

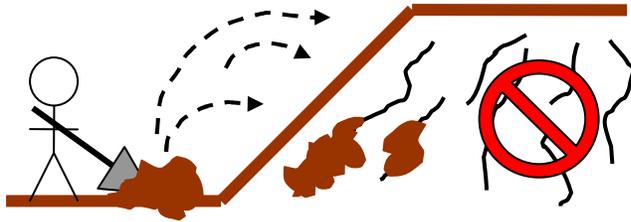
## Soil Stabilization

### Hydroseeding and Temporary or Permanent Grassing

A soil-specific polymer can be added into the hydroseeding mix and applied over exposed soil and slopes. The polymer reacts with the soil, binding the mulch, seed, fertilizer, and other additives to the soil, holding it together until vegetation is established. Open weave matting can be applied before hydroseeding areas, especially in areas with steep slopes or sandy conditions, to provide additional structural support, creating a highly erosion-resistant surface to support vegetation establishment.

- i. Application rate (per acre coverage): varies by soil content and grade of slope.
  - Gentle to Moderate slopes (0 to 4H:1V)
    - High Clay Content:  
10-20 # powder or 1.5-2.0 gallons emulsion
    - High Sand Content:  
15-20 # powder or 1.5-2.0 gallons emulsion
  - Steep slopes (3H:1V to 1H:1V)
    - High Clay Content:  
20-35 # powder or 1.5-2.5 gallons emulsion
    - High Sand Content:  
25-50 # powder or 2.0-2.5 gallons emulsion
- ii. Silt Stop emulsion or powder shall be added to all hydroseeding mixes at the above application rates per 3000 gallons of water, and then applied at the rate of 3000 gallons of hydroseed mix/ acre (**NOTE: Polymer additions are limited by extremely high viscosity, do not exceed the recommended dosage rates.**) Site testing will determine the correct polymer type.
- iii. Silt Stop shall be added **slowly** as the final additive to the hydroseeding mix. **Addition of the polymer all at once will cause clumping of the polymer and may cause clogging of the spraying equipment.**
- iv. Due to the viscous nature of the polymers, the hydroseed mix should be applied to the soil as soon as possible after Silt Stop has been added and thoroughly mixed.
- v. Straw, mulch, or tight-weave matting may be applied over the hydroseeded application. Open-weave matting such as jute may be applied before the hydroseed application.

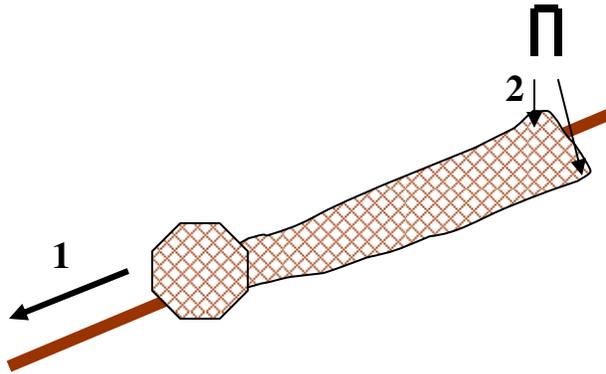
## Step-by-step Hydroseeding and Grassing



### Step 1: Prepare site.

Fill any rills or gullies caused by previous erosion.

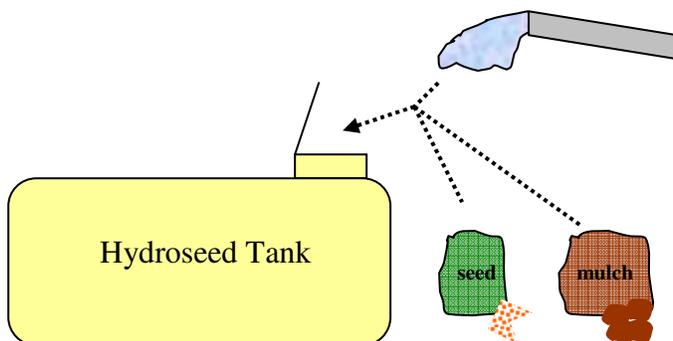
Ensure the matting can be applied flush to the soil surface to prevent tenting.



### Step 2: Apply Matting.

We suggest using an open-weave jute or coir matting, preferably with  $\frac{1}{2}$  - 1 inch open spaces.

Secure the matting to the soil surface with stakes or soil staples, taking care to ensure the matting is flush to the ground.

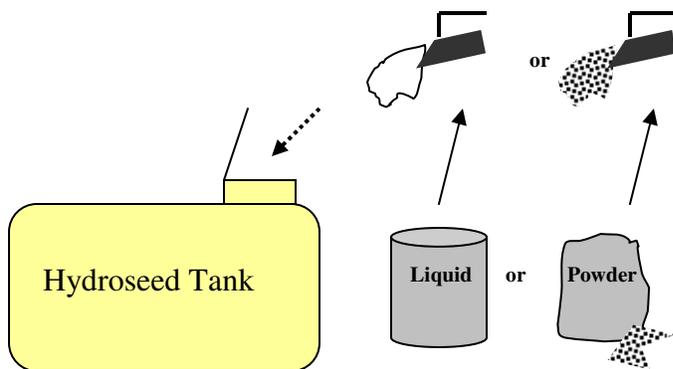


### Step 3: Hydroseed Mix

Fill the hydro-seeder tank with water, and add the normal mix of seed, fertilizer, fiber mulch, etc.

Be sure the machine has an agitator or mechanical mixing device.

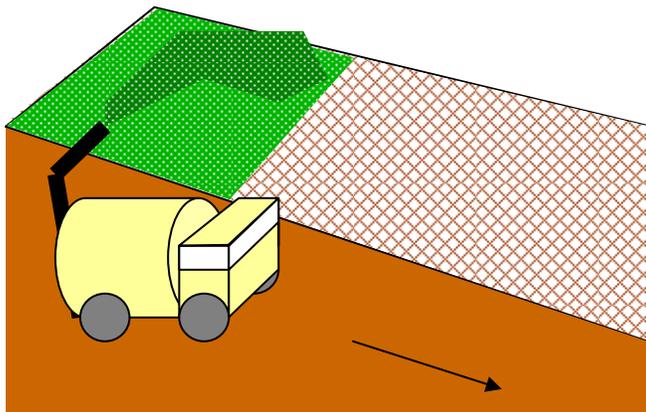
## Polymer Enhanced BMP Application Guide



### Step 4: Add Silt Stop

Slowly add the Silt Stop polymer as the final additive to the hydroseed mix while the agitator is running to ensure mixing.

Allow 5 minutes of mixing before beginning to apply.



### Step 5: Apply Hydroseed

Spray the hydroseed mixture over the top of the open-weave matting.

Proper application should result in complete coverage with no bare soil visible.



The matting and polymer will help hold the seed and fertilizer in place and prevent the soil from eroding until the vegetation can germinate and establish root structure.

## Application Example: Hydroseeding over Matting

1) Clear site



2) Fill rills and gullies



3) Apply matting



4) Add Silt Stop as final additive to mix



5) Spray onto slope



6) Stabilization 4 weeks later



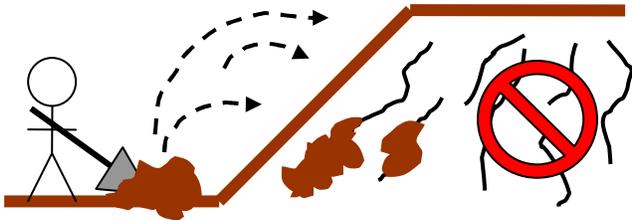
## Soil Stabilization

### **Dry Spread with Mulch or Straw**

A soil-specific polymer can be applied directly to the soil surface, using a seed/fertilizer spreader, either alone or as part of a mix. The polymer reacts with the soil, binding the mulch, seed, fertilizer, and other additives to the soil, holding it together until vegetation is established. Mulch, straw, or matting can be applied over the top of these areas to provide additional structural support, creating a highly erosion-resistant surface.

- i. Application rate (per acre coverage): varies by soil content and grade of slope.
  - Gentle to Moderate slopes (0 to 4H:1V)
    - High Clay Content: 10-20 # powder
    - High Sand Content: 15-20 # powder
  - Steep slopes (3H:1V to 1H:1V)
    - High Clay Content: 20-35 # powder
    - High Sand Content: 25-50 # powder
- ii. Dry soil-specific Silt Stop powder shall be applied using a seed or fertilizer spreader or may be mixed with other dry spread additives.
- iii. Straw or mulch should be applied over the Soil-specific Silt Stop application. Applications using matting are outlined in the Soft Armoring with Matting section of this guide.

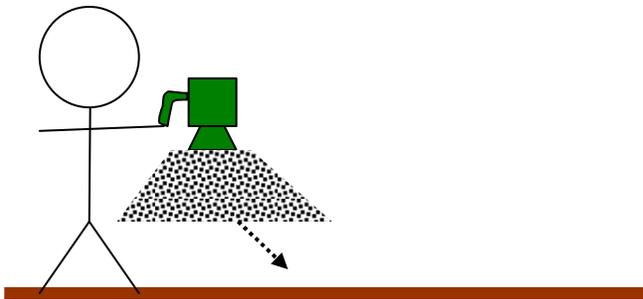
## Step-by-step Dry Spread with Mulch or Straw



Step 1: Prepare site.

Fill any rills or gullies caused by previous erosion.

Ensure the cover material can be applied flush to the soil surface.

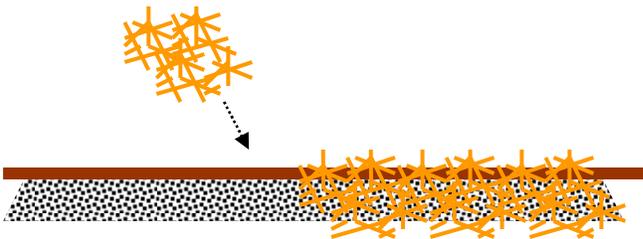


Step 2: Apply Silt Stop powder

The Silt Stop powder should be spread dry over the ground. Preferably the ground should also be dry.

The Silt Stop powder can be applied by hand or with a seed/ fertilizer spreader.

Grass seed and fertilizer may be mixed dry with the polymer and spread at the same time.



Step 3: Apply Straw or Mulch

Straw or mulch application should completely cover the ground, leaving no areas of exposed soil.