



**About Worm Castings (*worm poop*)** Worm castings is rich 100% organic humus.

Castings contain rich microbiological colonies that help fight soil-borne plant diseases and repel insects.

Worm castings are water-soluble allowing plants to quickly and easily absorb essential nutrients and trace minerals. When the manure passes through the worms digestive tract, it forms a coating around the grain which allows for the nutrients to "time release" into the soil. Nutrients are readily available to plant material over a greater length of time and will not burn even the most delicate plants.

Analysis of earthworm castings reveals that they are rich in iron, sulfur, calcium, nitrogen, phosphorus and potassium (NPK rating: 5.5.3). They are much richer in nutrients than bulk compost, therefore application rates are much lower. Chemical fertilizers are a one-shot wonder. The plant uses what is immediately available - the rest leaches out into the soil beyond the plants reach. Chemical fertilizers are also the number one polluter of our waterways.

*Improved Growth:* Extensive University testing has been performed by Ohio State, Cornell University, UC Davis and the Australian SIRO to prove the worth of worm castings. The tests have shown improved flower size, bloom quantity, quality and color. Fruit and vegetable tests have resulted in yield improvements from 57% to over 200% as well as improvement in taste and appearance.

A tea can be made from the castings resulting in a 100% organic spray that improves nutrient absorption. It will NOT burn your plants. This easily absorbed water soluble mixture can be sprayed directly onto plants for immediate absorption or applied once a month while watering (*4 ounces of tea to a gallon of water*);

### Putting Worm Castings To Use

**Potting mixes/seed flats**—Mix 1 part worm castings to 3 parts potting mix.

**Flower beds, shrubs, roses, vegetables**—Top dress with 1 to 3 inches of worm castings and incorporate into the soil with a fork or spade.

**House Plants**—Spread 1/2 to 1 inch of castings around established plants and scratch into the soil, every 2-3 months.

**New Lawns**—Apply 10 pounds to 100 square feet. Work lightly into the topsoil.

**Established Lawns and Greens**—Top dress at 4 pounds to 100 square feet.

**Perennials**—Top dress 1 to 3 inches in spring, early summer, and fall.

**All plants and vegetables**—Apply every 30 days.

**New plants in pots**—Mix 10% worm castings with any potting soil, then add 1/2" layer on top before planting.

**Plants already in pots**—Scratch the top of the soil. Add 1/2 inch layer of worm castings on top and water thoroughly.

**Worm Tea**—Soak 1 part worm castings in 3 parts of water for 24 hours or more - mixing several times. Apply one - 8 ounce cup of tea per plant every 30 days or add 4 ounces of tea to 1 gallon of water for use as a foliar spray. Apply every 30-60 days.

UCCE Fresno County Master Gardener Website: <http://ucanr.org/sites/mgfresno/>