Compost Specialist Compost Tea Trial 2007

Beginning in 2006 OSU/Lane County Extension Service Compost Specialists began conducting a three-year observation trial testing the effectiveness of aerated compost tea in reducing the incidence of black spot on three varieties of roses; Tropicana, Olympiad ™ and Peace. Roses were planted at five locations, three private and two public locations. Each location has a control group and an experimental group. In 2007 owing to some losses there were a total of 39 roses in the trial.

The roses are grown in raised beds. Each bed was planted with one set of Tropicana, Olympiad and Peace roses. The soil was a blended mix of commercially produced loam, garden compost and sand with excellent drainage. Prior to planting the soil was amended with an all purpose organic fertilizer. Each rose was mulched with alfalfa pellets and watered in well.

Beginning the first week of June 2007 and continuing until the last week of September 2007, the roses were sprayed with a foliar application of aerated compost tea at two-week intervals. Compost Specialists brewed the tea with a brewer of their own design. The tea was microscopically assessed once a month. The same tea was applied at all locations. All locations followed the same schedule of cultural care.

Data legend for 2007
C - control (no tea applied) E - experimental (tea applied)
T-Tropicana O-Olympiad ™ P- Peace

The following chart shows the percentage average total of disease at each location in the trial.

Location	T (C)	T (E)	O (C)	O (E)	P (C)	P (E)
Extension	4	3.1	1.6	.4	3.4	5.6
GrassRoots	1.3	1.3	.2	.7	.5	.55
Private 1	7.4	6	8.6	6.6	6.2	5
Private 2	2.5	1.6	2.6	1.4	died	2.2
Private 3	1.6	1.7	2.6	4.8	3.5	5.6

The following are the average percent totals of disease for all roses in the trial in 2007.

All T (C)	All T (E)	All O (C)	All O (E)	All P (C)	All P (E)
2.7	1.9	3.16	2.4	2.65	2.9

The following chart shows the comparison between 2006 and 2007 for percent total incidence of disease for all roses in the trial.

Year	All T (C)	All T (E)	All O(C)	All O (E)	All P(C)	All P (E)
2006	.68	1.02	0.4	1.8	0.8	2.68
2007	2.7	1.9	3.16	2.4	2.65	2.9
Average between 2006 and 2007	1.37	1.59	1.60	2.1	1.36	2.79

Observations

- The tea was brewed every two weeks using a blended mix of 50% commercially made compost and 50% commercially made vermicompost. Additives included molasses and liquid kelp. The tea was brewed at 72^{O}F for 16-18 hours. Approximately one gallon of tea was used to spray the experimental group of roses.
- All surviving roses at all locations showed good growth and bloom the second year.
- Two roses at the Extension location died in the early spring, causes unknown.
- Roses in locations with shade suffered from powdery mildew. Compost tea did not seem to affect powdery mildew.
- One private location observed that the roses sprayed with tea at that location seemed healthier overall than those that were not sprayed. They had glossier leaves and more blooms overall.
- At one location deer ate all of the leaves and blooms. Plants grew new leaves and rebloomed.
- Two of the three test groups in 2007 showed a slight improvement in incidence of disease over plants that were not sprayed. The difference was not statistically greater.
- The average between 2006 and 2007 still showed control group doing better than the experimental group.

Data compiled by Cindy Wise December 2007

To write for more information on the OSU/Lane County Extension Service Compost Specialist tea trial go to:
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