

## POINSETTIA ROOT ROT STUDIES - 1974

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Poinsettia root rot studies were conducted in the horticultural greenhouses during the 1974 season. In mid-October root cuttings of Anette Hegg Supreme were obtained from Nick Leben of Leben's Greenhouses and potted into 5-inch pots using steamed 1:sand, 1:soil, 2:peat moss containing 1 2/3 lbs. of super phosphate/cu. yard of soil. The potting media was previously inoculated with Pythium and Rhizoctonia, two common root rotting pathogens.

Immediately after potting, the plants were drenched with various fungicides or combinations of fungicides using 6 oz. for each 5-inch pot. A portion of the plants were drenched only once throughout the growing period, while another set of plants received a total of 3 drenches applied at monthly intervals. Eight plants were drenched with each of the fungicides used in the test. The plants were fertilized every 3 days with 400 ppm of 20-20-20 for the first 2 weeks and then at weekly intervals with the last application being December 11.

The results indicate that monthly drenches beginning after the rooted cuttings have been potted, provide better control of root rots than a single drench (Table 1). It is important to note that the use of Dexon 35WP, Truban 30 WP or Truban 25 EC only, as a single or monthly drench, did not provide good

control. Dexon and Truban are quite specific against water molds and they should be used in combination with other fungicides (Benlate, PCNB) for control of fungi other than water molds, i.e. Rhizoctonia, Fusarium.

None of the fungicides used in the study had any adverse effects on plant height. However, plants drenched monthly with the various fungicides were fuller than those plants receiving only one drench (Table 1).

Table 1. Effect of various fungicides on control of poisetia root rot, 1974.

<u>Treatment - One drench only 9/22</u>	<u>*Disease Rating 12/28</u>	<u>Plant Height (inches)</u>
Control	4.0	7.3
Banrot 15-25 WP 8 oz	2.0	8.1
Captan 50 WP 16 oz	3.4	7.5
Dexon 35 WP 8 oz	3.0	9.3
Dexon 35 WP 8 oz + PCNB 75 WP 4 oz	2.4	8.0
Dexon 35 WP 8 oz + Benlate 50 WP 8 oz	2.5	9.5
Truban 30 WP 8 oz	3.4	8.5
Truban 30 WP 8 oz + PCNB 75 WP 4 oz	2.6	9.0
Truban 30 WP 8 oz + Benlate 50 WP 8 oz	2.5	9.0
Truban 25 EC 8 oz	3.0	8.3
Truban 25 EC 8 oz + Benlate 50 WP 8 oz	2.8	9.0
Truban 25 EC 8 oz + PCNB 75 WP 4 oz	2.6	9.0
 <u>Treatment - Monthly Drenches</u>		
Control	3.9	6.9
Banrot 15-25 WP 8 oz	1.7	9.5
Captan 50 WP 16 oz	3.2	9.0
Dexon 35 WP 8 oz	2.8	10.0
Dexon 35 WP 8 oz + PCNB 75 WP 4 oz	1.8	11.2
Dexon 35 WP 8 oz + Benlate 50 WP 8 oz	1.8	11.0
Truban 30 WP 8 oz	3.1	8.0
Truban 30 WP 8 oz + PCNB 75 WP 4 oz	2.2	9.5
Truban 30 WP 8 oz + Benlate 50 WP 8 oz	1.9	9.6
Truban 25 EC 8 oz	2.8	8.7
Truban 25 EC 8 oz + Benlate 50 WP 8 oz	1.8	9.0
Truban 25 EC 8 oz + PCNB 75 WP 4 oz	2.0	9.6

\* Disease rating 0 = no root rot; 5 = severe root rot  
Rate of fungicide per 100 gallons water

The results also indicate that it is difficult to choose any single fungicide or combination of fungicides that will provide the best control. Therefore, we are recommending the use of any one of the following fungicides to be applied at monthly intervals beginning after the rooted cuttings have been potted.

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|----|-----------|----------------------|
| 1. | Banrot    | 8 oz per 100 gallons |
| 2. | Dexon     | 8 oz per 100 gallons |
|    | PCNB      | 4 oz per 100 gallons |
| 3. | Dexon     | 8 oz per 100 gallons |
|    | Benlate   | 8 oz per 100 gallons |
| 4. | Truban EC | 8 oz per 100 gallons |
|    | Benlate   | 8 oz per 100 gallons |
| 5. | Truban EC | 8 oz per 100 gallons |
|    | PCNB      | 4 oz per 100 gallons |
| 6. | Truban WP | 8 oz per 100 gallons |
|    | Benlate   | 8 oz per 100 gallons |
| 7. | Truban WP | 8 oz per 100 gallons |
|    | PCNB      | 4 oz per 100 gallons |