



COLORADO FLOWER GROWERS ASSOCIATION

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REPORTED PHYTOTOXICITY OF ACARICIDES AND INSECTICIDES TO ORNAMENTALS*

Injury to plant material after pesticide applications may manifest itself in a variety of ways. The most common are: total burn, marginal burn or spotting of foliar and/or flower parts; cupping, curling and chlorosis of foliage; and distortion of foliar and flower buds. Soil applications of insecticides may also produce these symptoms, as well as stunting of growth because of injury to the root system of the plant. Severe root injury will cause sudden wilting and death of the aerial parts of the plant. As a rule, flowers and flower buds in advanced stages of development are highly susceptible to pesticide injury. Aerosol applications are usually less phytotoxic to blossoms and breaking flower buds. Smoke formulations are usually safer than mists and fogs, provided label instructions are followed carefully.

The incidence of spray damage to plants may be minimized by applying the pesticide (at the rate indicated on the label) during the cooler hours of the day and to dry plants in a well-ventilated greenhouse. Wettable, suspensible and flowable powders are generally less phytotoxic to plants than emulsifiable concentrates, although the former may leave an unsightly residue.

To avoid the kinds of damage described above it is important to consult the pesticide labels, which in many instances indicate specifically those plants which are

sensitive to the pesticide and those for which it is specifically recommended.

It should be understood that none of the chemicals presently marketed has been evaluated for phytotoxicity on all available ornamentals. Moreover, variations in growing conditions may produce different phytotoxicity results for the same chemical. It is therefore strongly recommended that a new pesticide or a well-known one selected for application to new plant material should always be evaluated on a trial basis on a small number of plants representing the material to be protected. The toxic effects of spray applications to foliage and to flower parts should become evident within 5 to 10 days.

It is advisable to avoid closely spaced pesticide applications of one or more pesticides because residue build-up and/or chemical incompatibility may result in plant injury.

Unregistered tank mixtures of two or more pesticides may cause damage to target plants which does not occur when the chemicals are used individually.

It is suggested that applicators of pesticides become acquainted with whatever is known on the phytotoxicity of pesticides. The authors have attempted to be helpful in this manner by providing the information which follows and which was derived from an extensive literature search related to reported injury to ornamentals from acaricides and insecticides. Unless otherwise indicated, the plant injury resulted from spray or mist applications to the foliage.

The grower should verify whether the chemicals listed below have received Federal or State clearance for use under greenhouse conditions.

* From: Florogram, Volume ix, Number 3, May-June 1976, Cooperative Extension Service Suburban Experiment Station, Waltham, Mass.

Prepared by S. M. Richman and A. G. Gentile

ACARABEN* (chlorobenzilate)

Chrysanthemum (injurious to blossoms of var. "Nob Hill")
Gloxinia
Hydrangea spp.
Kalanchoe spp.
Poinsettia (injurious to the bracts of var. Paul Mikkelsen" and "Mikkelwhite")
Prunus spp.
Rose
Do not use with sulfur

ANTHIO* (formothion)

Achimenes longiflora
Adiantum sp. (Maidenhair fern)
Aeschyanthus lobbianus
Anthurium scherzerianum
Aralia spp.
Begonia spp.
Chrysanthemum
Cineraria spp.
Coleus spp.
Ficus spp.
Gerbera jamesonii
Gloxinia
Zinnia spp.

BAYTEX* (fenthion)

Rose (var. "Delightful")

CYGON* (dimethoate)

Acacia notabilis
Anthurium spp.
Anthurium scherzerianum
Aphelandra spp.
Aphelandra squarrosa
Aralia spp.
Azalea (var. "Carmen", "Stewartstonian" and "Palustrina")
Begonia spp.
Begonia maculata
Brassaia actinophylla (Schefflera)
Broughtonia spp.
Calanthe spp.
Calceolaria spp.
Carnation
Chamaedorea elegans (Neanthe Bella Palm)
Chinese holly
Chrysanthemum indicum
Cineraria spp.
Cissus spp.
Cissus antartics (Kangaroo Vine)
Coleus spp.
Cyclamen spp.
Cycnoches denticosum
Dendrobium moschatum
Dendrobium pulchellum
Dendrobium phalaenopsis
Dieffenbachia spp.
Euphorbia spp.
Fatshedera Ivy
Fatsia japonica
Ferns (no specific identification)
Ficus spp.

Ficus nitida

Freesia spp.
Fuchsia spp.
Geranium
Gerbera jamesonii
Gloxinia
Hibiscus spp.
Hydrangea spp.
Iris spp.
Jacobinia spp.
Lilium longiflorum
Maranta sp. (Prayer Plant)
Neomoorea irrorata
Nephrolepis exaltata (Florida Ruffle Fern)
Pandurata spp.
Peperomia obtusifolia
Philodendron spp.
Pilea cadierei
Podocarpus macrophylla
Poinsettia (injurious to bracts of var. "Paul Mikkelsen" and "Mikkelwhite")
Polyanthes
Primula spp.
Prunus spp. (ornamental)
Rochea
Rose
Saintpaulia ionantha
Streptocarpus spp.
Zantedeschia spp.
Zinnia spp.

DIAZINON*

Adiantum cuneatum (Maidenhair fern)
Anthurium spp.
Anthurium scherzerianum
Asparagus plumosus
Asparagus sprengeri
Asters
Begonia spp.
Brunfelsia spp.
Cacti (no specific identification)
Cissus spp.
Cissus antartica (Kangaroo Vine)
Crepe Myrtle
Cyclamen spp.
Cytisus spp.
Dianthus spp.
Dracaena sanderiana
Euphorbia pulcherrima
Euphorbia splendens
Ferns (no specific identification)
Gardenia jasminoides
Gloxinia
Hedera spp.
Hibiscus spp.
Hoya sp. (Hindu Rope)
Hoya carnosa
Lilium longiflorum
Papaya
Peperomia spp.
Peperomia obtusifolia
Pigmy Date Palm (injurious to roots as a drench)
Pilea spp.
Rose
Saintpaulia spp.

* Trade Name

Scindapsus spp.
Stephanotis spp.
Violet

DIBROM* (naled)
Chrysanthemum (var. "Pink Champagne")
Poinsettia
Rose (var. "White Butterfly" and "Golden Rapture")

DIMECRON* (phosphamidon)
Ageratum spp.
Begonia spp.
Chrysanthemum
Cineraria spp.
Coleus spp.
Ferns (no specific identification)
Lilium longiflorum
Primula spp.
Rochea coccinea

DYLOX* (trichlorfon)
Ardisia spp.
Brassaia actinophylla (Schefflera)
Carnation
Chrysanthemum
Dracaena godseffiana (Gold Dust Plant)
Nephrolepis exaltata (Florida Ruffle Fern)
Saintpaulia ionantha (African Violet)
Syngonium podophyllum (var. "Emerald Gem" and "Green Gold") (Nepthytis)

FUNDAL* or **GALECRON*** (chlordimeform)
Aster (var. "Dwarf Border")
Celosia (var. "Gladiator")
Carnation
Chrysanthemum
Marigold (var. "Petite Orange")
Pansy (var. "Trimardeau")
Zinnia (var. "Dwarf Mexican")

GUTHION* (azinphos-methyl)
Bromeliaceae (no specific identification)
Rose (var. "Roselandia" and "Juletide")

KELTHANE* (dicofol)
Anthurium spp.
Anthurium scherzerianum
Asparagus plumosus
Begonia spp.
Beloperone spp.
Brassaia actinophylla (Schefflera)
Brunfelsia spp.
Chamaedorea elegans (Neanthe Bella Palm)
Chrysanthemum
Cissus spp.
Cissus antartica (Kangaroo Vine)
Codiaeum sp. (Croton)
Collinia elegans
Cordyline sp. (Ti Plant)
Cyclamen spp.
Dianthus spp.
Epiphyllum spp.
Euphorbia
Gardenia jasminoides
Gloxinia
Hedera spp.
Hibiscus spp.

Hibiscus sp. cv. "laterita"
Kalanchoe sp. cv. "Korall"
Peperomia spp.
Poinsettia
Rhoicissus rhomboidea
Rose
Saintpaulia spp.
Schlumbergera gaertneri
Scindapsus sp. (Pothos)
Seedlings (no specific identification)
Sinningia spp.
Stephanotis spp.
Streptocarpus (injured by aerosols)
Sweet Pea

LANNATE* or **NUDRIN*** (methomyl)
Brassaia actinophylla (Schefflera)
Chrysanthemum
Dracaena godseffiana (Gold Dust Plant)
Peperomia obtusifolia
Pilea cadierei
Rose (var. "Bridal Pink")
Syngonium podophyllum (var. "Emerald Gem") (Nepthytis)

LINDANE*
Acalypha hispida
Achimenes longiflora
Adiantum cuneatum (Maidenhair fern)
Aeschynanthus lobbianus
Ampelopsis heterophylla (injured by aerosols)
Anemone spp.
Anthurium spp.
Aphelandra sp. (Zebra Plant)
Aralia spp.
Asparagus plumosus
Bouvardia spp.
Brunfelsia spp.
Calceolaria spp.
Carnation
Cissus antartica (Kangaroo Vine)
Cyclamen spp.
Dianthus spp.
Dizygotheca elegantissima (False Aralia)
Ficus pumila
Freesia spp.
Fuchsia spp.
Gardenia spp.
Gerbera spp.
Gerbera jamesonii
Gloxinia
Hedera helix
Hibiscus spp.
Hibiscus rosa-sinensis
Hydrangea spp.
Iris spp.
Kalanchoe spp.
Lathyrus spp.
Mathiola spp.
Monstera deliciosa
Narcissus spp.
Pelargonium spp.
Poinsettia
Primula spp.
Rhoeo spp.

Rhoicissus spp.
Rhoicissus rhomboidea
Rose
Saintpaulia spp.
Seedlings (injured by aerosols - no specific identification)
Sinningia spp.
Spathiphyllum spp.
Stephanotis
Tulip

LORSBAN* (chlorpyrifos)

Aphelandra squarrosa (Zebra Plant)
Brassaia actinophylla (Schefflers)
Chrysanthemum (var. "Nob Hill")
Nephrolepis exaltata (Florida Ruffle Fern)
Tolmiea menziesii (Piggy Back Plant)

MALATHION*

Adiantum spp.
Adiantum cuneatum
Anthurium spp.
Anthurium scherzerianum
Antirrhinum spp.
Aralia spp.
Asparagus plumosus
Asparagus sprengeri
Aster spp.
Begonia spp.
Brassaia actinophylla (Schefflera)
Brunfelsia spp.
Cacti (no specific identification)
Camellia spp.
Carnation
Cassia bicapsularis
Chenopodium amaranticolor
Chrysanthemum
Cissus antartica (Kangaroo Vine)
Cocculus laurifolius
Codonopsis spp.
Crassula spp.
Cyclamen spp.
Cyrtopodium spp. (injured by aerosols)
Dahlia spp.
Dianthus spp.
Dieffenbachia exotica
Echeveria elegans
Echeveria harmisii
Euphorbia spp.
Euphorbia pulcherrima
Feijoa sellowiana
Ferns (no specific identification)
Ficus spp.
Ficus carica
Ficus cyathistipula
Ficus diversifolia
Ficus pumila
Fuchsia spp.
Gardenia spp.
Gardenia jasminoides
Gerbera spp.
Gesneriaceae (no specific identification)
Gloxinia
Hedera spp.
Hibiscus rosa-sinensis

Hydrangea spp.
Ilex rotunda
Impatiens spp.
Kalanchoe spp.
Lilium longiflorum
Mathiola spp. (injured by aerosols)
Nephrolepis exaltata (Florida Ruffle Fern)
Orchids (no specific identification)
Peperomia spp.
Petunia spp.
Philodendron "friedrichstahli"
Pilea spp.
Pilea cadierei
Poinsettia (injurious to bracts of "San Diego")
Primula spp.
Rieger Begonia
Reinwardtia trigyna
Rochea coccinea
Rose
Saintpaulia spp.
Schlumbergera gaertneri
Scindapsus aureus (var. "Marble Queen")
Sinningia spp. (injured by aerosols)
Syngonium podophyllum (var. "Green Gold" and "Emerald Gem") (Nephthytis)

MARLATE* (methoxychlor)

Chrysanthemum (var. "Iceberg", "Mefos" and "Winter Carnival")

METALDEHYDE*

Cattleya spp.
Ferns (no specific identification)
Gerbera spp.
Phalaenopsis spp.

META-SYSTOX-R* (oxydemeton-methyl)

Achimenes longiflora
Adiantum cuneatum (Maidenhair fern)
Aeschyanthus lobbianus
Anthurium scherzerianum
Aralia spp.
Brassaia actinophylla (Schefflera)
Carnation
Chrysanthemum (var. "Balcombe", "Perfection", "Christmas Greetings", "Friendly Rival", "Galaxy", "Golden Balcombe", "Harlequin", "Hi-Fi", "Hurricane", "Iceberg", "The Minstrels", "Moonbeam", "Pennant", "Princess Anne", "Revelry", "Silver-smith", "Taffeta", "Yellow Fred Shoemsmith", "Whitecap" and injurious to blossoms of "Nob Hill")
Colanthe
Echeveria elegans
Echeveria harmisii
Euphorbia pulcherrima (Poinsettia)
Euphorbia splendens
Ferns (no specific identification)
Freesia spp.
Fuchsia spp.
Gerbera jamesonii
Hedera spp.
Lilium longiflorum
Nerium spp.
Orchids (no specific identification)
Pelargonium hortorum (Geranium)
Phragmipedium spp.

Rieger Begonia
Rochea spp.
Stanhopea spp.
Zinnia spp.

MORESTAN* (oxythioquinox)

Aphelandra squarrosa (Zebra Plant)
Aralia spp.
Crassula arborescens
Fuchsia spp. (injurious to blossoms)
Hydrangea spp.
Impatiens spp. (injurious to blossoms)
Kalanchoe spp.
Nicotiana spp.
Pelargonium hortorum
Poinsettia (injurious to the bracts of "Annette Hegg")
Rose
Sweet Pea

NICOTINE SULFATE*

Spray:
Acalypha hispida
Adiantum spp.
Anthurium spp.
Antirrhinum spp.
Asparagus plumosus
Aster spp.
Astilbe spp.
Carnation
Chrysanthemum
Chrysanthemum indicum
Cissus antartica (Kangaroo Vine)
Crassula spp.
Cyclamen spp.
Dianthus spp.
Fatsia japonica
Ferns (no specific identification)
Gardenia spp.
Gladiolus spp.
Gloxinia
Hedera spp.
Kalanchoe spp.
Nerium spp.
Primula spp.
Saintpaulia spp.
Salvia spp.
Senecio spp.
Sinningia spp.
Streptocarpus spp.
Aerosols injurious to foliage of:
Cineraria spp.
Hydrangea spp.
Impatiens spp.
Mimosa spp.
Tulip
Aerosols injurious to blossoms of:
Snapdragon
Geranium

OMITE* (propargite)

Aphelandra squarrosa (Zebra Plant)
Brassaia actinophylla (Schefflera)
Carnation (injurious to blossoms)
Chrysanthemum (injurious to the blossoms of var. "Nob Hill", "White Anne", "Deep Snow Pink" and "Orange Bowl")

Collinia elegans
Dieffenbachia exotica
Nephrolepis exaltata (Florida Ruffle Fern)
Peperomia spp.
Peperomia obtusifolia
Poinsettia (injurious to bracts of "San Diego")
Scindapsus spp.
Scindapsus aureus

ORTHENE* (acephate)

Brassaia actinophylla (Schefflera)
Carnation
Chamaedorea elegans
Chrysanthemum (injurious to foliage of var. BGA "Mountain Sun" and "Always Pink"; injurious to blossoms of var. "Nob Hill" and BGA "Always Pink", "Charm", "Illini Hot Pink", "Bridesmaid" and "Mountain Sun")
Maranta spp.
Nephrolepis exaltata (Florida Ruffle Fern)
Saintpaulia spp. (injurious to blossoms)
Geranium (var. "Yours Turly", "Miles Standish", "Red Perfection", "Sincerity", "Snow Mass", "Dawn", "Easham", "White Mountain" and "Minnetonka")
Poinsettia (injurious to bracts of var. "Paul Mikkelsen" and "Mikkelwhite")

PARATHION*

Acalypha spp.
Acalypha hispida
Adiantum spp.
Aeonium decorum
Aeonium deltoidea
Aeonium haworthii
Aeonium tournefortii
Ageratum spp.
Aglaonema spp.
Alternanthera spp.
Ampelopsis heterophylla elegans
Anemone spp.
Anthurium spp.
Anthurium scherzerianum
Aphelandra spp.
Aquilegia spp.
Aralia spp.
Asparagus plumosus
Aster spp.
Aucuba spp.
Azalea spp.
Begonia spp.
Beloperone guttata
Bougainvillea spp.
Bouvardia spp.
Bromeliaceae (no specific identification)
Brunfelsia spp.
Calceolaria spp.
Callistephus chinensis
Carnation
Chinese evergreen
Chrysanthemum
Chrysanthemum indicum
Cissus antartica
Codiaeum spp.
Coleus spp.
Crassula spp.

Crassula arborescens
Crassula multicava
Cyclamen spp.
Dahlia spp.
Dianthus spp.
Dieffenbachia picta
Dizygotheca elegantissima
Drejerella guttata
Echeveria spp.
Erica spp.
Euphorbia spp.
Euphorbia fulgens
Euphorbia pulcherrima
 Fatsyhedera Ivy
 Ferns (no specific identification)
Ficus spp.
Ficus benjamina
Ficus carica
Ficus elastica (var. "Decora")
Ficus pumila
Forsythia spp.
Freesia spp.
Gardenia spp.
Gardenia jasminoides
Gladiolus spp.
 Gloxinia
Gynura spp.
Hedera spp.
Hedera helix
Hibiscus rosa-sinensis
Hydrangea spp.
Ilex rotunda
Impatiens spp.
Jasminum sambac
Kalanchoe spp.
Laburnum spp.
Lathyrus spp.
 Lilac
Lilium longiflorum
Lilium spp.
Lotus bertholetii
Lupinus spp.
Mathiola incana
Monstera spp.
Moschosma riparia
 Nasturtium
Nephrolepis cordifolia
Nephrolepis exaltata
 Orchids (injured by aerosols)
Pachyphytum spp.
Pelargonium spp. (Geranium)
Peperomia spp.
Pereskia spp.
Phalaenopsis spp.
Philodendron spp.
Philodendron selloum
Philodendron mendum
Pilea cadierei
 Poinsettia
Polyscias guilfoylei
 Pothos
Primula spp.
Pteris spp.
Rhoicissus rhomboidea

Rieger begonia
Rochea spp.
Rochea coccinea
 Rose
Saintpaulia spp.
Sanchezia spp.
Sansevieria spp.
Schlumbergera gaertneri
Scindapsus spp.
Scindapsus aureus
Sempervivum tectorum
Sinningia spp.
Spathiphyllum spp.
Stephanotis spp.
 Stocks
Streptocarpus spp.
Streptosolen jamesonii
 Succulents (no specific identification)
Syngonium spp.
Tibouchina spp.
Tolmiea menziesii

PENTAC*

Chrysanthemum (injurious to blossoms of var. "Nob Hill")
 Gloxinia
Kalanchoe sp. cv. "Korall"
Kalanchoe sp. cv. "Rotkappchen"

PHOSVEL* (leptophos)

Brassaia actinophylla (Schefflera)
Nephrolepis exaltata (Florida Ruffle Fern)
Peperomia obtusifolia
Peperomia obtusifolia variegata

PIRIMOR (pirimicarb)

Bellis spp.
Chrysanthemum (injurious to foliage of var. BGA "Wildfire", "Always Pink", "Charm", "Illini Hot Pink", "Ice Cap" and "Gold Cap": injurious to blossoms of BGA "Always Pink", "Illini Hot Pink" and "Nob Hill")

Note: *Chrysanthemum* varieties not injured by Pirimor are given in Manufacturer's technical data sheet and in Florogram, Vol. VIII, No. 1, Jan.-Feb. 1975.

Delphinium
Lilium longiflorum (injurious as a soil drench)

PLICTRAN*

Avocado
 Carnation
Chrysanthemum (injurious to foliage of var. "Nob Hill"; injurious to blossoms of var. "Snow Pink", "Nob Hill", "Orange Bowl", "Yellow Delaware", "Hostess" and "Yellow Bonnie Jean")
Cissus rhombifolia (Grape Ivy)
Crassula oleracea (Jade Plant)
Croton (hybrid)
Iresine herbstii
Kalanchoe diagamontiana (Mother of Thousands)
Kalanchoe sp. cv. "Korall"
Kalanchoe sp. cv. "Rotkappchen"
 Orange (ornamental)
 Poinsettia (injurious to bracts of "Paul Mikkelsen", "San Diego" and "White Cloud"; injurious to bracts and foliage of var. "Red Velvet" and "Annette Hegg")

- Rose (damage to new growth, calyx and flower petal reported for following varieties: "American Beauty", "Bridal Pink", "Cara Mia", "Coed", "Forever Yours", "Garnet", "Golden Wave", "Jack Frost", "Junior Bridesmaid", "Mary De Vor", "Seventeen", "Tropicana", "Woburn Abbey", "Zorina")
- PYRENONE*** (pyrethrins)
Poinsettia (injurious to bracts of var. "Paul Mikkelsen" and "Mikkelwhite")
- RESMETHRIN*** (SBP-1382)
Chrysanthemum (injurious to blossoms of var. "Shoesmith", "Nob Hill", "Neptune", "Deep Snow Pink", "Orange Bowl" and "Marguerita")
Poinsettia (injurious to bracts of var. "Paul Mikkelsen" and "Mikkelwhite")
Red Calceolaria
- SEVIN*** (carbaryl)
Adiantum sp. (Maidenhair fern)
Parthenocissus sp. (Boston Ivy)
Brassaia actinophylla (Schefflera)
Hedera helix (English Ivy)
Nephrolepis exaltata (Florida Ruffle Fern)
Peperomia spp.
Pilea cadierei (Aluminum Plant)
Syngonium sp. (Nephtytis)
Virginia creeper
- SULFOTEPP***
Carnation
Poinsettia (injurious to bracts)
Rose
Vinca spp.
- SYSTOX*** (demeton)
Adiantum cuneatum
Alternanthera spp.
Amaryllis belladonna
Anthurium spp.
Asparagus fern
Azalea spp.
Begonia spp.
Begonia coccinea
Begonia foliosa
Begonia semperflorens
Camellia japonica
Camellia sasangua
Cattleya spp.
Chrysanthemum
Chrysanthemum indicum
Cibotium fern
Cineraria spp.
Coleus blumei verschaaffeltii
Cyclamen spp.
Euphorbia spp.
Euphorbia fulgens
Euphorbia milii
Euphorbia pulcherrima
Fern (no specific identification)
Ficus carica
Fittonia verschaaffeltii "argyroneura"
Fuchsia hybrida
Gardenia jasminoides
Gardenia veitchii
Geranium (injurious as a soil drench)
Gerbera jamesonii
- Helxine soleirolii*
Hibiscus rosa-sinensis
Hydrangea macrophylla
Ilex rotunda
Impatiens spp.
Kalanchoe spp.
Lilium longiflorum (injurious to foliage as a spray and as a soil drench)
Monstera spp.
Poinsettia
Saintpaulia spp.
Saintpaulia ionantha
Scindapsus spp.
Spironema fragrans
Violet
- TEDION*** (tetradifon)
Acalypha spp.
Anemone spp.
Anthurium spp.
Begonia spp.
Brassaia actinophylla (Schefflera)
Brunfelsia spp.
Calceolaria spp.
Chrysanthemum
Cineraria spp.
Cissus spp.
Cissus antartica (Kangaroo Vine)
Cyclamen spp.
Cypripedium spp. (injured by aerosols)
Dahlia spp. (injured by aerosols)
Dianthus spp.
Euphorbia spp.
Ficus diversifolia
Freesia spp.
Gardenia spp.
Gladiolus spp.
Hibiscus spp.
Hydrangea spp.
Kalanchoe spp.
Lathyrus spp.
Mathiola spp. (injured by aerosols)
Pelargonium spp.
Primula spp. (injured by aerosols)
Rochea spp.
Rose
Schlumbergera gaertneri
Senecio spp.
Sinningia spp. (injured by aerosols)
Stephanotis
- THIODAN*** (endosulfan)
Anthurium spp.
Chrysanthemum (var. "Bonaffon Deluxe", "Fred Shoesmith", "White Knight")
Cissus antartica
Crepe Myrtle
Crossandra spp.
Gardenia spp.
Gardenia jasminoides
Gloxinia
Poinsettia (injurious to the bracts of var. "Paul Mikkelsen" and "Mikkelwhite")
Rhoicissus rhomboidea
Rose
Saintpaulia spp.

Scindapsus spp.
Scindapsus aureus

TEMIK* (aldicarb)
Chrysanthemum (pot mums var. "White Carnival" and "Princess Anne")

Freesia spp.
Rieger begonia
Vinca major

VAPONA* (dichlorvos)

Ageratum
Aster
Chrysanthemum (var. "Dwan Star", "Shasta"
"Taffeta", "Pink Champagne", "Nightingale")

Cissus antartica
Poinsettia (injurious to bracts)
Rose
Snapdragon and *Tradescantia* spp.

VYDATE* (oxamyl)
Brassaia actinophylla (Schefflera)
Dracaena godseffiana (Gold Dust Plant)
Podocarpus macrophylla

ZECTRAN* (mexacarbate)
Brassaia actinophylla (Schefflera)

Cape Chestnut
Geraldton waxflower

Ferns:

Adiantum hispidulum
Adiantum decorum
Adiantum farleyense [sic]
Adiantum coucatum [sic]
Asplenium bulbiferum
Diplazium esculentum
Dryopteris dentata
Hisplenium quercum [sic]
Nemia phyllifidis [sic]
Nephrolepis exaltata bostoniensis
Pityrogramma x-hybrida
Pteris vittata
Pteris cretica
Tectaria cicutaria

High rates of chemical may damage new growth of roses and phlox.

PESTICIDE COMBINATIONS

DITHIO plus TEDION

Cattleya orchids

DYLOX plus META-SYSTOX-R

Brassaia actinophylla (Schefflera)
Nephrolepis exaltata (Florida Ruffle Fern)
Podocarpus macrophylla

SOURCES

Florida Flower Growers - Florida Cooperative Extension Service

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Flower & Nursery Report - University of California, May 1974.

Greenhouse Notes - The Pennsylvania State University, December 1975, "Phytotoxicity of Insecticides to Foliage Plants", D.E. Short and D.P. Driggers, presented orally at the Florida Entomological Society 10/28/71.

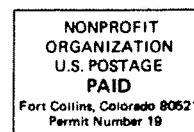
Nova Scotia Horticulture and Biology Service Bulletin - Circular "E 71-2".

Ornamental Plants Entomologists Newsletter [OPEN] - Western Washington Research & Extension Center

"The Sensitivity of Ornamental Plants to Insecticides and Acaracides" by John Forsyth and Joyce Maynard. Commonwealth Agricultural Bureau - Bucks, England.

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