.

For over 12 years IR-4 maintained, updated, and enlarged its computerized records on pest control needs in the ornamental industry, and developed data required to include different ornamental species and cultivars on expanded pesticide labels. With the cooperation of research scientists at commercial nurseries, universities, and state and federal agencies, IR-4 has collected volumes of pesticide use information relating to disease, insect and weed control, and plant safety.

From 1977 until 1985 the IR-4 Ornamentals program was working in high gear. Starting from a base of over 5,000 pesticide label needs, several hundred new requests for pesticide labels were submitted to national IR-4 headquarters each year. The four regional IR-4

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offices plus a special USDA Agricultural Research Service minor-use unit funded over 1,000 pesticide trials on ornamentals every year. Over 80 research scientists provided IR-4 with a continuous stream of field-performance reports. Data was collated and packaged into pesticide label petitions for study by potential registrants and EPA. IR-4 was successful in helping to secure an average of one new pesticide/ornamental use label for each working day during this eight-year period.

Since 1977, IR-4 data helped secure more than 2,800 pesticide label registrations on ornamentals. Numbers of ornamental species added to many product labels are listed in Tables 1, 2, and 3.

**Table 1.** Fungicide registrations supported with IR-4 data.

Brand name (Formulation)	Ornamental uses/ species labeled	Disease control
Ahette (80W)	45	<i>Phytophthora</i> and <i>Pythium</i> root rot
Banrot (40WP)	110	Damping off and root rot
Bayleton (25WP)	80	Powdery mildew
Chipco 26019 (WP)	157	<i>Alternaria</i> and <i>Botrytis</i> leaf spot
Daconil 2787 (F)	162	Foliar diseases
Dithane M-45 (80W)	69	Foliar diseases
Exotherm	13	Botrytis diseases
Funginex (50WP)	14	Powdery mildew
Kocide 101 (77WP)	43	Foliar diseases
Manzate 200 (80W)	69	Foliar diseases
Milban (EC)	11	Powdery mildew
Ornaln (50W)	143	<i>Botrytis</i> diseases
Streptomycin 17	4	Bacterial leaf spot
Subdue (2E, 5G)	49	<i>Phytophthora</i> and <i>Pythium</i> root rot
Terraclor	43	<i>Rhizoctonia</i> root rot
Terrazole (5G)	13	<i>Phytophthora</i> and <i>Pythium</i> root rot
Truban (25E, 30W, 5G)	154	<i>Phytophthora</i> and <i>Pythium</i> root rot

Southern states have submitted more than 12,000 pesticide clearance requests for ornamental use labels to IR-4 national headquarters. Field performance data has been developed from over 11,000 research trials. The Southern Region office of IR-4, located at the Pesticide Research Laboratory, IFAS, University of Florida, Gainesville, has supported research studies every year in Alabama, Arkansas, Florida, Georgia, North Carolina, South Carolina, Texas, and Virginia. Southern Region data is added to information from other regions. Any petition for a pesticide label amendment must include data from several trials in various locations that have different environmental and growing conditions.

**Table 2.** Insecticide and nematicide registrations supported with IR-4 data

Brand name (Formulation)	Ornamental uses/ species labeled	Pest controlled
Avid (0.15EC)	45	Leaf miner, spider mite
Dycarb (75WP)	27	Certain insects
Dipel (4L)	10	<i>Lepidopterous</i> larvae
Dimlin	2	Beet armyworm
Dursban (50W)	50	Foliar insects)
Knox out	28	Greenhouse insects
Lannate (L)	185	Various insects
Orthene (75W)	72	Various insects
Oxamyl (10G)	50	Nematodes
Pentac (50WP)	22	Mites
Pounce (EC)	32	Certain insects
Pydrin (2.4EC)	41	Foliar insects
Vydate (L)	106	Certain insects, mites, nematodes
SBP-1382	44	Greenhouse insects

During the past three to four years the IR-4 program on ornamentals has slowed to about half the rate of activity during its peak period. Fewer than 200 new pesticide clearance requests were submitted to IR-4 last year.

Now that the EPA is proceeding with a 9-year project to reregister all pesticides, many products may be cancelled and certain ornamental labels may be lost. The IR-4 ornamentals program in Florida and throughout the nation will continue to develop data for labels necessary to maintain effective pest control in ornamentals.

I would encourage you to submit clearance requests for labeling of biological and chemical agents to control pathogens, insects and weeds, as well as agents to regulate growth of container- and field-grown ornamentals maintained in the greenhouse, field, or inside buildings. If requests are not submitted, it will be assumed that the materials are not needed; and they will not be reregistered. Please submit requests to me, or contact me for information, Tel. 904/392-1978.

**Table 3.** Herbicide registrations supported with IR-4 data

Brand name (Formulation)	Ornamental uses/ species labeled	Weed control
Devrinol (50WP, 5G)	248	Preemergent annual weeds
Dual (8E, 25G)	69	Preemergent annual and perennial weeds
Dual + Princep	28	Preemergent annual and perennial weeds
Fusilade 2000 (E)	83	Postemergent grass weeds
Goal (2E)	8	Weeds in conifer seed beds
Lasso (EC)	16	Preemergent weeds
Pennant (5G)	16	Preemergent weeds and yellow nutsedge
Poast (EC)	8	Postemergent grass weeds
Progrow (G)	103	Preemergent weeds
Ronstar (G)	103	Preemergent weeds
Rout (G)	21	Preemergent weeds
Roundup (EC)	132	Postemergent weeds
Surflan (75W)	121	Preemergent weeds