

SPRAY-ON SOIL STABILISERS (BINDERS AND HYDROMULCH)

WHAT IS THIS?

Soil stabilisers are cost-effective, surface spray-on liquid products which can be rapidly applied to disturbed flat or sloped areas to protect soil from erosion. The stabiliser creates a protective film on the surface of disturbed ground and has a dye in it so you can see where it has already been applied. How effective the soil stabiliser or binder is, and how long it works for depends on the product, but is usually 2-3 months if the ground is not disturbed.

Hydromulch is a special type of soil stabiliser containing a slurry mix of seed, fertiliser, mulch, and 'tackifier', which is designed to be sprayed onto disturbed ground. Seeds in the mix germinate and, as plant roots grow, they stabilise the area. Hydromulch is more effective when applied over an area where the topsoil has been retained or replaced after works. The hydromulch seed mix can be adjusted for the site, and can be used to establish grasses and native shrub species.

WHAT DO I NEED TO DO?

Before starting site works:

- Ensure areas to be stabilised and products to be used are shown on your approved ESCP (see page 17).
- Keep as much existing vegetation on your site as possible and only clear immediately prior to earthworks.
- Choose the appropriate soil stabiliser for the situation. For example, soil binders may be more appropriate for temporary soil protection, and hydromulch may be better for long term stabilisation.
- Ensure that the soil stabiliser does not pose an environmental risk and choose an appropriate weather window according to the forecast.
- Read the label/product information and if necessary, check with the manufacturer about when the soil binder can be planted over. If the water repellent properties have not fully broken down, it may result in poor revegetation outcomes.

- Choose products that can withstand expected traffic movements.
- Ensure no material is displaced from the site during the application and curing periods.
- Ensure diversion drains, catch drains, and/or berms have been installed to prevent upslope runoff getting underneath the soil stabiliser.
- Ensure the purpose and maintenance schedule for the soil stabilisers is included in the site inductions for that stage.

Installing the controls:

Soil binder: Read the product label or employ a suitably qualified person to determine the correct mixing ratio and application rates, surface preparation, and cleaning of equipment.

- The soil may need to be roughened. Allow sufficient drying time for applied product before forecast rain or dew.
- **DO NOT** apply to vegetation, areas of standing water, or to frozen soils.
- **DO NOT** apply in drainage channels or on slopes steeper than 3:1 (H:V).
- **DO** restrict vehicle and pedestrian access to the treated area to avoid damage.



Photo credit: Vital Environment

Soil binders are cost-effective and can be rapidly applied to disturbed areas to protect soil from erosion.

Always read the label carefully and do not apply to slopes steeper than 3:1 (H:V)

Hydromulch: Specialised equipment and experienced operators are required for hydromulching, including appropriate soil testing and preparation. Suitable subsoil and topsoil are fundamental to successful revegetation using hydromulch. Spreading topsoil from your protected stockpiles (see page 47) prior to hydromulch treatment will increase application success. The sprayed-on hydromulch 'slurry' will provide initial surface stability, and once the vegetation is growing, medium to long term soil stability will be achieved.

- Contract an experienced operator to apply hydromulch to your site.
- Ensure that the soil has been tested and site conditions considered to determine the right hydromulch product for your site.
- Prepare the correct soil moisture levels and surface conditions for the selected product.
- Install upslope drainage or berms to control runoff and scouring potential.
- With the specialised equipment and experienced operators, apply the product evenly with multiple passes.
- Restrict vehicle and pedestrian access to the area to avoid damage.
- Water as required to promote and maintain suitable germination and plant growth.

Maintaining the controls:

Soil Binder: Soil binders have a limited design life that can be affected by weather and traffic. Protect the application area from vehicle and pedestrian access to avoid damage. Re-application may be required – check the label for the suggested application frequency.

Hydromulch: Inspect the application area regularly to ensure sufficient moisture to maintain plant health. Water, weed, fertilise, and mow as required. After rain inspect the area to check for erosion or movement of mulch. If erosion is observed or runoff displaces more than 10% of the mulch media, fix your drainage controls to prevent further erosion or movement, and reapply hydromulch.