

**MONITORING CALENDAR**  
**for insect pests of ornamental plants**  
**in the Okanagan Valley, British Columbia**

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The information is based on field data from the past 10 years in urban areas and nurseries.  
Please make adjustments for local conditions and changes in weather conditions.

<b>Month: MARCH</b>		
<b>Pest</b>	<b>Stage to monitor</b>	<b>Host - Plant</b>
<b>Sucking insects</b>		
Aphids	Nymphs	Viburnum (cranberry)
Pear psylla	Eggs	Pyrus (pear)
Cottony maple scale	Immature females	Acer (maple)
European elm scale	Immature females	Ulmus (elm)
Scale	Immature females	Tilia (linden)
Rust mites	Nymphs	Pyrus (pear)
<b>Chewing insects</b>		
Boxelder bug	Adults	Acer (maple)
<b>Gall formers</b>		
Adelgids	Immature females	Picea (spruce)
Blister mites	Nymphs	Acer (maple), Juglans (walnut)

*Monitoring calendar for insect pests of ornamental plants in the Okanagan Valley*

<b>Month:</b>	<b>APRIL</b>	
<b>Pest</b>	<b>Stage to monitor</b>	<b>Host - Plant</b>
<b>Sucking insects</b>		
Aphids	Eggs and nymphs	Acer (maple), Betula (birch), Cornus (dogwood), Cotoneaster (cotoneaster), Crataegus (hawthorn), Malus (apple and crabapple), Prunus (flowering plum), Ribes (currant), Rosa (rose), Tilia (linden), Ulmus (elm), Viburnum (cranberry)
Aphids		
Aphids		
Green ash leafcurling aphid	Nymphs	Fraxinus (green ash)
Bark aphid	Nymphs	Pinus (pine)
Pear psylla	Eggs and nymphs	Pyrus (pear)
Boxwood psyllid	Eggs and nymphs	Buxus (boxwood)
Psyllids	Eggs and nymphs	Crataegus (hawthorn)
Juniper scale	Mature females	Juniperus (juniper)
Pine needle scale	Immature females	Pinus (pine)
Oystershell and Lecanium scales	Immature females	Carpinus (hornbeam), Crataegus (hawthorn), Fraxinus (green ash), Malus (apple)
Oystershell and Lecanium scales		Prunus (flowering plum), Quercus (oak), Tilia (linden)
European Elm Scale	Nymphs	Ulmus (elm)
European red mites	Eggs	Malus (apple and crabapple), Sorbus (mountain ash)
Spruce spider mites	Eggs	Abies (fir), Juniperus (juniper), Picea (spruce), Pseudotsuga (Douglas fir), Taxus (yew), Thuja (arborvitae)
Spruce spider mites		
<b>Chewing insects</b>		
Birch leafminer	Adults	Betula (birch)
Lilac leafminer	Adults	Syringa (lilac)
Spruce Budworm	Larvae	Abies (fir), Picea (spruce), Pseudotsuga (Douglas Fir)
Boxelder bug	Adults	Acer (maple)
Caterpillars	Eggs	Malus (apple), Prunus (flowering plum), Rosa (rose), Tilia (linden)
Rose curculio	Adults	Rosa (rose)
Root weevils	Adults	Rhododendron (rhododendron and azalae), Taxus (yew), Thuja (arborvitae)
<b>Gall formers</b>		
Adelgids	Adults	Abies (fir), Picea (spruce), Pinus (pine), Pseudotsuga (Douglas Fir)
Honeylocust pod gall midge	Adults and eggs	Gleditsia (honeylocust)
Blister mites	Nymphs	Sorbus (mountain ash)
<b>Borers</b>		
White pine weevil	Adults	Picea (spruce)

Month:	MAY	
Pest	Stage to monitor	Host - Plant
<b>Sucking insects</b>		
Aphids	Nymphs	Acer (maple), Betula (birch), Caragana (pea tree), Cornus (dogwood), Cotoneaster, Crataegus (hawthorn), Fagus (beech), Juglans (walnut), Lonicera (honeysuckle), Malus (apple and crabapple), Picea (spruce), Potentilla (potentilla), Prunus (flowering plum), Quercus (oaks), Ribes (currant), Rosa (rose), Salix (willow), Spiraea (spirea), Tilia (linden), Ulmus (elm)
Green ash leafcurling aphid	Nymphs	Fraxinus (green ash)
Bark aphid	Eggs and nymphs	Pinus (pine)
Oak leaf phylloxera	Adults, eggs and nymphs	Quercus (oak)
Pear psylla	Nymphs	Pyrus (pear)
Psyllids	Nymphs	Buxus (boxwood), Crataegus (hawthorn)
Leafhoppers	Adults	Rosa (rose)
Spittlebugs	Nymphs	Forsythia (forsythia), Potentilla (potentilla), Rosa (rose), Spiraea (spirea)
Spittlebugs		Junipers (juniper), Pinus (pine)
Spruce spider mites	Adults and nymphs	Abies (fir), Juniperus (juniper), Picea (spruce), Pseudotsuga (Douglas fir), Taxus (yew), Thuya (arborvitae)
Spruce spider mites		
<b>Chewing insects</b>		
Thrips	Adults	Prunus (flowering plum), Rosa (rose)
Birch Leafminer	Larvae	Betula (birch)
Lilac leafminer	Larvae	Syringa (lilac)
Poplar leafminer	Larvae	Populus (poplar, aspen)
Boxelder bug	Adults	Acer (maple)
Spruce Budworm	Larvae	Abies (fir), Picea (spruce), Pinus (pine), Pseudotsuga (Douglas Fir)
Tussock moth	Larvae	Abies (fir), Pseudotsuga (Douglas fir)
Tent caterpillar	Larvae	Acer (maple), Malus (apple and crabapple)
Caterpillars	Larvae	Mahonia (Oregon grape), Malus (apple and crabapple), Prunus (flowering plum), Rosa (rose), Sambucus (golden elder), Spiraea (spirea), Syringa (lilac), Tilia (linden)
Caterpillars		
Sawflies	Larvae	Ribes (currant and gooseberry), Rosa (rose), Rhododendron (rhododendron and azalae)
Lacebug	Nymphs	Rhododendron (rhododendron and azalae)
Rose curculio	Adults	Rosa (rose)
Root weevils	Adults	Rhododendron (rhododendron and azalae), Taxus (yew), Thuya (arborvitae)

*Monitoring calendar for insect pests of ornamental plants in the Okanagan Valley*

<b>Month: MAY</b>		
<b>Pest</b>	<b>Stage to monitor</b>	<b>Host - Plant</b>
<b>Gall formers</b>		
Adelgids	Eggs and nymphs	Abies (fir), Picea (spruce), Pinus (pine), Pseudotsuga (Douglas Fir)
Honeylocust pod gall midge	Adults and eggs	Gleditsia (honeylocust)
<b>Borers</b>		
White pine weevil	Adults and larvae	Picea (spruce)
Pine bark beetle	Adults	Pinus (pine)
Shothole borer	Adults	Sorbus (mountain ash)

Month:	JUNE	
Pest	Stage to monitor	Host - Plant
<b>Sucking insects</b>		
Aphids	Nymphs	Acer (maple), Betula (birch), Caragana (peatree), Cornus (dogwood), Cotoneaster, Crataegus (hawthorn), Fagus (beech), Juglans (walnut), Lonicera (honeysuckle), Malus (apple and crabapple), Picea (spruce), Potentilla (potentilla), Prunus (flowering plum), Quercus (oaks), Ribes (currant and gooseberry), Rosa (rose), Salix (willow), Spiraea (spirea), Tilia (linden), Ulmus (elm)
Green ash leafcurling aphid	Nymphs	Fraxinus (green ash)
Petiole gall aphid	Nymphs	Populus (poplar and aspen)
Oak leaf phylloxera	Adults, eggs and nymphs	Quercus (oak)
Pear psylla	Adults and nymphs	Pyrus (pear)
Leafhoppers	Adults	Malus (apple and crabapple), Parthenocissus (virginia creeper), Rosa (rose)
Spittlebugs	Nymphs	Forsythia (forsythia), Potentilla (potentilla), Rosa (rose), Spiraea (spirea)
Spittlebugs		Junipers (juniper), Pinus (pine)
Juniper scale	Adults and nymphs	Juniperus (juniper)
Pine needle scale	Adults and nymphs	Pinus (pine)
Fletcher scale	Adults and nymphs	Taxus (yew), Thuya (arborvitae)
European elm scale	Adults and nymphs	Ulmus (elm)
Two-spotted spider mites	Adults and nymphs	Caragana (peatree), Robinia (locust), Rosa (rose), Salix (willow), Spiraea (spirea)
Spruce spider mites	Nymphs and adults	Abies (fir), Juniperus (juniper), Picea (spruce), Pseudotsuga (Douglas fir), Taxus (yew), Thuya (arborvitae)
Spruce spider mites		
Rust mites	Adults and nymphs	Pyrus (pear)

Month:	JUNE	
Pest	Stage to monitor	Host - Plant
<b>Chewing insects</b>		
Thrips	Adults	Prunus (flowering plum), Rosa (rose)
Poplar leafminer	Larvae	Populus (poplar, aspen)
Tussock moth	Adults and larvae	Abies (fir), Pseudotsuga (Douglas fir)
Tent caterpillar	Larvae	Acer (maple), Malus (apple and crabapple)
Barberry looper	Larvae	Mahonia (oregon grape)
Caterpillars	Larvae	Malus (apple and crabapple), Prunus (flowering plum), Rosa (rose), Sambucus (golden elder), Spiraea (spirea), Syringa (lilac), Tilia (linden)
Spruce needle miners	Larvae	Picea (spruce)
Apple-and-thorn skeletonizers	Larvae	Malus (apple and crabapple)
Codling moth	Larvae	Malus (apple and crabapple)
Sawflies	Larvae	Picea (spruce), Populus (poplar and aspen), Ribes (currant and gooseberry), Rosa (rose)
Slugs	Larvae	Cotoneaster (cotoneaster), Crataegus (hawthorn), Pyrus (pear), Rosa (rose), Rhododendron (asalea, rhododendron)T
Lacebug	Adults and nymphs	Rhododendron (asalea, rhododendron)T
Cottonwood leaf beetle	Larvae	Populus (poplar and aspen), Salix (willow)
Elm leaf beetle	Larvae	Ulmus (elm)
Root weevils	Adults and larvae	Rhododendron (rhododendron and azalea), Taxus (yew), Thuja (arborvitae)
<b>Gall formers</b>		
Honeylocust pod gall midge	Adults and eggs	Gleditsia (honeylocust)
Blister mites	Nymphs	Juglans (walnut)
<b>Borers</b>		
Maple twig borer	Adults and nymphs	Acer (maple)
Bronze birch borer	Adults and nymphs	Betula (birch)
Pine shoot moth	Adults and nymphs	Pinus (pine)
White pine weevil	Larvae	Picea (spruce)
Pine bark beetle	Adults and nymphs	Pinus (pine)
Shothole borer	Adults and nymphs	Prunus (flowering plum), Sorbus (mountain ash)
Sequoia pitch moth	Adults and nymphs	Pinus (pine)

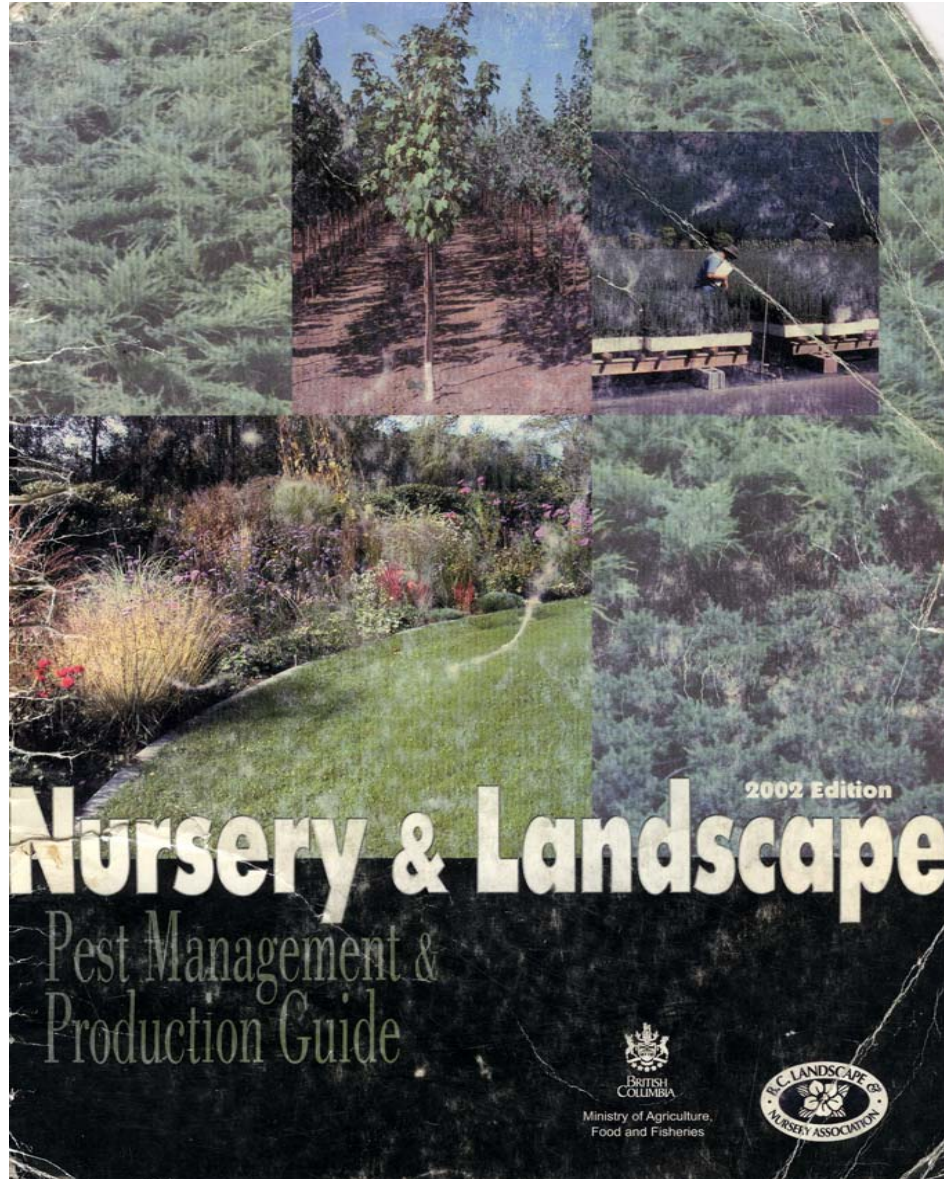
Month:	JULY	
Pest	Stage to monitor	Host - Plant
<b>Sucking insects</b>		
Aphids	Nymphs	Acer (maple), Betula (birch), Cotoneaster (cotoconeaster), Crataegus (hawthorn), Fagus (beech), Juglans (walnut), Lonicera (honeysuckle), Populus (poplar, aspen)
Aphids		Potentilla (potentilla), Prunus (flowering plum), Quercus (oaks), Robinia (locust)
Aphids		Rosa (rose), Salix (willow), Spiraea (spirea), Tilia (linden), Ulmus (elm)
Oak leaf phylloxera	Adults, eggs and nymphs	Quercus (oak)
Petiole gall aphid	Nymphs	Populus (poplar and aspen)
Pear psylla	Adults and nymphs	Pyrus (pear)
Leafhoppers	Adults	Rosa (rose)
Lacebug	Adults and nymphs	Rhododendron (rhododendron and azalea)
Juniper scale	Adults and nymphs	Juniperus (juniper)
Fletcher scale	Adults and nymphs	Taxus (yew), Thuya (arborvitae)
Spruce bud scale	Adults and nymphs	Picea (spruce)
European elm scale	Adults and nymphs	Ulmus (elm)
Cottony maple scale	Adults and nymphs	Acer (maple)
Lecanium scale	Adults and nymphs	Carpinus (hornbeam), Fraxinus (green ash), Quercus (oak), Tilia (linden)
Oystershell scale	Adults and nymphs	Crataegus (hawthorn), Fraxinus (green ash), Quercus (oak), Tilia (linden)
Two-spotted spider mites	Adults and nymphs	Caragana (pea tree), Malus (apple and crabapple), Populus (poplar and aspen),
Two-spotted spider mites		Potentilla (potentilla), Prunus (flowering plum), Robinia (locust), Rosa (rose),
Two-spotted spider mites		Salix (willow), Spiraea (spirea), Viburnum (cranberry)
Spruce spider mites	Adults and nymphs	Abies (fir), Juniperus (juniper), Picea (spruce), Pseudotsuga (Douglas fir),
Spruce spider mites		Taxus (yew), Thuya (arborvitae)
Rust mites	Adults and nymphs	Pyrus (pear)

Month:	JULY	
Pest	Stage to monitor	Host - Plant
<b>Chewing insects</b>		
Caterpillars	Larvae	Rosa (rose), Sambucus (golden elder)
Fall webworm	Eggs and larvae	Acer (maple), Betula (birch), Crataegus (hawthorn), Fraxinus (green ash), Juglans (walnut), Malus (apple and crabapple), Populus (poplar and aspen), Prunus (flowering plum), Quercus (oak), Sorbus (mountain ash), Syringa (lilac), Tilia (linden), Ulmus (elm)
Walnut husk fly	Adults and larvae	Juglans (walnut)
Sawflies	Larvae	Picea (spruce), Populus (poplar and aspen), Ribes (currant and gooseberry)
Slugs	Larvae	Cotoneaster (cotoneaster), Crataegus (hawthorn), Prunus (flowering plum), Pyrus (pear)
Cottonwood leaf beetle	Larvae	Populus (poplar and aspen), Salix (willow)
Elm leaf beetle	Larvae	Ulmus (elm)
Root weevils	Adults	Rhododendron (rhododendron and azalea)
Codling moth	Adults and larvae	Malus (apple and crabapple)
<b>Gall formers</b>		
Honeylocust pod gall midge	Adults and eggs	Gleditsia (honeylocust)
<b>Borers</b>		
Maple twig borer	Adults and larvae	Acer (maple)
Bronze birch borer	Adults	Betula (birch)
Pine bark beetle	Adults	Pinus (pine)
Shothole borer	Adults	Sorbus (mountain ash)
Pine shoot moth	Adults and larvae	Pinus (pine)
Sequoia pitch moth	Adults and larvae	Pinus (pine)
Poplar borer	Adults and larvae	Populus (poplar and aspen)
Peach tree borer	Adults and larvae	Prunus (flowering plum)



Month:	AUGUST	
Pest	Stage to monitor	Host - Plant
<b>Sucking insects</b>		
Aphids	Nymphs	Acer (maple), Potentilla (potentilla), Prunus (flowering plum), Quercus (oak), Robinia (locust), Rosa (rose), Salix (willow), Spiraea (spirea), Tilia (linden)
Aphids		
Oak leaf phylloxera	Adults and nymphs	Quercus (oak)
Pear psylla	Adults and nymphs	Pyrus (pear)
Leafhoppers	Adults and nymphs	Salix (willow)
Lacebug	Adults and nymphs	Salix (willow)
Cottony maple scale	Nymphs	Acer (maple)
Two-spotted spider mites	Adults and nymphs	Caragana (peartree), Carpinus (hornbeam), Cotoneaster (cotoneaster), Gleditsia (honeylocust), Malus (apple and crabapple), Populus (poplar and aspen), Potentilla (potentilla), Prunus (flowering plum), Robinia (locust), Rosa (rose), Salix (willow), Sorbus (mountain ash), Spiraea (spirea), Viburnum (cranberry)
Two-spotted spider mites		
Two-spotted spider mites		
Two-spotted spider mites		
Rust mites	Adults and nymphs	Malus (apple and crabapple), Picea (spruce), Prunus (flowering plum), Pyrus (pear)
<b>Chewing insects</b>		
Apple-and-thorn skeletonizers	Larvae	Malus (apple and crabapple)
Fall webworm	Larvae	Acer (maple), Betula (birch), Crataegus (hawthorn), Fraxinus (green ash), Juglans (walnut), Malus (apple and crabapple), Populus (poplar and aspen), Prunus (flowering plum), Quercus (oak), Sorbus (mountain ash), Syring (lilac), Tilia (linden), Ulmus (elm)
Fall webworm		
Fall webworm		
Fall webworm		
Walnut husk fly	Adults and nymphs	Juglans (walnut)
Cottonwood leaf beetle	Adults and nymphs	Populus (poplar and aspen), Salix (willow)
Elm leaf beetle	Adults and nymphs	Ulmus (elm)
Boxelder bug	Adults and nymphs	Acer (maple)
Slugs	Nymphs	Prunus (flowering plum), Pyrus (pear)
Codling moth	Adults and larvae	Malus (apple and crabapple)
<b>Borers</b>		
Pine bark beetle	Adults and larvae	Pinus (pine)
Poplar borer	Adults and larvae	Populus (poplar and aspen)
Peach tree borer	Adults and larvae	Prunus (flowering plum)

<b>Months:</b>	<b>SEPTEMBER - OCTOBER</b>	
<b>Pest</b>	<b>Stage to monitor</b>	<b>Host - Plant</b>
<b>Sucking insects</b>		
Aphids	Adults and nymphs	Acer (maple), Cornus (dogwood), Fraxinus (green ash), Picea (spruce), Spiraea (spirea), Viburnum (cranberry)
Aphids		
Adelgids	Adults and nymphs	Picea (spruce), Pseudotsuga (Douglas fir)
Spider mites	Adults and nymphs	Malus (apple and crabapple), Sorbus (mountain ash), Spiraea (spirea)
Spruce spider mites	Adults and nymphs	Abies (fir), Juniperus (juniper), Picea (spruce), Pseudotsuga (Douglas fir), Taxus (yew), Thuja (arborvitae)
Spruce spider mites		
Rust mites	Adults and nymphs	Picea (spruce)
<b>Chewing insects</b>		
Fall webworm	Larvae	Populus (poplar and aspen), Prunus (flowering plum), Sorbus (mountain ash), Syringa (lilac)
Fall webworm		
Walnut husk fly	Adults and nymphs	Juglans (walnut)



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