



There are many benefits to the early spring application of nutrients and insecticide to ash and oak trees. Neither of these trees are native to the desert soils but can do well if properly managed. There are, however, problems both tree species face in the landscape. These problems can be divided into either insect damage or nutrient deficiencies. As is often the case, both insect damage and nutrient needs occur simultaneously, and given our current warm winter temperatures, we are expecting an influx in the insect infestations this year.

Insect Damage:

Both trees will nearly always become infested with aphids beginning in early spring following the growth of new leaves. Aphids feed by sucking sap from plants. When the number of aphids on an individual plant becomes very high for an extended period, their feeding can cause wilting and sometimes even dieback of shoots and buds. On Ash trees, aphids will cause leaf curling when the insect infests emerging leaves. This leaf curling is permanent for the remainder of the season and often results in reduced growth for that season.

Infestations on oak trees often results in leaf drop and what is typically called “sweating” where the aphids excrete a sticky liquid that coats the leaves and ground under the tree creating a wet appearance. New leaf growth on the oak trees is slow to develop and overall season long growth is reduced.

Nutrient Availability:

Both tree species do best with supplemental fertilizer applications, particularly the ash. Not only do we recommend the addition of typical plant nutrients (nitrogen, phosphorous, and potassium), but also the addition of other products that can improve the availability of the nutrients to the trees. Arizona’s desert soils often prevent many nutrients from being effectively absorbed by plant roots. As is often the case, nutrients may be available, but are tightly bound to the soil particles where they remain unavailable to the plants. We also want to increase the rooting health of the trees and to encourage more roots to develop to allow for greater nutrient uptake and stability of the trees.

To accomplish the goals of minimizing insect damage and providing better growth and health of the oak and ash trees, we recommend a tree “drench” in early spring each year. A mixture of systemic insecticide and a combination of 4 nutrient products are applied around the drip line of the ash and oak trees. We will apply between 5 and 10 gallons of water with the product mixture to each tree depending upon tree size. This volume of water will carry the nutrients and insecticide into the soil where the roots will absorb the insecticide and nutrients and transport them throughout the plant.

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Each of these products works in a different way to improve the overall health of the tree by helping the tree have better access to the nutrients in the soil and to utilize those nutrients more efficiently. In addition to the essential plant nutrients, we also want to stimulate and improve root development and growth and to improve nutrient availability to the roots.

In communities where this mixture has been applied routinely on an annual basis, we have seen a vast improvement in the overall tree growth and health as compared to the same species left untreated. The stunting and delayed growth of the trees caused by the aphid infestation is minimized. We also see an improvement in the tree's ability to remain healthy during the long hot summers, where we often see stress and leaf drop or leaf damage.

To be effective long term, these applications should be done on an annual basis. Again, aphid damage is seen each year and the soil conditions are such that the mixture of nutrients and soil conditioners will gradually decrease in effectiveness over time. This program should be considered for the long term to provide the best results.