

## Compost from Waste

Rapid City Solid Waste Division produces and makes available to the public two high quality composts. One is made from the yard waste and the other, Co-compost, is made from the organic fraction of the garbage.

All compost products are tested by a third-party laboratory for safety and quality. The yard waste compost is tested for compost quality. The Co-compost is tested to make sure the product meets EPA Class A requirements. It is perfectly safe for all compost use.

Copies of the product labels for Rapid City Municipal Solid Waste Compost (Co-compost) and the yardwaste compost as well as compost regulations and laboratory test results are on file at the Solid Waste office or by calling 605-355-3496.

*Compost is neither soil nor fertilizer. It is a soil amendment or additive whose function is to add organic matter to the soil. Increasing organic matter in the soil improves soil structure – increasing the ability of the soil to breathe, to retain moisture, and to provide a healthier environment for plant roots. Experience has shown that the proper use of good compost will reduce water, fertilizer and pesticide/herbicide needs.*

Over a period of about five months, the yard waste material is ground, watered, turned, tested and screened into two sizes before being offered for sale to the public.

The Co-compost is processed in about two months through the City's Co-compost facility. The material is processed, watered, aerated, screened, and tested to strict EPA standards before being released for use.

**Loads** - from buckets to pick-up loads can be accommodated. Pick-ups are filled upon request with loaders and hand shovels are available for smaller portions. It is recommended that persons bring tarps and ropes to cover loaded pick-up beds or trailers to keep the material from blowing in transit.

**Costs** - range from as low as \$1 for a trash barrel (30 gallon or so) to \$25 for a full pick-up load. Rates are based on \$20/ton for the 3/8" compost and \$15/ton for the 3/4" compost/mulch. Wood chips, another product of the composting process, are also available for purchase.

Currently there is no charge for the Co-compost product.

Simply drive on the scale at the site entrance. Your vehicle will be weighed before and after loading the compost and you'll be charged according to the change in vehicle weight and the product picked up.

***Some suggestions for appropriate application and use of compost:***

- When compost products are used as a soil amendment, the compost should be well blended into the root zone, preferably in the autumn. The root zone is roughly the first 4-8" of soil depth. Integrating the compost to that depth opens up the soil for gas exchange or the soil's breathing as well as increasing the soil's ability to retain moisture. When the soil warms in the spring, the essential microbes in the soil will thrive and provide increased nutrients for young plants.
- In addition to completely incorporating the compost into the soil, adequate time (over the winter) must be allowed for the microbial colonies in the soil to accumulate before planting. The compost, soil microbial activity and overall soil structure will improve steadily with yearly fall applications.
- A starter fertilizer, a general purpose lawn fertilizer rated (Nitrogen) 15-(Phosphorus) 15 (Potassium)10 should be incorporated into the soil before planting takes place. Use the starter fertilizer **only** if you are applying 2 inches of compost. It is **not necessary** to add that if you are applying 1 inch or less of compost.
- Approximate amount of compost to use per 1,000 square feet, applied annually, (do a rough estimate of your space), is as follows:

¼ inch layer	0.75 cubic yards	500 pounds	0.25 tons
½ inch layer	1.5 cubic yards	1,000 pounds	.50 tons
1 inch layer	3.0 cubic yards	2,000 pounds	1.00 tons
2 inch layer	6.0 cubic yards	4,000 pounds	2.00 tons

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*The following are guidelines adapted for general use in this area from the US Compost Council's architecture/design specifications for compost use. See [www.compostingcouncil.org](http://www.compostingcouncil.org).*

*In general, compost shall be uniformly applied over the entire area at an average depth of 1 to 2 inches. Incorporate to a depth of 4-8 inches using appropriate equipment.*

#### Construction requirements – Turf

1. Spread the compost uniformly over the entire area to an average depth of 1-2". Incorporate to a depth of 4-8" (the root zone).
2. Apply the starter fertilizer (NPK 15-15-10) with the compost **only** if you are applying 2 inches of compost.
3. Rake soil smooth
4. Water thoroughly after seeding or sodding.
5. If necessary because of hot, dry weather and/or drying winds, top-dress newly seeded areas with ¼ inch layer of fine compost (3/8 inch or finer), and water well.

#### Construction requirements – Planting beds

1. Spread the compost uniformly over the entire area to an average depth of 1-2". Incorporate to a depth of 4-8" (the root zone).
2. Apply the starter fertilizer (NPK 15-15-10) with the compost only if you are applying 2 inches of compost.
3. Rake the surface smooth, plant then water.

#### Construction requirements – Backfill for trees and shrubs

1. Excavate a planting hole one inch more shallow than the depth of the root ball and 2-3 times the width of the root ball or the container. (For example, if the diameter of the root ball is 12", the planting "saucer" should have a diameter of 36".) The finished planting area should be like a **dish** not a **bucket**.
2. Set the root ball on undisturbed soil so that the top of the root ball will sit slightly higher than the final grade.
3. Score (loosen) the soil in the sides of the planting area so the roots will be able easily to penetrate into the sides.
4. Set the root ball in the center of the depression, resting on undisturbed soil so that **the first lateral (horizontal) root will be on the surface of the soil.**
5. **No soil amendment or fertilizer of any sort is needed at the time of planting.**

6. Backfill and firm the soil blend around the root ball in the planting hole being careful not to have the soil above the root flare on the trunk.
7. Spread yardwaste mulch and/or woodchips on the backfilled area, keeping the mulching material several inches from the trunk. Raise the sides of the woodchip/mulch to form the 'lip' of the mulch saucer.
8. Water well. Generally speaking, this is the watering guide for newly planted trees:
  - a. 1 gallon of water per day per inch of trunk diameter for the first 2-3 weeks.
  - b. Then 2-3 gallons of water every other day for 2-3 weeks.
  - c. Then 5-7 gallons once per week per inch of trunk diameter.

#### Use as a landscape mulch

1. Compost mulch shall be uniformly applied over the entire area to an average depth of 2-3 inches as soon as possible after weed removal and planting. (Note: since this will biodegrade (and feed the soil) over time, there is no purpose in applying fabric weed barriers.) The mulch can be covered, for esthetic purposes, with more expensive woodchips – cedar, various barks, etc.
2. Avoid placing mulch up against the trunk or stem of any plant material. Mulch close to the stems provides a point of entry for small rodents and insects and also can encourage roots to grow up and into the mulch rather than out and into the soil.
3. Water thoroughly before and after mulching to saturate the root zone and entire mulch layer.

For comments about the use of compost for erosion control or as a filter berm, see the Compost Council Website at [www.compostingcouncil.org](http://www.compostingcouncil.org).

*Compiled by Cathie Draine, edited and printed by the Solid Waste Division, Department of Public Works, City of Rapid City, March 2009.*