

# bepesticidefree problem pests : Fairy Rings

## What are Fairy Rings?

Fairy Rings are the result of the presence of a fungus in your lawn. The most common cause of fairy rings is the fungus *Marrasmius oreades*. The mycelium of the fungus grows underground in a network, spreading outwards. When a substrate is evenly composed, like in a lawn, the mycelia move outwards evenly in a circle. Occasionally, these mycelia send up fruiting bodies (mushrooms) at the outer limits of the mycelium which contain the spores that allow the fungus to reproduce. This is the reason for the circular appearance of the mushrooms. If the mycelium grows above the roots of a grass, it can prevent the grass from obtaining any moisture. This in turn causes the grass to dry out and die leaving large circles of dead or dry grass.



## Prevention

Fairy rings are very difficult to deal with once they are established; therefore prevention is extremely important in order to minimize their damage.

1. Water in the early morning instead of in the evening. Fungus like a moist environment to grow in. Watering in the morning allows time for the soil to dry a bit during the day.
2. Frequent use of fertilizers can leave your soil with an abundance of nutrients in it. This becomes an ideal situation for a fungus to grow and thrive. Instead, try using compost on your lawn. (See *10 Steps For a Healthy Lawn*). This will slowly break down during the summer, providing a constant supply of nutrients instead of a sudden saturation of nutrients.
3. Remove the thatch build-up in your lawn in spring. This layer of dead grass can add to the humidity of your lawn and can prevent your soil from drying.

## Mechanical Control

Fungicides will not work to kill the mycelium in a fairy ring. This means that not only are pesticide-free ways a safer alternative, but they are the **only** effective way to control fairy rings. In an isolated fairy ring, take the following steps to help inhibit and even eliminate the fairy ring.

- **Poke and Soak:** Use a pitch fork, or similar tool, to make many holes in the affected soil area, about 2 inches apart and 10 inches deep. Then, using a soapy water solution (a small squirt of dish soap to 4L water) saturate/soak the area. This gets water to the grass roots. Adding nutrients to the solution (for example, mixing in some manure or compost) can also help. The soap inhibits the fungus. The water and nutrients strengthen the grass which helps choke out the fungus.
- If the fairy ring is close to a sidewalk, simply let it grow. Often times, once a fairy ring hits a sidewalk or some other obstacle such as a flower bed, they will simply die.
- If it is reasonable, you may wish to just dig up the infected area. Bag and remove the soil, ensuring that it does not spill onto other areas of the soil.

In nature, if two mycelia meet each other, they will release toxins that will kill the other mycelium. This usually results in the death of both. Take advantage of this natural behaviour in lawns. If you have more than one fairy ring, try removing the sod and then tilling and spreading around the affected soil. The mixing of the mycelium should lead to the death of all of them.

## Organic Control

Ecological friendly fungicides are available. The active ingredient in most of these products is sulphur. These products can be used to control and kill the mushrooms. They will not, however, kill the mycelium and therefore the mushrooms will return again.



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Information from: <http://agbio.usask.ca/yards-fairy>, <http://grandpacliff.com/Fungi/FairyRings.htm>.

Images taken from: <http://www.grn.es/amjc/bolets/morea.jpg>, <http://grandpacliff.com/Fungi/FairyRings.htm>.