LANDSCAPE LOG

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Zimmerman Pine Moth.

By April, dormancy is about to break, much of the pruning should be completed, and our landscape log should highlight insect control, planting and fertilizing.

Insect Control

Timing of insect control is paramount to results. The idea is to control the insects before they become a problem and more expensive pesticides are needed.

The catastrophic insects we can control during April include many scale, aphids, and mites by using dormant or superior oil sprays to the point of runoff. One should survey target trees.

Scales which overwinter on host plants include:
euonymus scale
lecanium scale
oystershell scale
crimson erineum scale
pine tortise scale
European elm scale
juniper scale
cottony maple scale
golden oak scale
Fletcher scale

Aphids are sucking insects which attack almost every tree or shrub. They overwinter in the egg stage and are also vulnerable to dormant oil.

Mites are also sucking insects which can cause significant damage to yews, crab apples, arborvitae and other plants. The two-spotted mite and the spider mite are two primary landscape mites. They are difficult to observe, but in significant populations cause bronzing of foliage, ultimate defoliation, disfigurement, and/or death.

Pine insects are another large group of insects which can be controlled in early spring. A significant number of insects affect the terminals and new growth of pines. Since pine's meristematic tissue is located in buds or new growth only, death of the terminal results in severe branch thinning and deformity. This ultimately leads to weakening and death.

Pine insects include European Pine Shoot Moth, European Pine Sawfly, White Pine Weevil, and Zimmerman Pine Moth.

Timing application of insecticides will increase in the future due to budgetary and environmental constraints. Timed applications of short residual insecticides and/or biological controls will become critical.

Biological indicators will help the landscape manager determine when the insect is in the most vulnerable stage. Bud swell, flowering, and commencement of growth will become important indicators of pesticide timing. A few examples are lilac bloom with both pine needle scale crawler hatch and spruce bud worm larval emergence, and forsythia flower opening with European pine shoot moth larval emergence.

One drawback is the strong influence of microclimate. In one location there can be as much as two weeks difference within a half mile as a result of exposure, sloping, or water.

Transplanting

Transplanting is best accomplished while the plant is still dormant but the frost is out of the soil. This gives us the choice of using bare root, balled and burlapped, or container plants with greatest chance of survival. After dormancy breaks, bare root transplanting is less successful. Balled and burlapped success decreases as growth commences. Container plants are not as affected by dormancy or growth. Generally, bare root stock is cheaper than balled and burlapped, and balled and burlapped stock is cheaper than container. So timing can save money as well as increase transplanting success.

The keys to transplanting early in the spring are to continually keep the root system covered with a thin film of moisture, use some form of organic matter to condition the soil in the hole, and water thoroughly after planting to provide intimate contact between roots and soil.

Fertilization

Early spring fertilization can help reduce the need for insect or disease control by reducing the impact of insects and/or disease. Fertilizer, applied in early spring, has more positive impact than fertilizer applied later in the season.

Fertilizer can be applied to the soil surface at the rate of 2 to 4 pounds of nitrogen per 1,000 square feet of soil surface under the tree. The best defense remains a good offense. A healthy vigorous landscape is less impacted by insects and disease. **WTT**

April Job Focus

1. Insect Control
2. Transplanting
3. Fertilization