

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>