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UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources
UC Master Gardeners of Napa County

Healthy Garden Tips

napamg.ucanr.edu
707-253-4221

MULCHES, SOIL AMENDMENTS AND FERTILIZERS

By Dean Donaldson, Farm Advisor

MULCHES	SOIL AMENDMENTS	FERTILIZERS
Place on top of the soil Food to worms and microbes Helps retain soil moisture Cools soil surface Reduces weed growth Can hide plant eating creatures Negligible plant nutrient source Decompose in months **Examples:** dry manures, kelp, peat moss, shavings, green waste, potting mixes, straw, compost, worm castings, bark, saw dust, newspaper/cardboard, lawn clippings, humus, "nitrified" products, grape pomace, leaves, woven and sheet plastic	Mixed into soil surface Food to worms and microbes Temporarily aids soil tilth Large volumes can change surface porosity Must be well mixed into soil Can rob available nitrogen Benefits are reduced over time N, P & K less than 5% total May be source of micronutrients Decompose in weeks **Examples:** dry manures, kelp, peat moss, shavings, green waste, potting mixes, straw, compost, worm castings, bark saw dust, newspaper/cardboard, lawn clippings, humus, "nitrified" products, grape pomace, leaves	Minerals needed for plant growth Absorbed as water soluble ions into plant root hairs and micorrhyzae Most must be processed by microbes into forms available to plants (N, P & K content) Water soluble forms applied to surface Insoluble forms must be mixed into plant root zone Sources Natural Organic Manmade **Examples:** Blood meal, bone meal, calcium nitrate, ammonium sulfate, 12-12-12, 16-6-8, very fresh manure

YARD PRUNINGS TO COMPOST AT CITY OF NAPA RECYCLING YARD

Yard Waste _____ Green Waste _____ Compost _____

(1) Yard trimmings Leaves and lumber Blender in tub Grinder	(2) Tub grinder Makes uniform sized pieces and blends	(3) Freshly ground material: "Green Waste" moistened and nitrogen balanced is piled into 8 feet high rows	(4) Piles are machine-turned a minimum of 3 times based on internal pile temperature during composting process	(5) As composting process slows, pile is screened and placed into large "compost" pile. Larger pieces returned to #2.	(6) More finished compost maintains moisture and is slow to heat. This is delivered to customers.	(7) "Cold or Aged Compost" end product. Mature/Decomposed Compost *does not heat when piled *plant parts are no Longer discernable Usually this stage develops at customer's site