

Want Quality Compost?

Determining the suitability of the use of commercial compost in your growing operations

Want Quality Compost?

Roy Gross

Sales Representative



St. Louis

COMPOSTING

ENRICHING THE SOIL NATURALLY SINCE 1992



Our Company

- Founded in 1992 by Patrick Geraty as a result of Missouri Senate Bill 530, which banned yard waste from landfills and set a diversion goal of 40%
- Started with one composting facility and has grown to six compost facilities, one transfer facility, one mulch storage facility and a topsoil operation.
- Member of US Composting Council (USCC) since 2000
- Participant in USSC's Seal of Testing Assurance (STA) Program
- STL Region's largest compost producer
- Retail outlets sell our STA-Certified compost, mulch products and soil blends



US Composting Council
Seal of Testing Assurance

SLC Facilities

- Belleville, IL – 52 acre composting facility
- Eureka, MO – 80 acre topsoil operation
- Fort Bellefontaine Compost Facility – 19 acre compost facility
- Jonesburg, MO – 200 acre farm/compost facility
- Maryland Heights, MO – 9 acre transfer station
- Pacific, MO – 20 acre compost facility
- St. Louis, MO – 10 acre facility
- Valley Park, MO – 26 acre facility

2014 Volume

Received and composted approximately:

- Over 600,000 cubic yards of organics including:
 - Yard trimmings
 - Animal bedding
 - Cardboard and paper
 - Food waste
- Over 400,000 cubic yards of wood fiber:
 - Brush and logs
 - Wood chips
 - Clean wood and pallet waste

Source Materials



Resulting Compost Products

Compost Products

- Black Gold
- Field and Turf Enhancer
- Bessie's Best
- Premium Compost



Soil Blends

- Topsoil Plus
- Garden Mix
- Rain Garden Mix
- SLC Raised Bed Mix
- Professional Grower's Blends



US Composting
Council
*Seal of Testing
Assurance*

What is Compost?

- Compost is the product of the controlled decomposition of organic matter that has been stabilized through the generation of heat to the point that it is beneficial to plant growth
- Compost has the unique ability to improve the physical and biological characteristics of soil or growing media
- Compost contains plant nutrients but is not characterized as a fertilizer



What Does Compost Do?

- Increases organic value of soils
- Helps break up native silts and clays
- Improves soil texture and creates a more friendly plant root environment
- Improves moisture holding capacity
- Provides nutritional components
- Adds 'Life' to poor soils (microbiota & humic acid)
- Can help combat soil pests- fungus, bacteria and nematodes

The Composting Process



The Composting Process

COMPOST!!

But.....

The Composting Process

Properly produced compost requires:

- Time
- Proper Temperatures
- Turning/Aeration
- Monitoring
- TESTING!

STA Certified Compost



**US Composting
Council**

*Seal of Testing
Assurance*

If it isn't STA compost... *what is it?*

-Courtesy US Composting Council

What is STA-Certified Compost?

- St. Louis Composting participates in the US Composting Council's Seal of Testing Assurance Program (STA)
- Our participation in STA assures that our compost products are regularly tested and meets state and/or federal regulations
- Provides ongoing feedback on the quality of our compost
- Test results are made available using the STA "Compost Technical Data Sheet"
- Visit www.compostingcouncil.org for more information on STA Certification Program benefits

What does STA testing report?

- Nutrients: N, P, K, Ca, Mg - % by wet (as-is) weight
- Organic Matter - % content, dry weight
- pH
- Soluble Salts (mmhos/cm)
- Stability – Respirometry (C Stabilization)
- Maturity - Bioassay (Phytotoxins)
- Pathogens
- Trace Metals : **As, Cd, Pb, Hg, Mo, Ni, Se, Zn**

Major/Minor Nutrients

- Tells the grower what is being or could be added to the soil
- Can help minimize the risk of over/under-fertilizing
- Can reduce need for commercial fertilizers and micronutrient packages
- Tests cover major and minor plant nutrients

Organic Matter

- Organic content data can help the grower apply at a rate to optimize organic content of local soils
- Higher levels of organic matter can improve percolation and moisture holding characteristics of poorer soils
- Provides Humic Acids
- Improves Cation Exchange Capacity (CEC)

pH and Electrical Conductivity

- Allows a grower to modify soils to crop-specific acid/alkalinity levels
- Test data alerts a grower to favorable or unfavorable conditions for salts or pH
- Alerts the grower of potentially unsafe materials- high salts (EC) can cause root damage issues

Stability and Maturity

- Stable composts do not degrade readily in the soil, so the organic matter lasts for years
- Stable compost tends not to tie up nutrients and makes them more plant available
- Bioassay tests can determine the presence of harmful substances in compost
- Suggests vigor of growth in the soil

Bioassay

- Growth tests measure the percentage of seed germinations and vigor in compost against a (control) growth media
- Growth tests are a great indicator that there are no harmful substances in the compost

Bioassay

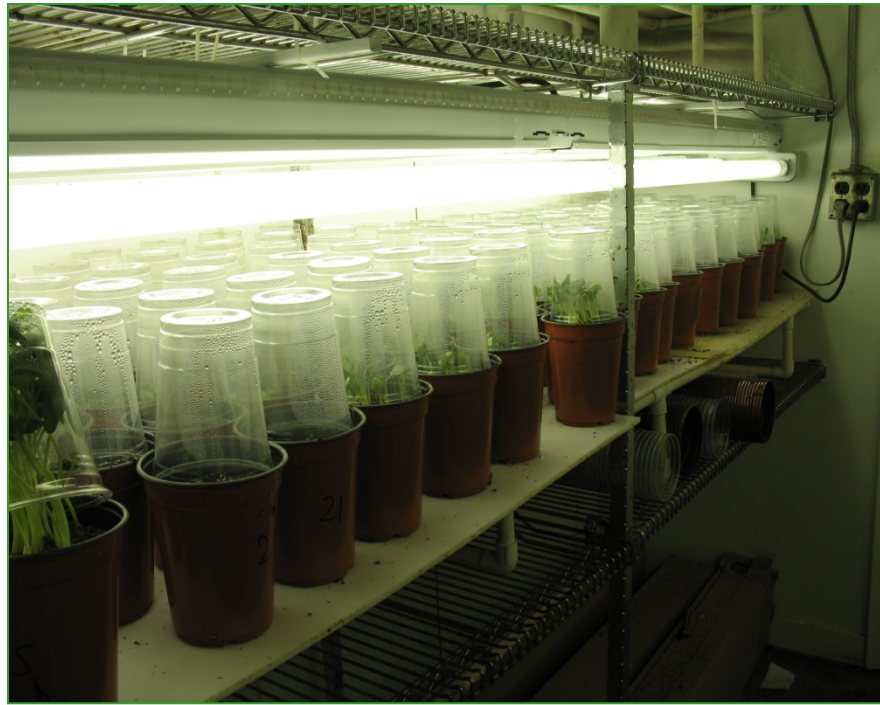


Photo courtesy of USCC

Inverted clear cups prevent off-gasses from one specimen from impacting its neighbors

Pathogens

- Basic food crop contamination and Human Health and Safety (HH&S) issues
- Independent testing helps prove pathogenic microbes were not soil-borne
- Testing of the compost alone will not absolve the producer of responsibility. Test soil and product often. Adhere to HH&S practices
- Tests are indicators that plant pathogens and weeds have also been destroyed

Trace Metals

- Testing discloses content of trace metal contamination before application
- Basic food crop safety issues
- Testing of the compost alone will not absolve the producer of responsibility. Test soil and product often. Adhere to HH&S practices
- Many metals are actually micro-nutrients for plants (e.g., Fe, Mn, Zn)

The BIG picture

- Tested materials inform the grower of content, maturity, chemical attributes and safety
- Tested materials can help the grower manage fertility better
- Testing can keep a grower from applying sub-standard or dangerous materials
- Knowledge is POWER! Test Often!

Your Questions?



Strawberries Growing in Compost Media

Photo credit: Ron Alexander

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