

# HISTORICAL USE OF CHEMICALS at the Bend Pine Nursery

<http://www.fs.fed.us/r6/centraloregon/projects/units/desso/nursery/adminrecord/chemicalsused.shtml>

## A. Chemicals Utilized to Control Fusarium Root Rot

1949	Aluminum Sulphate Chloropicrin (CP)
1949-50	CP Sulphur Dowfume W-85 (85% Ethylene Bromide) Dowfume MC-2 (98% Methyl Bromide & 2% CP) Shell DD Shell OS-840 Note: Adverse side effect has been removal of all mycorrhiza, a beneficial fungi.
1950-51	CP (greatly reduced due to mycorrhiza depletion) Allyl Alcohol
1952-53	Semesan Arasan Cersasan Firmate AL SO-4 FE SO-4 CP Sucrose, sodium fluoride, glucose, citric acid, oxalic acid Trichoderma, Aclinoomyces, Pencillium
1954-55	AL-2 SO-4 Aluminum Sulphate Nitrate Orthocide 50 - fungicide Ortho Seed Protector and Treater
1957-58	Orthocide 75 Terrilite Aluminum Sulphate Ammonium Phosphate Note: Denser planting and more water reducing soil temperatures have helped.
1961-62	Note: Intensive soil management has been best control for root rot. No chemicals used at this time.

1971-72	MBCP (methyl bromide and chloropicrin)
1972-73	Fumigation (?) Sulphur
1973-74	Fumigation (?)
1981-82	Note: 7,280 pounds of fumigant was used for 1982 sowing. MBCP (67%-33% ratio)
1984-85	Vapam (Metam-sodium) Dazonet (Badamid granular) MBCP
1985-86	Bravo 500 Daconil 2787 (chlorothalonil) Benlate 50-wp (benomyl) MBCP (67%-33%) ratio - 350 lbs per acre)
1986-87	MBCP Basamid Captan Benlate
1987-88	MBCP (treated by NW Pesticide Co. do to high hazard handling) Basamid
1988-89	MBCP Basamid Benlate Captan
1989-90	MBCP Benlate
1990-91	MBCP Benlate
1991-92	Bsamid OSU study - EPA requests info on impact if MBCP is prohibited.
1992-93	MBCP
1993-94	Benlate 50 DF Captan 50 WP Clearly 3336
1994-95	MBCP Basamid trial with MBCP for alternatives to MB.
1995-96	MBCP
1996-97	No fumigation - trials continue

## B. Chemicals Utilized to Control Weeds

1949	Shell #10 Standard Oil "Stoddard"
1951-52	Shell #10 CMU (DuPont) Kills to roots and inactivates soil for 6 months.
1952-53	Shell #10 no longer available - similar product, used as a paint base, was sprayed and proved more effective, but burned 2-0 transplant stock. 2-4D
1955-56	Orthocide 75 Orthocide 50 Dithane
1957-58	Orthocide 75 Terrilite Aluminum Sulphate Ammonium Phosphate
1958-59	Mylone Acti-Dione
1960-61	Mineral Spirits from Shell Oil Co.
1961-62	Mineral Spirits Amazine Trizone
1978-79	Dymid Mowdown
1981-82	Dymid Mowdown
1982-83	Dymid Mowdown
1983-84	Herbicide for weed control banned in Region 6.
1990-91	Goal 1.6E. Herbicide usage reinstated.
1991-92	Goal 1.6E
1994-95	Endurance Goal 1.6E
1997-98	Goal 1.6E

### **C. Chemicals Utilized to Control Pests (Birds, Mammals, Insects)**

1954-55	Two compounds from California Spray Chemical Co. to eradicate Doves.
1959-60	Morkit - to eradicate birds. Arasan - to prevent animal damage. Roplex - to prevent animal damage.
1960-61	Arasan
1961-62	Thiram - animal repellent
1986-87	Sevin - insecticide Trapping and shooting to control birds and rodents - no chemicals used.

### **D. Chemicals Utilized for Seed Treatment**

1955-56	Orthocide 75
1959-60	Captan 75 (fungicide)
1960-61	Captan 75 Anthroquinone (bird repellent) Mowit Latex
1961-62	Captan 75
1974-75	Dymid Enide

### **E. Chemicals Utilized as Soil Amendments**

1951-52	Test #1 Super phosphate & ammonium sulfate Super phosphate & sodium nitrate Super phosphate & lime Test #2 Super phosphate N-K Mercurine Carbon disulfide Test #3 P-162 in water solution
1956-57	Aluminum sulphate
1959-60	Commercial Fertilizer 16-20-0
1960-61	16-20-0
1961-62	16-20-0
1971-72	34-0-0, 27-12-0 & sulfur
1984-85	Change to organic amendments include sawdust, mint sludge, manure, and Bendorgunite (sewer sludge)
1985-86	Nitrogen (ammonium sulphate, urea & potassium nitrate)

1988-89	Sulfur 16-20-0-14 0-45-0 Peter's foliar fertilizer Elemental sulfur
1989-90	16-20-0-14 Calcium nitrate 21-0-0-24
1993-94	21-0-0-24 Magnesium sulfate Calcium nitrate 16-20-0-15
1995-96	5-50-17 Micorrhizae spores (Rhizopgen)
1996-97	Liquigrow Foliar phosphate 16-20-0-15

#### **F. Chemicals Utilized to Control Miscellaneous Problems**

1961-62	Rootone - to control transplant shock Rootex 59 - to control transplant shock Rutex W-3 - to control transplant shock
1988-89	Bravo 500 - to control Phoma, tip blight Benlate 50_W - to control Phoma, tip blight
1989-90	Bravo foliar drench - to control Phoma
1993-94	Bravo 720 - to control Phoma