

# FEATURED SOIL AMENDMENT: WORM CASTINGS

## Worm Castings

No matter your growing goals, worm castings can help you get there faster and more efficiently. Let's look at the benefits of worm castings and why you should consider this soil amendment for your own Living Soils garden.

### What are the nutrients in worm castings?

Worm castings (aka vermicompost) are waste excreted by earthworms. Though we might think of earthworms as simple and humble creatures, they eat a lot of soil each day and the stuff coming out of them is so much better than the stuff going into them. Through digestion they help release soil nutrients such as nitrogen, magnesium, phosphorous, potassium and calcium. In fact, so much calcium is released from the soil they ingest that the pH of worm castings is often close to neutral (7.0).

### How are worm castings used in Living Soils?

Living Soils use worm castings not as a fertilizer but more like a probiotic for the soil. Just like many who take a probiotic for your gut health, worm castings contain thousands of different species of bacteria, fungi, protozoa, and other microbes to give life to your soil. In fact, a single teaspoon of the worm castings we use will have over a billion bacteria that are essential for the health of the soil and to your plants.

### Overall Soil Benefits of Worm Castings

Unlike other animal manures or even plant based composts, worm castings have the added benefit of passing through the digestive system of the worm which kills many pathogenic bacteria like E.coli and Salmonella. Although, not extremely high in any one nutrient, worm castings help grab and hold on to free nutrients supplied by other fertilizers and actually help in their uptake into plants. The castings help create the ideal environment for nutrient-demanding crops in that the bacteria in the castings create a soil structure that allows for great nutrient cycling and helps prevent soil diseases.

### *Some benefits include:*

- Quality organic castings typically include more than 60 micronutrients and minerals.
- Castings act as a buffer against soil pH extremes and facilitate nutrient absorption.
- By breaking down toxins, castings full of beneficial bacteria and fungi guard against soil and plant diseases.
- Castings help hold on to toxic heavy metals preventing a plant to absorb them.
- Castings are repellent to a wide range of common flies, mites and other pests.

## Premium Worm Castings in Your Garden

### **Vegetables and annuals:**

Add 15-30% worm castings into soil mix depending on existing soil structure. Alternatively work 1-2 inches of worm castings in planting zones, garden and seed furrows. Set plant or seed cover with soil mix and lightly water. Side dress during the growing season with ½ to a full cup of worm castings per foot for each row every couple of months.

### **Perennials:**

Add 15-30% worm castings into soil mix depending on existing soil structure. Apply 1 inch of worm castings above the root zone once per year, cover lightly with soil or mulch and water. Take caution not to damage shallow roots while working the worm castings. Apply in spring and again in early fall.

### **Planting seeds, seedlings and transplanting potted plants:**

Add 10-25% worm castings into soil mix depending on existing soil structure.

### **Established potted plants:**

Add in ½ to an inch of worm castings to the surface of the soil and water. Monitor and repeat every couple of months.

### **New or transplanted roses, trees, shrubs and berries:**

Allow plant to recover from transplanting shock. Then lightly top dress with 1 inch of worm castings. Water well and monitor.

### **Established Roses:**

Gently, scratch in 2-4 cups of worm castings into 2-3 inches of soil around each plant once annually. For late fall application, mound roses with a 10-25% mix of worm castings to its soil structure 4-8 inches high. As the following spring approaches, spread mound evenly around the plant.