

## Shall We Compost?

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Since the passage of AB 939 in California, local municipalities have been struggling with the question of how to reduce the waste stream flowing into local landfills. Basically, AB 939 calls for a 25% reduction in waste to the landfills by 1995, and a 50% reduction by the year 2000. The first step being taken by almost all the landfills is to divert greenwaste to a separate area for grinding, then either composting the material to be applied as mulch to landscape and agriculture, or diverting the ground greenwaste directly to agriculture without composting.

Some growers in San Diego County have been accepting free 100-yard loads of freshly ground, non-composted greenwaste for application in their groves. On the surface it may sound like a pretty good deal. Most of our soils are very low in organic matter, and increasing the organic matter will increase the cation exchange capacity of the soil (eventually making more nutrients available to the trees), will increase the water holding capacity, will reduce erosion and dust, will increase the microflora in the soil (which is good for keeping *Phytophthora* root rot fungi in check), and may actually increase yield.

The problem lies in the fact that the material is usually **not** composted. Composting permits (to make compost for sale and re distribution) are difficult to obtain, and it is understandable that these agencies would prefer not to be involved in composting. Does this result in a problem for growers?

Well, if you own a healthy avocado grove, you could be inviting disaster. Landscape contractors and municipalities dispose of a lot of dead and dying plants. Many of these plants (including junipers, camellias, pines, eucalyptus, and azalea) may have died of *Phytophthora cinnamomi* infection, the same cause of avocado root rot. During a proper composting process, the temperature of the compost pile should rise to 150 -175 F, easily killing *Phytophthora* which is killed at 125 F when exposed for several hours. The verdict: do not apply non-composted mulch to avocados.

It is a little more difficult making a similar recommendation for citrus. Almost all citrus trees have some *Phytophthora* and nematodes infecting the roots already. What they don't have is *Armillaria*, the oak root fungus, which could be spread into the grove by non-composted mulch. In addition, we can almost guarantee that bermuda grass and nutsedge will be introduced into the grove, both of which are very difficult to control even using chemicals.

A largely unexplored area of concern is the effect of natural chemicals leaching from non-composted mulch. For instance, if you collect greenwaste mulch in January, it will be dominated by ground Christmas trees. I would hesitate using this material, unless it had been exposed to a prolonged rain (most of the toxic resins and tannins are water soluble). A solution: compost the material at your grove before application.