

### **Insect Control A**

A biological insecticide, *BtK*, sprayed in last week of May until the end of June, used to control defoliating caterpillars such as cankerworms, elm spanworms, gypsy moth caterpillars, forest tent caterpillars, ugly nest caterpillars, and spruce budworm. It is most often applied on many broadleaf, deciduous native trees. This bacteria is harmless to us and our loved ones, but deadly to pest caterpillars.

### **Insect Control B, C**

This soap-based insecticide, Safer's Soap, is sprayed in early summer, and is used to control various insect and mite pests, including aphids, scale insects, and spider mites. Safer's Soap causes insects and mites to dry out, and may also suspend and suffocate them. As many of these insect pests are pervasive and very mobile, follow up applications are often needed to ensure trees are not reinfested throughout the season.

### **Fungicide 1, 2, 3**

This nature-based fungicide, called Daconil, is sprayed in early summer and often followed up in later summer. It is used to control exterior fungal diseases including needle cast and tip blight on spruces, anthracnose leaf spot, willow scab and black canker, fireblight infections, powdery mildew, and other leaf spot, blotch, and blight diseases. As many of these fungi are pervasive and infect via airborne spores, follow up applications are often needed to ensure trees are not reinfested.

### **RootBoost**

This slow-release, liquid fertilizer is injected into the soil throughout the tree's root zone in the spring or fall. Tree vigour is greatly restored, and disease and pest afflictions can be significantly reduced, by following a regular annual program of fertilization and aeration. Unless you recently or regularly add nutrients to the soil around your trees in an urban setting they are *very* likely nutrient deficient.

### **Iron Treatment**

This chelated iron liquid injected into the soil throughout the tree's root zone, and is used to treat iron chlorosis, which is a tree disorder caused by an iron deficiency. In some cases, a foliar canopy spray of chelated iron may be recommended.

### **Dormant Oil & Fungicide**

This inert landscape oil, sprayed early in the spring, is used to control various insects and mites including aphids, scale insects, adelgids, leafhoppers, mealybugs, and spider mites. We add a copper-based fungicide to control exterior fungal diseases including anthracnose leaf spot, willow scab and black canker, fireblight infections, powdery mildew, and other leaf spot, blotch, and blight diseases. As many of these pests and diseases are pervasive and ubiquitous in the environment, follow up applications are often needed to ensure trees are not reinfested.

### **Mite 1, 2, 3, 4**

This pressure washer treatment is sprayed into the canopy of infested spruce in early summer to stave off pervasive spider mites, and also remove their protective webbing. Spotting, mottling, flecking, and yellowing of needles indicate a mite infestation. Damage from severe infestations may cause severe stress and even needle drop, and may even ultimately kill the tree. As mites are so ubiquitous and mobile, follow up applications are often needed to ensure trees are not reinfested throughout the season.

### **Elm Basal Spray**

This insecticide, called chlorpyrifos, sprayed in fall, is used to control elm bark beetles that are attempting to overwinter in the basal portion of the tree. Elm bark beetles are the carriers for the eponymous Dutch Elm Disease fungus. Because of the nature of the disease, once a tree begins to show symptoms, which manifest as drooping and yellowing leaves (flagging), it is too late for the tree. This is why it is best to take preventative measures to prevent the incursion of these beetles to save our elms together!

### **Dutch Elm Disease Prevention**

This fungicide, called Arbotect 20-S, is injected into the root collar, at the base of the tree. It is pumped throughout the vascular system of the tree to prevent Dutch Elm Disease. The eponymous Dutch Elm Disease fungus, *Ophiostoma novo-ulmi*, mainly infects a tree via its main insect vector, the elm bark beetle. Because of the nature of the disease, once a tree begins to show symptoms, which manifest as drooping and yellowing leaves (flagging), it is too late for the tree. This is why it is best to take preventative measures to save our elms together! This fungicide is guaranteed to protect your elms for 3 years, after which your tree needs to be inoculated once more to ensure it is protected. This service includes an annual, complementary application of Elm Basal Spray.

### **Emerald Ash Borer Prevention**

This insecticide, called TreeAzin, is injected into the stems of ash trees. It is pumped throughout the vascular system of the tree to prevent the inevitable incursion of the emerald ash borer beetle. This non-native borer beetle pest lays its eggs within the bark ash trees, and their larvae feed upon the living inner bark. This can quickly girdle and kill a tree. Emerald ash borer has been spotted in Winnipeg. Although a large scale infestation is not underway, it is only a matter of time until this pest decimates our ash population – that is unless our ash trees are protected. This is why it is best to take preventative measures to save our most valuable ash trees together! This insecticide is guaranteed to protect your ash trees for 2 years, after which your tree needs to be inoculated once more to ensure it is protected.

### **Injection – Insect Control**

This insecticide, called TreeAzin, is injected annually into the stems of large and valuable trees. It is pumped throughout the vascular system of the tree to prevent the incursion of insect pests, like leafminers, budscale, sawfly larvae, and certain types of caterpillars. These insect pests often consume the foliage or living inner tissues of infested tree, resulting in potentially devastating damage, and, in severe cases, tree decline and death. This is why it is best to take preventative measures to save our most valuable trees together!