STORAGE OF BARE ROOT CUTTINGS OF SELECTED ORNAMENTALS

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These tests have been conducted to determine suitable storage conditions for ornamental crops. Selected fungicidal and bacteriacidal compounds were used in an effort to reduce growth during periods of storage.

Nine species of plants were tested: Taxus cuspidata, Juniperus virginiana, Buxus sempervirens, Deutzia lemoinei, Weigela floribunda, Forsythia fortunei, Abelia grandiflora, Hydrangea paniculata, and Azalea sp. These plants had been rooted from either ha6d or softwood cuttings, placed in nonperforated polyethylene bags, and stored at 32 and 40 Fahrenheit. Chemicals used to control storage molds were sodium o-phenylphenate .25 percent, borax 8 percent, karathane 1 percent, captan 5 percent, and Diphenyl-impregnated filter paper with.08 percent. The cuttings were placed in storage on October 16, and removed from storage on February 23 and April 19, at which times they were plotted and carried into the greenhouse to determine the number that would survive.

All plants stored with borax and thiourea failed to survive. Higher survival rates were found among those plants in which phenyl-phenate, biphenyl, karathane, and captan were used as the fungicides. Highest survival rates were found in those containers in which biphenyl was used as the fungicide. Plants stored at 40° were superior to those plants held at 32°. Stored plants failed to make growth comparable to that of the untreated plants.

On the basis of these experiments, storage of cuttings over a long period of time is not recommended. Some plants were particularly sensitive to the materials used for storage, and others failed to survive even though chemicals were not used. Hedera helix baltica failed to survive storage under any condition.