

Horticultural Weed Control Report

2011

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Not intended or authorized for publication

Data contained in this report are compiled annually as an aide to complete minor crop registrations for horticultural crops and to communicate our results to colleagues and funding sources. Data are neither intended nor authorized for publication. Information and interpretation cannot be construed as recommendations for application of any herbicide or weed control practice mentioned in this report.

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TABLE OF CONTENTS

Weather Data

- ❖ 2011 rainfall and temperature data vi

Vegetable Crops

- ❖ Cabbage, Cauliflower, and Broccoli 1
Tolerance of transplanted brassica crops to pendimethalin and *s*-metolachlor
- ❖ Sweet Corn 5
Potential of a nitrogen utilization enhancer as an adjuvant for HPPD herbicides in sweet corn
Sweet corn tolerance and nutsedge control with HPPD herbicides
Sweet corn tolerance to HPPD herbicide combinations

Small Fruits and Nuts

- ❖ Grapes 17
Weed control in grape with sequential glyphosate and preemergence herbicide treatments
- ❖ Blueberries 21
Tolerance of blueberries to quinclorac herbicide
- ❖ Blackberries 24
Tolerance of Marionberries to Prowl and Dual Magnum
- ❖ Raspberries 26
Raspberry tolerance to quinclorac and clopyralid herbicides
- ❖ Hazelnuts 31
Weed and sucker control in hazelnuts
- ❖ Biological Control 36
Integrated tactics to control field bindweed in small fruit systems

Specialty Seed Crops

- ❖ Radish 40
Effects of clopyralid on radish grown for seed
- ❖ Flowers 42
Tolerance of flowers grown for seed to herbicides

Other

- ❖ Conifers 50
Conifer tolerance to Callisto herbicide with over-the-top applications
Weed control in forest tree nurseries
- ❖ Ornamentals 61
Liverwort control in container plantings

The Report

Results from vegetation management trials involving horticultural crops conducted during the past year are compiled and reported by faculty members of the Oregon Agricultural Experiment Station, the Oregon State Extension Service, and colleagues who cooperated from adjacent states along with local enterprises. This work was conducted throughout Oregon and involved many individuals.

The contributors sincerely appreciate the cooperative efforts of the many growers, university employees, and local representatives of the production and agrochemical industries. We also gratefully acknowledge financial assistance from individual growers, grower organizations, and companies that contributed to this work.

Information and Evaluation

Crops were grown at the experimental farms using accepted cultural practices (within the limits of experimentation) or trials were conducted on growers' fields. Most experiments were designed as randomized complete blocks with three to five replications. Herbicide treatments were applied uniformly with CO₂ precision plot sprayers. Unless otherwise indicated, preplant herbicide applications were incorporated with a PTO vertical tine rotary tiller operated at a depth of approximately two inches. After critical application stages, crops were irrigated with overhead sprinklers at weekly intervals or as needed.

Crop and weed responses are primarily visual evaluations of growth reduction, ranging from 0-100 percent with 100 as the maximum response for each rating. Phytotoxicity ratings are usually 1-10 with 10 being severe herbicide injury symptoms such as chlorosis or leaf deformation. Additional data such as crop yields are reported for some studies and may be reported in either English or metric systems.

Abbreviations

DAP	Days after planting
WBP	Weeks before planting
WAP	Weeks after planting
WAT	Weeks after treatment
PRE/PES	Preemergence herbicide application/preemergence surface
PPS	Post-plant surface
PPI	Preplant incorporated herbicide application
lb/A	Active ingredient per acre
no./A	Number per acre

2011 Rainfall and Temperature Data

Average daily minimum, maximum, and daily precipitation data were gathered from the Pacific Northwest Cooperative Agricultural Weather Network (AgriMet), a satellite-based network of weather stations operated and maintained by the Bureau of Reclamation. All AgriMet stations are located in an irrigated, agricultural area in order to provide relevant, accurate estimates for agricultural research and crop production purposes. Data points for 2011 (Fig. 1) are from the AgriMet station CRVO, located at 44° 38' 03"N / 123° 11' 24"E, elev. 230 feet above sea level.

Other sources of weather and climate information for this report include the following agencies:

National Climatic Data Center (NCDC, <http://www.ncdc.noaa.gov/oa/ncdc.html>)

Western Regional Climate Center (WRCC, <http://www.wrcc.dri.edu>)

Oregon Climate Service (OCS, <http://www.ocs.orst.edu/>)

According to the National Overview provided by the National Oceanic and Atmospheric Administration (NOAA), summertime temperatures in 2011 were unusually low for Washington and Oregon. Furthermore, precipitation in Oregon from Aug-Dec 2011 was the third lowest in the states 117-year recorded history.