



Rockin E Gardening Handouts

Tips and Suggestions for 'Year-Round' Gardening

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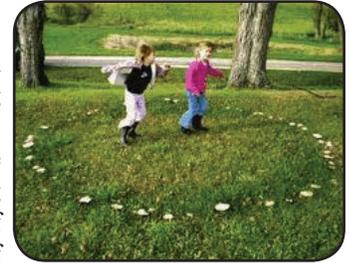
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Lawn Disease - Fairy Ring

The name '*Fairy Ring*' comes from an old myth and from superstition that mushrooms growing in a circle represent the path of dancing fairies. So, you can see that fairy rings in lawns are not something new, they have been around for many, many years.

Fairy rings may appear in a variety of ways in lawns. There are four kinds of fairy rings. 1. The most common is a large ring of dark-green grass, with no mushrooms. 2. Another type contains a ring of mushrooms as well as the ring of stimulated, dark green grass. 3. A third type contains only a ring of mushrooms, with no evidence of unusual grass growth. 4. Occasionally a fairy ring will produce an arc of dead grass. The dead grass is usually caused by lack of water, not by the fungus killing the grass. The fairy ring fungus creates such a dense mat that it does not allow water to penetrate. So, the grass dies from the lack of water, even though you are watering your lawn regularly.

Typically the rest of your lawn, both inside and outside of the ring, is not affected by the fairy ring fungus and does not show any signs of unusual growth. Unfortunately, there is not a good control for fairy ring, but there are a few things you can do to help minimize the unpleasant appearance.



No one is exactly sure what stimulates fairy rings to start forming or where the fungus spores initially come from. However, some believe that gasses from decaying material buried in the soil, such as old stumps, roots, or lumber buried during construction projects, stimulate the fungus spores to start growing. When the conditions are right, toadstools show up in the dark green ring. These toadstools produce more fairy ring spores that can spread to other areas of your yard, to your neighbor's yard or even to other areas of the city. Depending on wind conditions, birds, and other creatures, fairy ring spores may inadvertently be carried to many other locations.



Fairy ring fungi do not attack grass directly, they usually just break down organic matter in the soil. As a result of this process, nitrogen is released that the grass is able to use, which forms the dark-green ring.



If the fairy ring fungi become very dense, they prevent water from penetrating into the soil. The grass then dies of dehydration which is the main cause of dead grass in the arc. However, fairy ring fungi can also deplete the soil of some nutrients and it can produce toxic levels of hydrogen cyanide, which can also kill your lawn.

The mushrooms that you see within the fairy ring are the fruiting structures of the fairy ring fungi, they are not the actual problem. Remove the mushrooms to prevent children from eating them, and to prevent them from producing more spores to spread.



Fairy rings may appear in one spot in the yard and not in another because of unknown sources of organic materials that are buried in the soil such as a rotting stump, a dead root, a buried log, or even buried lumber. Once this organic material finally decomposes, the fairy rings will often disappear on their own. However the decomposition process can take many years to complete.

Unfortunately there is not an easy control for fairy ring but you can help manage the problem, to at least lessen the visual effects. Do not fertilize as heavily, but fertilize more frequently, so all the grass will grow at the same rate. This procedure effectively hides the problem but does not eliminate it.

Aerate occasionally and deep-water the rings often, to help water penetrate down into the fairy ring. Extra water in the fairy ring itself can help keep the grass from dehydrating.



The only sure control for fairy ring is to dig up the entire ring, find the organic food source, and remove as much of the fairy ring fungi as you can.

Sound easy? Not so! The fairy ring fungi are usually 18" to 24" deep in the soil. They can also be a few inches inside or outside of the actual ring. If you try removing fairy ring fungus in this manner, be sure that you do not contaminate other



areas of the lawn by spilling soil.



Over a period of years, the dark green rings may continue to grow larger and larger in diameter until they eventually disappear. Some years the fairy ring may stay

dormant and not produce any affects and other years it may produce its infamous dark green ring of grass, with or without mushrooms.

Chemical Controls.

Unfortunately, the control of fairy ring is very difficult. There are some chemicals that are listed for use on fairy rings, but do not expect very good results. Over 60 species of fungi have been associated with fairy ring symptoms in turfgrasses, and each species varies in their sensitivity to fungicides.

Also, you cannot just spray a fungicide on top of the lawn to control fairy rings. The fungicide must come in contact with the actual fungus to kill it. Remember, the fairy ring fungus can be 12" to 24" deep in the soil.

Sometimes the best control for fairy ring is to just fertilize the rest of your lawn more frequently, so it matches the dark rings - and then wait for the fairy ring to go away on its own.

Another way to help control fairy ring is to make holes about a foot apart all the way around and throughout the ring - about 12" to 18" deep. Fill the holes with a dish soap and water solution (5 to 10 tablespoons per gallon of water). The cheapest dish soap usually works the best.

After letting the dish soap soak for an hour or two, fill the holes with a solution of water mixed with a fungicide. A fungicide may provide some limited control of the fairy ring fungi, but don't expect great results.

Consan is one fungicide that lists the possible control of fairy ring. Consan is also listed to use on other lawn diseases, flower diseases, and on many houseplant diseases. It can even be used inside the house to disinfect laundry rooms, showers, floors, bathrooms and other hard surfaces.

Chemical controls may need to be reapplied two or three times each summer for two or three years before you see any results.

Organic Controls.

Sometimes the best way to get rid of bad bacteria, or fungus, is by adding good bacteria. **Dr. Earth Lawn Fertilizer** is an organic, slow release lawn food. It contains many beneficial bacteria that can help your lawn grow much better than by just using traditional chemical fertilizers. A side benefit is that these beneficial bacteria may also help to eliminate



some of the many harmful bacteria and fungus problems. This fertilizer will not cure lawn diseases, but it may help prevent them, and it will definitely help your lawn recover more quickly. Unfortunately, organic controls are often much slower getting rid of problems than chemical controls. However, they usually give excellent long term controls, sometimes eliminating the need for future chemical controls.

One more possible control for fairy ring is to stimulate good bacteria, already in the soil, to multiply. An increase of beneficial bacteria may help combat the unwanted fungus problems in the soil.

Make holes about a foot apart all the way around, and through out the entire ring - about 12" to 18" deep. Fill the holes with a dish soap and water solution (5 to 10 tablespoons per gallon of water). After letting the dish soap soak for an hour or two, put a one or two tablespoons of **Humic acid (Garden Soil Activator)** down each hole. Also, apply Humic acid over the surface of the entire lawn. Repeat this treatment once or twice a year for 2 or 3 years.

Humic acid is a natural product that helps stimulate micro organisms to grow. It also helps chelate many minerals and nutrients already in the soil. This helps plants utilize the nutrients and helps other organisms multiple faster.

Please read our handout '**Garden Soil Activator**' for more information about humic acid and its benefits.

