

Early Curative Fairy Ring Trial

During the summer months, Michael Fidanza conducted a research in order to evaluate the effects on fairy rings after the use of a fungicide called 'Consan'. This research was conducted at Pennsylvania State University, Michael Fidanza is widely recognized as the fairy ring expert. In the trial Consan was tested as a stand-alone product and it was tank-mixed with an Aqua Aid product; OARS. This is the pure OARS consisting of a maleic acid which will dissolve the dried out organic acids on the soil colloids.

Although the goal of the research was to test Consan, remarkably Fidanza also tried the OARS product as a stand alone product in order to curate the fairy rings.

In order to evaluate the trial, Fidanza used the Fairy Ring Severity Index. All the treated plots had a scoring on this index between 3 and 4.

Fairy Ring Severity Index :

- 1 = no symptoms
- 2 = type II, slight
- 3 = type II, moderate
- 4 = type II, severe
- 5 = type II, very severe (progressing into type I)
- 6 = type I, slight (emerging from type II)
- 7 = type I, moderate
- 8 = type I, severe
- 9 = type I, very severe

The fairy ring species was identified as *Agaricus campestris* (meadow mushroom), which is common in fairways and roughs on golf courses in the Mid-Atlantic region. The type II fairy ring symptoms in the affected turf was a noticeable darker green color and slightly more stimulated/more top- growth compared to unaffected turf areas nearby.

The site consisted of mostly tall fescue (75%), *poa pratensis* (20%), and perennial ryegrass (5%) of unknown cultivars. The site has a history of fairy ring symptoms during the typical hot and dry periods during July and August.

OARS was applied twice to the trial plots with an interval of 28 days. The application rate was the equivalent of 22,3 L / Ha per application.

The results of the trials are in the table below, the numbers indicate the scoring on the fairy ring severity index.

Date	27-06	02-07	06-07	09-07	16-07	23-07	30-07	06-08	13-08	27-08	10-09
Days after 1 st app.	-5	0	4	7	14	21	28	35	42	56	70
Days after last app.	-5	0	4	7	14	21	28	7	14	28	42
Consan	3.5	3.5	1.0	2.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0
Consan + OARS	3.5	4.0	2.0	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
OARS	3.5	4.0	2.5	1.5	1.5	2.0	2.0	1.0	1.0	1.0	1.0
Untreated	4.0	4.0	5.0	5.0	5.5	5.5	5.0	5.0	3.5	1.5	1.0

The first application of all products was on July 2nd, after 4 days the first observations were made, all treated plots saw a significant reduction in the fairy ring severity. The applications which included the fungicide Consan saw a reduction towards a severity score of 1.0 – no symptoms.

The fairy ring severity on the plots treated with OARS was reduced from 4.0 to 2.5 in 4 days, after 7 days this dropped further to 1.5. This means the fairy ring went from severe symptoms to somewhere between no symptoms and slight symptoms.

On July 30 the second application was made, causing all the treated plots to drop to 1.0 (no symptoms) on the index.

The index of the untreated plots increased at the start of the trial, reaching a high of 5.5 on the index. At that stage the Type II fairy ring is progressing into a Type I fairy ring – with all corresponding problems. During late August and into mid-September, FR symptoms sub-sided as the turf began to ‘grow-out’ and recover naturally.

Besides the positive conclusions regarding Consan, the results for the pure OARS applications are also very positive and significant. After two applications with an interval of 28 days the severity of the fairy rings went down from ‘severe’ to ‘no symptoms’.

The results of this study by Michael Fidanza suggest that one can minimize the effects of fairy rings without the use of a chemical. The Aqua Aid OARS technology was proven to have a significant positive effect on curing fairy rings.

Please note the application rate of the OARS was set at 22,3 L / Ha, the normal application rate for OARS is 13 L / Ha. Further research needs to be conducted if a lesser amount also has a positive effect on the fairy rings.

The full research including all the raw data is available for those interested.