



## PRODUCT INFO

People often ask why is the price of my compost so high? *The real question to ask is why are the other products so cheap?*

The US Composting Council (USCC) recently released a survey on bulk retail prices around the country in different market areas. The Texas average for yard waste compost (grass and leaves) is \$33.62/cy and I am at \$33/cy. Another example is John Dromgoole (Lady Bug) in Austin which is a good grade of compost and they sell it for \$45/cy. As you can see, NWR prices are actually very low considering the quality and value they offer.

The USCC survey does not include quality issues, composting times (herbicide breakdown issues), composting methodology (windrow vs. static pile), salts, screening, turning, nutrient and microbial content, etc., only the selling price. It also includes government funded operations that use tax dollars to produce compost, do not have to make a profit and sell it below cost which lowers the average selling price (operations that give it away free were not included).

Last spring I was in San Antonio and listening to Bob Webster on his radio gardening show. He was talking about some of the products in his area "called compost" that are actually killing and/or stunting the growth of plants. This is due to lack of correct processing (not enough time, improper mixing of ingredients, high salt content, herbicide residues, etc.). Some of these same products are also sold in Houston in bags.

Texas does not have labeling laws; hence many people sell garbage and call it compost. This includes the folks who use boiler ash to chemically burn things black and call it compost (in addition to the ashen mulches).

### **Example: Mushroom Compost**

Another common product sold as compost is Spent Mushroom Substrate (SMS). It starts off similar to compost using straw, manure, etc. and is partially composted. Table salt (NaCl) is often added to the mix to make it so salty that nothing will grow except the species of mushroom they are trying to grow. After the mushrooms that are harvested have extracted most of the original nutrients and will not grow anymore, the substrate is disposed of. Hence the technical name "spent mushroom substrate". It is often anaerobic, full of pathogens, and often alcohols from fermentation. No one would buy it, hence the name Mushroom Compost to sell and get rid of it rather than paying a waste disposal fee.



Common Problems with SMS: Studies have shown decreased plant growth and yield at levels as low as 5% SMS in a mix due to high soluble salts. Other studies have shown it may have a high pH level which is harmful to plants that like acidic conditions. Even the low quality bagged manure often sold in Big Box stores often has 3 times the amount of nutrients. Mushroom growers have major problems with fungus gnats hence they regularly spray with toxic chemicals such as methoprene, cyromazine, difluneturon, dimlin, and diazinon. Other toxic chemicals occasionally used are benmyl, thiabendazole, and chlorothalonil. Hence SMS does not meet the standards for use in organic production and often contains potentially toxic material.

The SMS is often stored in large piles that become anaerobic. This allows pathogens to grow in the material. The putrefying organic matter creates organic acids that often have a strong odor. Common odors are vinegar, sour milk, vomit, rotting meat smell and occasionally ammonia or rotten eggs. All these odors indicate that alcohol is present which is toxic to plant roots in concentrations as low as 1 ppm.

SMS is organic matter and still contains some benefits such as increasing moisture holding of soils and helping create soil structure. Since most of our area soils are very low in organic matter it may provide some benefit. Best results occur in sandy soils in areas with lots of rainfall so the water can wash out and leach the salts and toxic chemicals. In clay soils the salts glue the clay particles together creating hardpan.

#### References:

SMS Symposium, Philadelphia Pennsylvania, March 11-14, 1994

Compost Science & Utilization, Vol.2, No.3, Summer 1994

Compost Science & Utilization, Vol.3, No.1, Winter, 1995

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#### **Example: Sewage Sludge**

Sewage sludge is often composted as a waste disposal method. This product may have toxic chemicals, residual hormones, antibiotics, heavy metals, etc. Most of it is produced by government funded composting operations (e.g. City of Austin, San Antonio, and many more) and sold as low



cost filler (\$7-8/cy) to blend with other feedstocks and types of compost. While it may have good nutrient levels it often contains heavy metals and many toxic compounds. It is commonly made with fast windrow methods that kill all the beneficial fungus leaving highly bacterial based compost that favors weed growth over perennial and other desired plants. It has a use in society but not in our yards and gardens.

### **Example: Salts or Sodium Issues**

The Gulf Coast has thousands of salt domes (source of our oil traps and oil production industry) which create small faults that allow groundwater to enter and dissolve the salt which contaminate our soils. As a result many of our area soils have high sodium levels bordering on salt toxicity for many species of plants. We also have some sodium that comes 50-60 miles inland from the gulf during tropical storms that adds to the problem. Any salt containing product only makes the problems worse.

Chicken manure composts (salts and arsenic), cow manure, and similar feedstocks have high sodium levels. They work well in low salt areas like Austin, San Antonio, and Dallas, where they do not have a sodium problem. They are produced using fast composting methods which destroy the beneficial fungus resulting in a bacterial based product that favors weeds.

### **Example: Economics**

One needs to also look at the regional economics as the cost of composted products is driven by the waste management industry (e.g. the dumping rates at area landfills). Recently, I was in Seattle visiting my daughter and I visited a compost operation that makes leaf compost. The operator gets a \$10/cy dump fee as landfill rates are \$20/cy. It takes about 10 cy of leaves to make a finished yard of compost. Hence they get \$100 of revenue for every 1 cy of compost produced. They sell the compost for \$15/cy for total revenue of \$115/cy sold. It cost them about \$25 to process and makes the compost using a 6 month process. They net \$90 gross revenue per cy sold to pay all the related overhead and they make a nice profit. In Houston to get clean leaves I have to accept the leaves for free since landfills only charge \$4.00/cy and less on commercial contract rates. It only costs me about \$20/cy to make the compost since we have lower labor and fuel costs. When I sell it for \$33 I only net \$13 to pay overhead and produce profit, a huge difference in economics.

### **Example: Mulches**

For mulch, the USCC found that \$18.88 is average (\$9-27 range) in Texas. My fresh ground mulch is only \$15/cy and my composted and screened Native mulch (with compost in it) is only \$27/cy. It is nutrient rich, full of beneficial microbes, no weed seeds and naturally a deep chocolate brown.



Researchers have found that healthy fertile soils with few insect or disease problems have a carbon to nitrogen ratio (C:N) of 30:1. Bark mulches and colored mulches for example have a C:N ratio of 500:1. As nature tries to break them down they suck up nitrogen from the soil which stresses the plant resulting in increased disease and insect pressure. These types of mulches cannot support (actually kill) the beneficial soil microbes that prevent soil diseases.

I only make my mulch from the branches and limbs of trees. The reason animals like deer, beaver, squirrels, etc. eat branches and limbs for food is the nutrients in them (protein, carbohydrates, minerals, etc.). The material starts off with a C:N ratio of less than 100:1. After composting it is reduced to less than 60:1, the material is naturally turned a deep chocolate brown by the microbes as the material decays. The heat of composting kills all weed seeds and pathogens. The composting process shrinks the material and concentrates the nutrients. The leaves and cambium layers turn into compost and the level of beneficial microbes increases dramatically (often over 10X what's required for plants to be healthy). It is then screened to remove large pieces and ensure a uniform appearance. My finished native mulch is a very dark brown, nutrient rich, high levels of beneficial microbes, has a 10-15% compost content, and totally organic. I sell a different type mulch product of much higher quality and value.

Many companies use fillers like bark, rice hulls, saw dust, sewage sludge, etc. to lower costs which I do not do. My goal is to produce the highest quality products that offer the most value to customers.

### **Example: Topsoil**

My regular Topsoil is \$22.00/cy while the state average is \$20.63 (\$18-22.50). Many companies in Houston get their soil from the old rice farms out near Waller and Hempstead. After 80 years of farming the soil is worn out, contaminated with toxic chemicals, and the only thing that can grow in them are weeds and it is full of weed seeds. I use only virgin topsoil from construction projects that are clearing forested land for development or mined off of my property as we clear trees for facility expansion.

I also have topsoil that is mixed with wood chips and composted for 6-9 months to kill weed seeds and pathogens. It is then screened to remove roots, rocks, etc. and enriched in organic matter by the composting. It is as close to weed free as we will ever get. This is what I use in my soil blends.

The reason my prices are *actually so low* is that I am a manufacturer, hence there is no middle man as customers by direct and avoid the middle man mark-up. These allow customers to get a very high quality (value) product at near or below market prices.

***The real question people need to ask is why are the other products so cheap?***



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The answer is that they are not compost! Just a cheap low quality product called compost for marketing and sales. It hurts our whole gardening and landscaping industry by these sham producers. These low quality products cause many problems from nutrient tie-up, salt toxicity, insect and disease problems, etc. and do not work. The cost of correcting these problems will cost many times more than the price difference of using a good quality product to begin with.

When customers bring up price issues to me or when I visit problem sites (consulting work) I always remember these three business & gardening proverbs:

- 1) It is far, far, far, far, far cheaper to put a \$1.00 plant in a \$10.00 hole than a \$10.00 plant in a \$1.00 hole! Dewy Compton
- 2) I have no quarrel with a man whom has a lower price, whom better knows what his product is really worth.
- 3) You get what you pay for!

This is why your role is so important in educating other gardeners about these issues.

Note: Prices listed were for the Summer 2007 season and are given only as a reference point. They will change over time as inflation and the economy changes.