



Flowering Plants Ltd

'Irrigation Systems and Solutions'



Winter Assay by HRI – Efford

Sample 00/A866: collected 12/12/00 processed 15/12/00	
RESULTS OF WATER TESTS ON SAMPLE COLLECTED FROM SUTTONS NURSERIES IN WEEK 50 2000	
Water sample	Reservoir
Fluorescent Pseudomonads (cfu l⁻¹) on King's B	3.3 x 10⁵
TOTAL FUNGUS (cfu l⁻¹)	1216
<i>Fusarium spp</i>	0
<i>Trichoderma spp.</i>	0
<i>Tests for Pythium and Phytophthora</i>	
Bait tests (% infected)	100%*
Plate tests (cfu l⁻¹)	16*

* *Pythium* sp.

Sample 00/a866 Week 50.

1. Sample size 1 litre.
2. Ten Baits of Rhododendron leaf.
3. *Pythium* sp. not identified @ 12.1.'01.

Notes by FPL:

1. Wettest weather for 250 years. Drains off site overwhelmed by heavy rain.
2. Crop repeatedly standing in water for several days.
3. Beneficial Pseudomonads reduced to "normal" level. (Compare with summer measurement overleaf).
4. No sign of disease in any crop up to 10.1.'01. Roots dormant.
5. No sign of disease in any crop up to 30.06.01.

Summer Assay by HRI - Efford

Sample 00/A838: collected 18/09/00 processed 19/09/00	
RESULTS OF WATER TESTS ON SAMPLE COLLECTED FROM SUTTONS NURSERIES IN WEEK 38 2000	
Water sample	Reservoir
Fluorescent Pseudomonads (cfu l⁻¹) on King's B	1.2 x 10⁶
TOTAL FUNGUS (cfu l⁻¹)	1280
<i>Fusarium spp</i>	0
<i>Trichoderma spp.</i>	0
<i>Tests for Pythium and Phytophthora</i>	
Bait tests (% infected)	0
Plate tests (cfu l⁻¹)	96*

* Slow growing *Phycomycete* – probably not *Pythium* or *Phytophthora* but a closely related species. Sub-cultured for identification

1. *Fluorescent Pseudomonads* suppress diseases. They are present here at about twenty times the normal level. However, they can also cause slimes in irrigation systems. Since 1975, we have advised customers to clean drip lines with hydrogen peroxide at appropriate intervals.
2. *Total Fungi* are predominantly saprophytic, with no proven role either as pathogens or in disease suppression. Usually found at 80 – 100, they are present here at 1280. This indicates a very active bio-film.
3. *Pythium and Phytophthora* tend to release infective zoospores in flushes. Regular tests would be needed to prove that they are absent. However, so far we at FPL and our customers have seen no disease at all in 16 months on seven sites.

N.B. Plants surrounded by pathogens will become liable to attack if subjected to water stress. Once that happens, they will show symptoms of disease. There is no substitute for good husbandry.

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