

Brown Patch in Lawn



A healthy lawn is always less likely to be affected by pests and diseases but from time to time, problems will occur that will show up as brown patches. Diagnosing what is causing the patches requires a little bit of detective work with the first step being to walk out on to the lawn, take a seat and then stop and smell the roses. And whilst there, take a good look at what is really going on both above and below the surface of the lawn

Determine what is causing Brown Patches

Home owners often think the remedy is to give the lawn more water or to apply more fertiliser but these solutions can often make the problem worse and on very rare occasions are they ever the solution. In fact, even pesticides are not always going to be the remedy.

Going through a process of elimination is the most effective way of identifying what is actually causing the brown patches. Below are some of the most common problems in WA lawns and if the solution isn't here, bring a photograph and a sample of the lawn into Better Pets and Gardens and we will be able to help solve the problem.

Is there a dog in the garden?

Urine from dogs contains urea, a form of ammonia that converts to nitrates which kills plants. Small doses of urea can be good for the lawn but when concentrated and applied in one spot, the result is a brown spot in the centre with a dark green ring of grass

around the outside. Not everyone has the time to run after a dog and hose the area off every time that it pees and not all dogs can be trained to go in a more suitable location so the result is often a green lawn covered in brown patches.

Changing the dog's food to one with high-quality protein in it will mean that less nitrogen is eliminated through the urine and faeces. Also consider replacing one of the dog's meals with a high quality canned food as the extra water will help to dilute the urine. The team at Better Pets and Gardens will be able to advise on the best food to help solve this problem.

To stop the urine from being so potent, mineral based 'rocks' are available that are placed in the dog's drinking water. These filter out impurities from the water such as ammonia and nitrates, thereby making the urine less likely to burn the lawn. These are very safe for dogs and can sit in the water for several months before they need changing.

Oversowing the brown patches with lawn seed will help to repair any existing dead patches caused from dog urine but, for a very fast cover, a new product is now available at Better Pets and

Gardens. This green coloured sand contains a fertiliser and soil conditioner designed to encourage the grass to regrow whilst camouflaging the brown patches in the lawn.

Is the water being applied evenly?

Although the sprinklers may be on for long lengths of time, if the water isn't getting to the roots, areas of the lawn will die or start to brown off.



The first thing to consider is the reticulation itself and whether the water is even reaching the area of lawn that has a brown patch. The easiest way to check this is by putting similar sized containers

with straight sides every 50 to 100cm in a grid pattern then leaving the sprinklers on for the normal period of time. If the water is being applied evenly the containers should each have an equal amount in them. If they don't, the sprinkler heads will need to be adjusted, repaired or replaced and then the same test repeated to make sure that the application of water is even.

Remember to take into account that even a strong breeze can blow the water from some sprinklers away from the lawn and onto brick walls and paths. It is possible to retrofit sprinkler heads that produce larger droplets in streams that are less likely to be affected by wind.

Is the water getting to the roots

WA is notorious for having sandy soil that is water repellent meaning that no matter how much is applied, it just won't soak through the soil surface and down to the root systems of the plants. This occurs because, over a period of time, the individual grains of sand become coated with a waxy oil and when the soil dries out, this substance won't allow the water to penetrate through. Instead, the water either pools until it evaporates or it finds the least path of resistance which is often down the road or into other areas of the garden.



Testing this in lawn is as simple as running the hose for a couple of minutes to see if the water runs away or just sits on the surface. It is quite possible for one patch of lawn to be water repellent but a section just a couple of metres away to be perfectly fine but this isn't close enough for the roots of the grass to access. Digging down about 10cm after the reticulation will also show whether the water has managed to get through to where the roots are.

If the water does not soak into the soil, a wetting agent can be applied which will dissolve the oily coating on the sand allowing the water penetrate. With WA's sandy soils, wetting agents need to be applied between two and four times a year to lawns and gardens as the oily coating continuously builds up and the problem just keeps coming back.

Is the lawn covered with thatch?

If the sprinklers are applying water and the soil has been treated with a wetting agent, the problem may be that the lawn has a build up of thatch.

Thatch is the living stem material of the lawn combined with dead and decaying organic matter and these combine to form a dense mat over the surface of the grass. The lawn becomes spongy, has dry spots and looks scalped after mowing. It can be caused by overwatering and over-fertilising with high nitrogen products and the only solution once it has occurred is to carry out de-thatching.



To de-thatch a small area, use a metal rake to firmly scratch over the surface in a grid pattern and then aerate the area by spiking it with a garden fork. Larger areas will need a power dethatcher which can be hired or a professional turf contractor can complete the job. Dethatchers have flat steel blades which cut into the soil removing the thatch and aerating the lawn underneath. The amount of waste material that is removed in the process is quite amazing and whilst the lawn will look terrible straight after, in just a few weeks it will be back looking better than ever. The best time to undertake dethatching is when the grass has the best chance to recover so avoid very hot weather and aim for late spring or early autumn.

Buffalo, kikuyu, bent grass and couch hybrids are particularly prone to getting a cover of thatch but the best way to prevent it is to water as little as possible, use low nitrogen, slow release fertilisers and to raise the lawn mower height but mow more frequently.

© Better Pets and Gardens rev 2018

Is lawn beetle present in the soil?

African black beetle or 'lawn beetle' are actually present in most lawns across WA but only become a problem if their numbers get out of control. It is the white grubs and not the adult beetles that are the most voracious feeders but of course both need to be controlled to break the breeding cycle.

African black beetle and their larvae start feeding from October until May, cutting the grass off at the roots so that it can be easily pulled up in clumps and this is the first clue that lawn beetles are the problem and that it's not just a dry patch.



It is easy to test if African black beetle is present in the lawn. Pour a bucket of soapy water over the brown area and wait for the beetles and the white larvae to surface. Or, cover the area with a wet hessian bag overnight, lifting it in the morning to see if the beetles are hiding underneath.

Fast acting lawn beetle and grub killers are now available that are easy to apply and gentle on the environment. These can be applied in a granular form or with a hose-on applicator and the best results are achieved by applying a wetting agent to the lawn first so that the chemical soaks right down to the roots where they live. A second application may be required in a few weeks to effectively control the beetles and break the breeding cycle. If the affected area is near a neighbour's lawn, it would be ideal to speak to them about treating their side of the lawn at the same time thereby reducing the possibility of the numbers increasing again.

Are lawn grubs eating the leaves?

Lawn grubs is a collective term for army worms, sod web-worm and cutworms, all of which are the leaf eating caterpillars of an adult moth. Their presence in the lawn is evident by brown, straw-like patches where it looks like the lawn has been mown right down to the crown. They feed at night during summer and autumn, eating the green



leaves of healthy lawn in particular.

Army worms and cutworms can be green, brown or black and sometimes have stripes running the length of their body. They are quite fat and can be between 35mm and 50mm long. They will curl up if disturbed and although the damage may start in small, irregular spots, they will quickly move across the lawn potentially eating through it in just a few days.



Army Worm



Cut Worm

Products containing dipel, a naturally occurring bacteria, can be effective at controlling these caterpillars but it needs to come into contact with them so should be sprayed in the evening when they are active and on the surface of the lawn. Respray in 5 to 7 days as more caterpillars are bound to hatch.

Is a fungal disease damaging?

Dollar Spot is the most common fungal disease found in WA lawns, especially couch and saltene, and is most obvious in humid weather from summer to early autumn. It looks like dry spot but the areas are smaller, about the size of a US dollar coin (or Australian 50 cent piece), and can join together to cover quite a large patch. Early in the morning, fine webbing can sometimes be seen over the area and small black or dark brown spots appear on the grass stems.



Fungal diseases such as Dollar Spot are caused by weak lawn, humid weather and thatch build up but they can be treated with a fungicide containing the active ingredient mancozeb. Prevent fungal diseases returning by watering only in the morning so that the grass can dry out during the day.