

# Guidelines for On-Site Use of Scrap Wallboard in Georgia Residential Construction

## Guidelines for Use

When you are planning to apply ground scrap wallboard on your building site, you should follow the steps listed below.

### 1. Determine the application rate.

First, have the soil tested. You should have a routine soil test performed on soil where ground scrap wallboard will be applied. Your County Extension Agent can supply you with bags for soil sample collection and detailed information on how to take a proper soil sample. A routine analysis will tell you the soil pH, and the amounts of phosphorus, calcium, potassium, magnesium, and zinc available for plants to use.

The application rate for the ground scrap wallboard is based on the amount of silt and clay that is typically present in the soil surface. Soils in the Piedmont, Mountains, and Ridge and Valley have more silt and clay than those in the Coastal Plain; consequently, higher rates of ground wallboard gypsum can be applied (**Table 1**). Research has shown that nutrient imbalances due to gypsum application do not generally develop in soils high in silt and clay. High rates of gypsum application can sometimes cause a problem with magnesium in sandy soils.

**Table 1.** Recommended rates of ground scrap wallboard application. *Note:* These weights are for dry ground wallboard.

Region	Recommended Rates
Piedmont, Mountains, and Ridge and Valley	250 lbs/1000 ft <sup>2</sup>
Coastal Plain	50 lbs/1000 ft <sup>2</sup>

### 2. Determine if there is enough land at the site to apply all the wallboard.

*To calculate the actual amount of land needed.*

To determine if you have enough land available to apply wallboard for each project, multiply the number of square feet in the house by 1.5 lbs. Divide this number by the appropriate number of pounds for your region in **Table 1** and multiply by 1000 (*See the worksheet on Page 2 for assistance*). This is the number of square feet you need to apply all your ground wallboard. Then, compare this number to the area you have for application (lawns, plant beds, and gardens). Be sure not to include the footprint of the house and impervious areas such as the driveway in your area for application.

#### **Example:**

A 2,500 square-foot house is being built on a three-quarter acre lot (32,670 ft<sup>2</sup>). Approximately 5,000 ft<sup>2</sup> of the lot will be occupied by the house and impervious areas. This means 27,670 ft<sup>2</sup> of land is available for ground scrap wallboard application. Using 1.5 lbs per square foot, construction will generate about 3,750 lbs of wallboard. Using a typical application rate (Table 1) of 250 lbs/ 1000 ft<sup>2</sup>, you will need 15,000 ft<sup>2</sup> of land for application. Because 27,670 ft<sup>2</sup> is available for application, all of the scrap wallboard generated can be land applied.

*Proceed with the following steps, if you have enough land to apply the wallboard from a specific site.*

### 3. Segregate scrap wallboard.

Place all the clean, scrap wallboard in one location that will be accessible to the grinder. Moisture resistant or fire retardant wallboard should not be used because guidelines for land application of these products are not available at this time. Wallboard from demolition or that has been painted or wallpapered should not be used.

## Worksheet to calculate the amount of land needed to apply ground wallboard from a building site.

### Step 1: Area needed to apply wallboard.

Formula:  $[\text{Size of the house (ft}^2\text{)} \times 1.5 \text{ lbs/ft}^2] \div [\text{Recommended application rate (lbs/ft}^2\text{)} (\textit{Table 1})] * 1000$

Your Numbers:  $[ \text{_____ ft}^2 \times 1.5 \text{ lbs/ft}^2 ] \div [ \text{_____ lbs/ft}^2 ] * 1000 = \text{_____ ft}^2$

### Step 2: Existing area to apply wallboard.

Formula:  $\text{Size of the lot (ft}^2\text{)} - \text{Size of impervious area (ft}^2\text{)} (\textit{Driveways, etc.})$

Your Numbers:  $\text{_____ ft}^2 - \text{_____ ft}^2 = \text{_____ ft}^2$

**Step 3: Compare.** The number in Step 1 is the amount of area needed to apply ground wallboard from a site. If the number calculated in Step 1 is less than the number from Step 2, you have enough land to apply all the ground wallboard from your building site.

## 4. Grind the wallboard scraps.

Clean wallboard scraps should be ground with equipment that has a two-inch screen to make sure the paper is shredded and there are no large chunks of wallboard. Controlling dust during grinding is important. If ground wallboard will be stored before application, cover the pile with a tarp to keep the material dry and easy to handle.

## 5. Apply the ground wallboard.

Apply fertilizer and high magnesium dolomitic lime to the soil according to the recommendations from your soil test results. The ground wallboard should be evenly spread over the soil at or less than the recommended rate. Photographs at the right illustrate an even application at the recommended rate. The ground wallboard should be tilled or mixed into four to 12 inches of soil.

**Beneficial reuse does not include digging holes and burying the wallboard.**

## Useful Facts

- ◆ A skid loader bucket will hold about 1 yd<sup>3</sup>.
- ◆ A front end loader will hold 2-3 yd<sup>3</sup>.
- ◆ Dry ground scrap wallboard weighs about 400 lbs/yd<sup>3</sup>.
- ◆ At a rate of 250 lbs/1000 ft<sup>2</sup>, one skid loader bucket would cover 1,600 ft<sup>2</sup> (40ft x 40ft). This is an area slightly smaller than a volleyball court.
- ◆ At a rate of 250 lbs/1000 ft<sup>2</sup>, about one-third of a skid loader bucket would cover the goal box on a soccer field.

## Application Rates



◆ 250 lbs/1000 ft<sup>2</sup>



◆ 50 lbs/1000 ft<sup>2</sup>

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