

# **SURVEY OF CENTRAL OREGON FARMERS**

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## **Abstract**

A survey was taken of central Oregon farmers in order to better identify research needs for the area. Twenty four farmers were asked a set of six questions regarding their farming operation and what problems they thought needed research. Main research problems farmers mentioned were: identification of new crops, verticillium wilt control in mint, cover or green manure crops, winter-kill in carrots and mint, contamination of seed (especially in bluegrasses), and residue management in cereals and grasses.

## **Introduction**

Accurate identification and ranking of research problems is essential for applied agricultural research to be productive. Towards this end, a survey of central Oregon farmers was taken to better understand cropping systems in the area and to poll the farmers on what problems merit research.

## **Materials and Methods**

A random sample of farmers was drawn from the mailing list of the "Central Oregon Agriculture" newsletter. Six farmers each were interviewed from Madras, Culver, and Prineville, and three each from the Powell Butte and Terrebonne areas (24 farmers total). Farmers were asked the following questions in face to face interviews:

- 1.) Is your operation a part-time or a full-time one? What kind of irrigation system do you use?
- 2.) What crops are you growing and what rotations do you follow with them? (a table was included with this question to fill out planting dates, harvest, fertilizer use, weed, insect, disease problems, and main problems/limitations for each crop).
- 3.) What crops would you expand if you could and which would you drop first if a new crop became available? Why?
- 4.) How would you rank the problems listed earlier (in question 2)?
- 5.) What direction do you think future research at the COARC should take?
- 6.) What role do you think the experiment station should play in agricultural production in Central Oregon?

The first two questions more or less sought to characterize the farmer's situation and the latter four questions sought to list and prioritize researchable production problems. Answers were recorded by the interviewer. Putting all the surveys together, crops grown and problems faced were ranked according to how many farmers listed them as being important.

## Results

*Crops.* Crops grown were listed as follows (with number of farmers growing given in parenthesis): wheat (20); mint (16); carrot (12); blue grasses (12); alfalfa (11); garlic (8); sugarbeets (8); cereal/pea mix (6); potatoes (4); dry beans (2); onion (1); timothy (1); orchard grass (1); coriander (1); peas (1); popcorn (1).

Crops that farmers considered meriting expanded production included: mint (6); garlic (5); carrots (5); bluegrass (3); sugarbeets (3); coriander (2); and dry bean (1).

Crops that farmers mentioned as being less desirable included: wheat (5); mint (3); alfalfa (3); carrots (2); dry bean (1); and sugarbeets (1).

Several crops that were put in the "expansion" category by some farmers were also put in the "drop" category by other farmers (mint, carrots, sugarbeets, dry bean). Part of this may be a function of environment, where some growers are in a favorable environment for a particular crop (e.g. dry bean) and would like to grow more, while others may be in a marginal position to grow the crop and so consider it a risky venture. Also some farmers may have more experience with a given crop and have worked out the production problems and would be comfortable expanding it, while others may have difficulty with the same crop and so would shy away from it.

It seems that the crops grown may be split into several groups. Mint, carrot seed, bluegrass seed, and garlic are crops of high economic importance and probably pay the bills on many farms. Crops such as alfalfa and other forages, sugarbeets, peas, and dry bean are crops with lower economic value but grown on many farms. Crops such as potatoes and onions appear to be important for a few farmers. Wheat is grown by almost all, if not all, farmers but is basically grown as a rotational crop because it is relatively easy to grow and has an open market.

*Production Problems.* Farmers were asked to list the main problems encountered for each crop. The three most important problems for mint were considered to be: verticillium wilt, low market price, and insect problems. For carrot seed the three most important problems were: high production costs, getting good seed set; and stand losses over winter. For bluegrass the main problems listed were keeping seed free of contaminants (esp. Roughstalk bluegrass in Kentucky bluegrass), and low prices / late payment. For garlic the main problems were white rot and cost of harvest. For sugarbeets the main problems were costs of harvest and freight, frost damage, and weed control. For alfalfa the main problems were high water requirement, poor weather at curing, and marketing problems. For potatoes the problems listed were mostly a combination of low price and high costs. Lastly for wheat the problems given were poor market and dealing with straw and tillage after harvest. A complete listing of production problems is given in Table 1.

Farmers ranked research problems as follows (number of farmers follows in parenthesis):

1. Identification of new crops (5)
2. Verticillium wilt control in mint (5)
3. Work with green manure and cover crops (4)

4. Winter-kill in carrots and mint (2)
5. Contamination of seed (esp. Bluegrass) (2)
6. Residue management in grasses and cereals (2)

*Role of COARC.* Farmers said that besides conducting applied research, COARC should work to educate the public about farming. Also the point was made to keep the research work practical, and to include local farmers, extensionists, and researchers at other locations in the Pacific Northwest in the research process.

Table 1. Listing of weed, disease, insect, and overall problems for several crops as given by central Oregon farmers in a survey taken in the fall of 1998. Under each heading, problems are listed according to the frequency they were mentioned by farmers (those at the top of the list were mentioned most often, and those at the bottom were mentioned by only one or a few farmers).

Mint			
Weeds	Diseases	Insects	Main Problems
Groundsel Lambsquarter Pigweed Kochia Nightshade Canadian Thistle Bluegrasses Wild Oats Morning Glory Chinese Lettuce Shepherdspurse	Verticillium Wilt Stem Rot	Spider Mites Cutworms Mint Flea Beetle Nematodes Strawberry Root-Weevil Mint Root Borer Wire Worms Leaf Hoppers	Verticillium Wilt Insects Low Market Cost of Chemicals Cost of Fertilizers Cost of Irrigation Cost of Distilling Groundsel Lambs Quarter Winter Kill Labor Over-Production

Carrot			
Weeds	Diseases	Insects	Main Problems
Groundsel Nightshade Lettuces Mustard Thistles Volunteer Grasses Pigweed Water Grasses Rattail	Blight Fungus Mildew Xanthomonas	Lygus Bug Mites Cutworms Aphids Thrips	Winter Kill Excessive Chemicals High Production-Cost Pollination Blight Groundsel Fungus Acres-vs-Equipment

Garlic			
Weeds	Diseases	Insects	Main Problems
Groundsel Yellow Mustard Rattail Cheat Grass Lettuces Mustard Thistle Nightshade	White Rot Rust Mildew	Winter Mites	Harvest Cost Weather Bad Soil (white rot)

Alfalfa			
Weeds	Diseases	Insects	Main Problems
Mustard Grasses Groundsel Pigweed Lambsquarter Wild Oats Shepherdspurse Tansy Dandelions	Fusarium Wilt	Alfalfa Weevil Aphids Loopers Leaf Hoppers Stem Nematodes	Weather Marketing Problems Excessive Water Excessive Labor Cost Of Chemicals Fertility Annuals Wildlife

Sugarbeets			
Weeds	Diseases	Insects	Main Problems
Pigweed Lambsquarter Nightshade Kochia Wild Oats Groundsel Purslane Quackgrass	Mildew Curlytop Powdery Mildew	Cutworm Leaf Hopper	Harvest Cost Frost Weed Control Limited Acres

Wheat			
Weeds	Diseases	Insects	Main Problems
Wild Oats Russian Thistle Lambsquarter Pigweed Kochia Morning Glory	Rust Fungal	Russian Wheat Aphid Stem Maggot Winter Grain Mites	Poor Market Wild Oats Controlling Straw - after Harvest

Potatoes			
Weeds	Diseases	Insects	Main Problems
Pigweed Lambsquarter Nightshade	Blight	Potato Beetle Aphids Green Peach Aphid	High Production Cost Low Profit Cost of Chemicals Proper Tillage Weather Keeping Disease Free

Grass Seed			
Weeds	Diseases	Insects	Main Problems
Off Type Bluegrass Cheat Grass Rattail Fescue Groundsel Puncture Vine Quack Grass Carrot Seed	Powdery Mildew Rust Ergot	Winter Grain Mites Aphids	High Production Cost Low Market Price Contamination of other Grasses Getting Clean Seed Timely Payments Timing of Planting 3d yield Drops Ergot