

# Compost Use for Improved Soil

## Agricultural Applications

The use of compost improves moisture retention, fertilizer efficiency, and suppresses soil-borne disease while improving yield.



In determining how much compost to use, plant requirements and compost characteristics should be taken into consideration. A rate of 1-2 tons compost per acre is common practice

### Benefits of Using Compost

- Improves soil structure, porosity and density, creating a better plant root environment.
- Increases water infiltration and permeability in heavy soils.
- Improves water holding capacity, reducing water loss and making nutrients more plant available.
- Supplies organic matter and a variety of macro and micronutrients as well as beneficial microorganisms.
- Buffers soil pH and improves cation exchange capacity (CEC) of soils and growing media, improving their ability to hold nutrients for plant use.
- Binds contaminants within the organic matter and helps to suppress disease.

### What is Compost?

An organic matter resource that has the unique ability to improve the chemical, physical, and biological characteristics of soils.



### Compost application on soybeans: Field trial

Event	Date	No Compost	Compost applied
Compost top-dressed	5/19/16	No compost	75 cubic yards
Planted soybeans	5/23/16		
Soybeans germinated		6/7/16	6/7/16
Harvest	Sept 2016	32.8 bu./acre	40.1 bu./acre

### Soybean Growth

Five weeks after planting, soybeans in the test plot with compost were 34" while those in test plots with no compost were 28"



### Compost as Mulch

- Reduces evaporation
- Suppresses weeds
- Moderates soil temperature
- Reduces erosion and runoff
- Amends soil (even well below the surface)

Find your compost here:  
<http://compost.css.cornell.edu/maps.html>

