

## Common Problems of Ornamental Trees in Prince George

What do you do when the largest investment in your yard has a problem? The first step is identification. Correct identification determines what, if anything you can or need to do about it. The following are the most common problems trees face in our area.

### Aphids



These soft bodied insects form clusters on new growth and cause distortion of leaves and stunted shoots. Aphids very rarely kill trees and most of the damage is cosmetic. Treatment can include a spray of water from a garden hose to knock aphids off. Repeat weekly, as aphid populations can rise rapidly. Avoid high nitrogen fertilizers around trees as this causes succulent new growth that aphids prefer. Also encourage beneficial insects in your yard by planting sweet pea, alyssum, bee balm or garden alliums which all encourage bugs that will eat aphids

### Black knot



This fungal infection causes thick, black, irregular swellings on twigs and branches. Dieback often occurs on affected branches past the "knot". Black Knot affects members of the cherry and plum families, including Mayday trees. Treatment includes pruning infected branches back at least 4-6" beyond the knot and sterilizing tools between cuts to avoid spreading the disease. Keeping trees healthy will not stop disease, but will reduce the chance of infection. To avoid Black Knot, plant resistant trees

### Bronze Birch Borer



Symptoms of this pest include dying tree tops, ridges in bark and "D" shaped exit holes. Borers start at the top of the tree and work their way down. The borer most commonly affects birches, but can on occasion affect poplars. Once a tree is infected, control is very difficult. Pruning out affected limbs can be attempted but because the borer usually infests old or stressed trees, the size of the tree makes this difficult. The best treatment for borers is preventative. Birches need plenty of supplemental water, especially in spring and late fall. Borers cannot survive in healthy trees.

## Cooley Spruce Gall Adelgids



Adelgids are insects that cause pinecone shaped galls on newly expanding buds. The galls are formed by the insect eating the plant sap. Adelgids do not kill trees, but can stunt branch growth and cause disfigurement to ornamental trees. Watch for gall formation in May and June. Remove and destroy galls as they appear. Adelgids can be treated with insecticidal soap in warm October weather to kill over wintering insects.

## Cottony Psyllids



Cottony psyllids cause curled/wilted “cauliflowered” leaves and premature leaf drop on members of the Ash family. It is the primary reason that the City does not recommend planting Black or Manchurian Ash species. Removal of infested trees is advised. Trees can be treated with Insecticidal soap if caught before the insect produces the cottony/waxy substance for protection.

## Drought Stress



Symptoms of drought stress include scorched, brown edges, or browning between leaf veins on deciduous trees. Drought stress on conifers can take up to two years to appear and shows as yellow, red, or purple needles. Drought stress may not kill a tree, but can make it susceptible to more serious secondary insects and disease infestations in following years. Watering slowly to a depth of 12” and mulching with organics is highly recommended. Even trees that are considered drought tolerant need regular watering (once a week) for the first year after planting.

## Frost or Sunscald



Sunscald occurs during cold, bright days in midwinter. Trees with thin bark are most susceptible. Damage shows on south facing branches and southwest sides of tree trunks. Bark in the affected area may initially turn red, orange, yellow or some other hue not consistent with normal bark colour. The bark may then crack, become mushy, or slough off. Newly planted trees, especially those not grown in our climate, show the most damage. To prevent sunscald, plant susceptible trees on the east side of buildings or wrap trunks with commercial tree wrap from October- April until trees have adapted to our climate (by thickening their bark), usually one or two winters. Ensuring trees are well watered into fall can help prevent sunscald damage. Trees affected by sunscald can recover over time, but may lose some vigor on the affected side.

## Herbicide



Trees that are planted in lawns that get treated with herbicide (e.g. Weed-n-Feed) can suffer damage. Since trees have the same structure as broadleaf weeds, they can react to herbicide like a big weed. Symptoms of herbicide damage include; twisting and distortion of foliage, leaf yellowing, black edges on leaves and in severe cases branch dieback. If you must treat your lawn follow a few simple rules. **Do not** treat under the canopy of the tree. **Do not** treat on windy days where herbicide drift can hit the tree. **Do not** use herbicide on very hot days as this can cause herbicide fumes which trees are very susceptible to. Since some trees are more vulnerable to herbicide damage than others, do your homework before using herbicides in your yard.

## Leaf Miners



Leaf miners are a fairly common, unwarranted concern. Leaf miners are larvae of many different insects that feed on plant tissue between leaf surfaces. Damage appears as brown blotches on leaves or serpentine like tunnels. Rarely lethal, the damage is just unsightly. The best treatment for leaf miners is preventative. Rake up fallen leaves under affected trees in the fall. Vigorously rake and disturb any existing mulch to expose and crush over wintering larvae. Add ¼" compost or mulch under tree canopy and water well.

## Leaf Miners on Cedars



Cedar leaf miners can be commonly mistaken for winter damage. As with deciduous trees, the cedar leaf miner is rarely lethal. Pruning out the brown tips before June is an effective treatment. Keeping cedars healthy and well watered is the best method to discourage miners.

## Mechanical Damage



Mechanical damage occurs in many ways. Weed eaters, ropes, and even strings of lights are examples that can all cause similar damage. Anything that either encircles the trunk tightly or cuts through the bark of the trunk can cause severe damage or even death to whole trees or parts of it (individual branches are the same structure as trunks). A tree feeds itself through the tissue right under the bark and if this layer is cut or choked, the tree cannot feed itself.

## Spindle Mites



Spindle mites are unsightly, but will go away without any intervention on our part. They are a natural occurrence, and are most common in Maples. The best way to avoid mite attacks is through tree health. Water during times of drought and fertilize if necessary.

## Terminal Weevil



Although properly called “White Pine Weevil”, this insect attacks the tops of spruce trees in Western Canada. Weevils do their damage in the spring, but the damage usually does not show until the top dies. This will not kill the whole tree, just the top. This can cause the tree to develop a forked top. If treatment is thought necessary for aesthetics it is best accomplished through pruning. The damaged top must be cut back to a healthy “whorl” of lateral branches. Choose the healthiest side branch and remove the rest. This remaining branch will straighten up to become a single top. If done early enough in the year, the “fix” will be obvious that same year.

## Woolly Aphids



Woolly Aphids are similar to common Aphids, except that their bodies are covered by waxy filaments giving them a “woolly” appearance. These waxy filaments hinder the effectiveness of insecticidal soaps. Other than that, treatment strategies are the same as for common Aphids (see above).