



Applying wetting agents is a simple affair.



Granular wetting agents

Granular wetting agents are mixed into the soil to improve the water-holding capacity. They allow the soil to take up water when it rains or after watering and release it to the plants as the soil dries out.

Some commonly available brands include Wettasoil, Multicrop, Yates, Hortico and Saturaid.

Granular wetting agents should be applied dry to the surface of the soil, beneath any mulch, or mixed into the soil at planting time. This is the best option for large garden areas and can also be used for planter boxes and pots. Granular wetting agents may be applied to lawns but, as with granular fertilisers, should not be applied just before mowing the lawn, as they will be sucked up into the mower's catcher and wasted.

Water-storage crystals act as a reservoir in the soil and exchange water with the soil as the moisture content changes. They are unique among wetting agents because they contain the supply of water when they are applied, while others treat the soil to allow it to take up water more effectively. This makes crystals a good solution for periods of time when watering is not possible, like when you are away from home on holiday. Water storage crystals are widely available from garden centres and hardware stores.

Water crystals need to be soaked in water before applying and then either mixed into the soil immediately surrounding the root ball of new plants or placed around established plants just under the soil. Water crystals that come in applicator packages should be applied as explained in the instructions, and usually stay in the container in situ.

Because of the mass and expense of water crystals, in terms of water-saving solutions, they are best for pot plants, feature plants in gardens and small areas. They continue to take in water for a few years before they biodegrade.

Liquid wetting agents

Liquid wetting agents contain dissolved chemicals which soak into the soil and coat the soil with a surfactant that allows water to stick to soil particles.

This type of wetting agent is the most common organic product available, with products like Eco-hydrate, and Multicrop EcoWet. Other

NEVER SAY DRY

Soil wetting agents — what are they and do you really need them?

Story: Jacki Brown

You've been watering your garden regularly and the garden has even had some rain. So why are your plants still not thriving and why do they look slightly wilted?

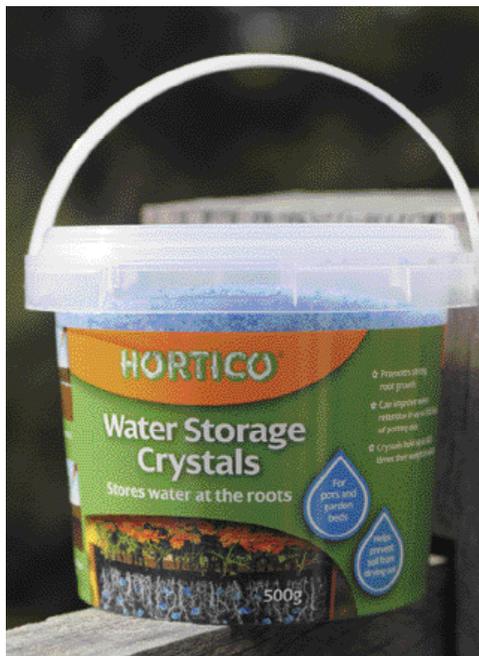
If you get down to ground level you might find that your soil is dry, in fact, because it is hydrophobic, which means it doesn't hold water. But don't despair as there are several ways to remedy water repellent soil and make sure it stays healthy so it won't dry out in future.

The good old-fashioned way to re-wet the soil is to really get your hands dirty and knead the water into the soil as if you're making bread. Of

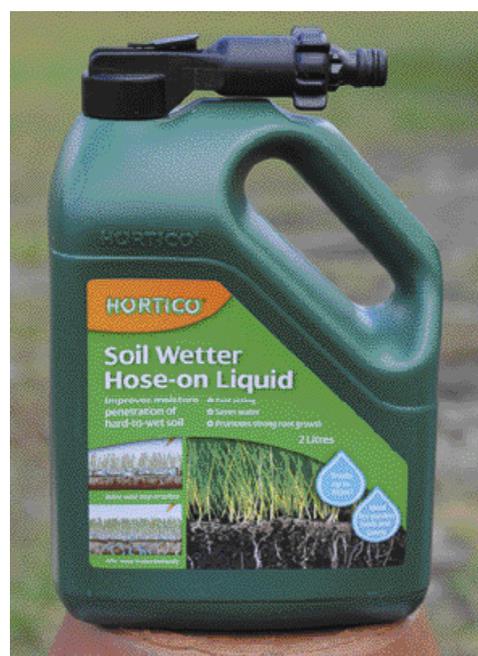
course, that would take a lot of time, especially if your whole garden needs to be treated.

If you don't have a great deal of time, the simple solution is to apply soil-wetting agents. These come in organic versions as well as the more widely-known chemical soil wetters. You can even concoct your own organic DIY wetting agent.

There are three main forms of wetting agent: dry granular types, gel crystal form and liquid form. Some wetting agents are also sold in specific application packs, such as gel spikes or containers.



There is a broad choice of products.





non-organic liquid wetting agents include Hydrflo, Wettasoil Hose-on and most other common brands.

The application of liquid wetting agents involves watering the required area evenly with the solution. The label of any liquid wetting agent will outline the amount you need to use. These instructions should be followed, as overuse can result in harm to the plants, wastage of the product and possibly buildup of harmful material in the soil.

Liquid wetting agents are good for larger garden areas and newly planted gardens and are probably the best wetting agent for lawns.

The various application packs use the above type of wetting agents in different ways, including gel spikes, Rainbird water crystal cartons and tubes and hose-on packs.

Frequency of application

How often you reapply wetting agents depends partly on how severely hydrophobic the soil is and the importance of the garden area. In rarely frequented gardens, there is less priority for the plants to look perfect.

Generally, wetting agents should be applied as often as fertilisers — about two to four times a year in most garden situations. Granular form is the slow-release way to apply a wetting agent, while liquid form works more immediately but isn't as long lasting.

The use of chemicals in gardens is always a last-resort solution. Begin with a healthy organic content and sensible plant selection and you can avoid much of the need for chemicals, which brings peace of mind for yourself, your family and pets, as well as being good for the environment.

There are organic options for treating hydrophobic (or water-repellant) soils. Most of the wetting agents commercially available contain chemicals. When you do use chemicals in the garden, you should stick to the directions on the labeling to avoid excess chemicals building up or running off into our waterways.

Some instances where wetting agents shouldn't be used are over very large areas, or as the only soil improvement method for hydrophobic soil. You should take a holistic approach to the garden and ensure you have compost-rich, decompacted and mulched soils and that you have chosen appropriate plants for the climatic conditions. ■

Jacki Brown is a landscape technician who works for Sydney-based landscape design company, ecodesign.

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TO IMPROVE WATER RETENTION

- Mulch often with well-composted leaf and bark mulch rather than woodchip, which can create negative conditions in the soil by increasing fungal activity and robbing the soil of nutrients.
- Level garden beds. Flatter garden beds retain moisture better than sloped ones as the water doesn't run off as quickly.
- Dig and decompact the soil before planting, incorporating compost or organic matter as you go along.
- Keep lawns healthy and water retentive by aerating, adding organic fertiliser, supplying correct drainage and breaking up large lawns with garden beds so that the lawns get some shade in hot conditions.
- Create your own organic soil-wetting agent using algin, a compound made from seaweed.