

EWEB McKenzie Basin Agriculture Producer Survey

**Prepared By:
Community Planning Workshop**

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About the UO EDC

The University of Oregon Economic Development Center is a partnership between the Community Service Center, the Center for Sustainable Business Practices, the Sustainable Cities Initiative, and UO faculty. The UO Center provides technical assistance to organizations throughout Oregon, with a focus on rural economic development. The UO Center seeks to align local strategies to community needs, specifically with regards to building understanding of the benefits of sustainable practices and providing technical training to capitalize on economic opportunities related to those practices. The EDC is partially funded through a grant from the U.S. Department of Commerce, Economic Development Administration.

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INTRODUCTION

The Eugene Water and Electric board is interested in learning about perceptions of agricultural producers—farmers, ranchers, and other growers—in the McKenzie Watershed. EWEB received grant funding from the National Fish and Wildlife Foundation Governors Fund for the Environment designed to assist farmers in protecting water quality while increasing farm revenue through a variety of programs related to chemical storage and disposal, chemical use, access to local markets, energy and water efficiency, and access to natural resource conservation assistance. To gather data that is useful in designing and prioritizing assistance projects, the University of Oregon's Community Planning Workshop (CPW) administered and analyzed a survey of selected producers in the watershed. The results of this survey will be used by EWEB to assist in the administration of this grant.

Methods

CPW administered a mail survey to 457 growers in the McKenzie River Watershed. This list of growers was provided to us by EWEB. Twenty-two of these addresses were found to be inaccurate. CPW received 74 responses to the survey—a 16.2% response rate. In addition, CPW included slips that asked respondents for their contact information if they wanted more information on various topics discussed in the survey. CPW received 22 slips indicating respondents wanted more information.

SUMMARY OF FINDINGS

This section summarizes the results of the survey. Full tabulations of the survey results are presented in Appendix A. Appendix B presents a copy of the survey instrument.

Producer Characteristics

Succession

When asked what will happen to their land when respondents retire, the two most common answers were that their families will continue farming the land (43%) and the respondent does not know what will happen (41%). Many fewer respondents anticipated selling the land to another farmer (8%), keeping the land for non-agricultural use (3%), or selling the land for non-agricultural use (5%). Of the respondents who wanted more information from EWEB, 18% (4) wanted more information on farm succession planning.

Conservation easements

Only 10% of farmers have land in a conservation easement. However, of the twenty-two respondents who wanted more information from EWEB, half of those respondents were interested in conservation easements.

Ecosystem Services Markets

About half of respondents have heard of ecosystem services markets. When asked whether they have participated in ecosystem services markets, 11% stated that they have. Of the twenty-two respondents interested in learning more from EWEB, six were interested in learning more about ecosystem services markets.

Crop Types

Respondents were asked what types of crops they grow on their land. Only 4% of respondents grow row crops, while 18% grow orchards, 15% grow field crops, 28% have pastures, and 31% grow other crops, particularly timber but also ornamentals.

Farm Size

Many respondents farm 11 to 50 acres (39%) or over 50 acres (34%). Fewer respondents farm smaller parcels: 5% farm less than 1 acre, 8% farm 1 to 5 acres, and 13% farm 6 to 10 acres.

Agricultural Practices

On-Farm Energy Efficiency

The most common on-farm energy efficiency action taken was energy efficient lighting; 31% of respondents have done this. Less than ten percent of respondents have taken each of the following actions: installed variable speed

irrigation pumps, farm building insulation, use renewable energy, or taken other actions.

Forty-five percent of respondents have taken no actions to increase on-farm energy efficiency. Most of these respondents have not done so because of cost (61%) or because of other reasons, including perceived or actual lack of need to reduce energy use. About one third of respondents who supplied contact information because they want more information from EWEB want more information about energy efficiency.

Nutrient Management

Most farmers are taking some actions related nutrient management; only 11% reported taking no actions. The most common actions were proper timing of nutrient application, riparian buffers, and soil testing. Runoff control, conservation tillage, and composting were less common. The few respondents to the survey who are not taking actions related to nutrient management were kept from doing so about evenly due to cost and knowledge. Farmers' responses about where they received information about nutrient management techniques from was fairly evenly distributed between friends and coworkers, OSU Extension, USDA employees, other organizations, written and online sources, and other sources. In addition, many respondents noted that they have agricultural education and training in nutrient management. Six of the 22 respondents who want more information from EWEB were interested in more information about nutrient management.

Soil Management

About a quarter of respondents reported taking no actions related to soil management. The most common action that respondents have taken is using cover crops, but others used wind breaks, conservation tillage, and other methods such as pasture rotation, container growing, composting, and others.

Those who do not practice soil management do so mostly because of lack of knowledge about the techniques or because they believe soil management practices are not relevant to the type of agriculture that they carry out.

Those who have taken actions related to soil management learned about these techniques from a variety of sources, including friends and coworkers, OSU Extension, USDA employees, other organizations, and written and online sources. OSU Extension was cited as the most common resource for soil management techniques, with 31% of respondents mentioning this source. Of the respondents who are interested in more information, 32% want more information about soil management. In addition, 73% are interested in free soil sampling and analysis.

Water Conservation

Most respondents take some actions to conserve water, primarily irrigation scheduling and sprinkler maintenance. In addition, many farmers do not irrigate or use drip irrigation. Of those who do not take actions to conserve water, 58% cite cost as the barrier to taking these actions. In addition, 58% cite other reasons and 42% cite knowledge about these techniques.

About one quarter of respondents said that OSU Extension was their source for information about water conservation methods. Others cited friends and coworkers and other organizations besides Extension and the USDA. About one quarter of respondents who want more information from EWEB want to know more about water conservation.

Agricultural Markets

Sales

Respondents indicated that they sold to each of the buyers identified in the survey: regional distributors, national distributors, the commodity market, direct sales to consumers, regional processors, national processors, and other buyers. However, the most common market was direct sales to consumers, taking 45% of the total sales from respondents. Sales to regional distributors, regional processors, and other buyers were distributed approximately evenly between ten and 16 percent, while sales to national distributors, commodity markets, and national processors were much lower.

Most farmers surveyed sell to markets within Lane County; only 19% of respondents do not sell to these markets. Of those who sell within Lane County, 61% sell to local consumers, 28% to local processors, 15% to local distributors, and 17% to other local buyers, including ranchers, livestock actions, and charities. None of the respondents sold to local institutional buyers. Of the respondents who want more information from EWEB, 32% want more information on selling to local markets.

Barriers

Respondents were asked to identify barriers to selling to local buyers. Several respondents noted the following barriers:

- Transportation
- Lack of consistent buyers
- Lack of large volume local buyers
- Small sales are not profitable
- Competition from large producers
- Irrigation costs
- Farmers market restrictions
- Understanding of local market
- Time it takes to sell to local buyers
- Lack of local processors
- Government regulations

FoodHub

One third of respondents had heard of FoodHub. Of the two-thirds who had not heard of FoodHub, about one-third of those are interested in learning more about FoodHub. Of those who provided contact information to get more information, 23% wanted to know more about FoodHub.

Season Extension

Respondents indicated that 29% use season-extending technologies such as greenhouses and hoopouses. Just 3 (14%) of the respondents who provided their contact information to get more information were interested in season extension technologies.

Chemical Use

Most respondents said that they use chemical fertilizers; about one-fifth indicated that they do not use chemical fertilizers. Forty-four percent of farmers apply chemical fertilizers according to the directions on the packaging, 18% apply less than the directions on the packaging, 2% apply more than the directions on the packaging, and 18% apply using other guidelines. Similarly, 22% of respondents indicate they do not use chemical herbicides and pesticides. Of those that do use chemical herbicides and pesticides, 58% apply according to the directions on the packaging, 17% less than directions on the packaging, and 5% according to other guidelines.

About one-third of farmers practice integrated pest management (IPM). Of these farmers, most learned about IPM from OSU Extension. Many respondents also learned about IPM from other organizations. Of the respondents interested in learning more from EWEB, 27% were interested in learning more about IPM.

Only about 4% of respondents are certified organic, but 23% of respondents use organic practices. In addition, 4% are transitioning to organic. Two thirds of respondents do not use organic practices on their farms. Two growers indicated that they were interested in learning more about organic certification and provided their contact information to EWEB.

Most respondents agree or strongly agree that chemical use is necessary to raising crops on their farms (65%). Respondents generally do not see chemical use as a threat to their families (66% strongly disagree or disagree), a threat to farm workers (52% strongly disagree or disagree), or a threat to the environment (47% strongly disagree or disagree). Most farmers believe that chemicals are safe if applied properly (89%). Of the respondents who provided their contact information to get more information from EWEB, 14% wanted information about chemical disposal programs.

CONCLUSIONS

Responses to this survey suggest that farmers in the McKenzie Valley grow a diversity of crop types, distributed fairly evenly between orchards, field crops, pastures, and other crops. Most respondents farm over 11 acres of land. This survey indicates there are significant opportunities for EWEB to provide technical assistance, particularly in the areas of soil sampling and conservation easements, but also in energy efficiency, nutrient management, soil management, selling to local markets, IPM, and ecosystem services markets.

APPENDIX A: COMPLETE SURVEY RESULTS

Q-1 What actions have you taken to increase your on-farm energy efficiency?
Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Energy efficient lighting	31%	23
Variable speed irrigation pumps	5%	4
Farm building insulation	9%	7
Renewable energy use (solar, wind, etc.)	9%	7
Other (Please specify)	5%	4
None	45%	33

Other:

- Lack of need
- Not applicable to our small farm
- Just replaced incandescent w/energy efficient bulbs
- I use only what is necessary; can't afford to do otherwise
- Solar pump
- Clearing vegetation along banks so I can fish
- Greatly reduced irrigation
- We have no lights or heated building

Q-2 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Cost	61%	20
Knowledge about the techniques	33%	11
Other (Please explain)	55%	18

Other:

- First place we don't do much
- Pasture farmland leased
- I am growing timber which does not require energy (other than my physical labor)
- Would like to know more about water heating and lighting
- Don't fix what is not broken
- Farm only has 2 open air barns
- We do only grass hay
- No longer farming

- Nothing matches our farm
- Being farmed by another farmer
- Our farm (Christmas trees, nursery and timber) do not lend themselves to any of these
- Age
- I am not a farmer
- Our farm does not use much energy
- Not needed

Q-3 What actions have you taken related to nutrient management? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Runoff control	24%	18
Riparian buffers	46%	34
Soil testing	39%	29
Conservation tillage	16%	12
Proper timing of nutrient application	51%	38
Composting	28%	21
Other (Please specify)	14%	10
None	11%	8

Other:

- Lime app./ph balance
- Pasture grazing mgt (rotate grazing in fields)
- Organic farming
- Reducing nitrogen applications
- We have let branches from logging to go into the ground
- Bud capping/grass abatement with atrazine on new plantings
- Minimal road construction/use
- Clearing riparian zone – so I can fish
- Drip irrigation
- Split application of fertilizer, smaller amounts 4-5 times instead of once
- No longer farming
- Being farmed by another farmer
- Irrigation

Q-4 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Cost	50%	4
Knowledge about the techniques	50%	4
Other (Please explain)	63%	5

Other:

- Lack of need
- Not applicable to my situation
- Age

Q-5 If you have taken actions, where did you learn about these techniques?

	<i>Response Percent</i>	<i>Response Count</i>
I heard about them from a friend or co-worker	23%	15
I learned about them from OSU Extension	32%	21
I learned about them from a USDA employee	15%	10
I learned about them from another organization	23%	15
I learned about them from a written or online source	23%	15
Other (Please describe source)	26%	17

Other:

- Wilco
- 4th generation farming
- Already in place at the time of purchase
- NRCS, MWP, EPUD, while student at OSU
- Also a variety of books
- Thru experimental applications of brush/slash, pruning in winter water runoff sites
- I figured it out for myself
- We are trained & experienced agriculturists
- Other fishermen
- EWEB & Wilco
- I have a degree in forestry, specializing in silviculture – propagation and growing trees is the same principle as agriculture
- Thought of myself
- Family member
- Years of experience
- Various sources – don't remember all
- Greenhouse/bedding plant recommendations from plant brokers
- M.S., Soil Science, OSU

Q-6 What actions have you taken related to soil management? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Cover crops	31%	23
Wind breaks	11%	8
Conservation tillage	15%	11
Other (Please specify)	26%	19
None	26%	19

Other:

- Orchard, no tillage

- No till
- Pasture rotation
- Not applicable to our hay crop
- Pasture rotation/cross fencing
- Reduced fuel loads on acreage where thinning or basic pruning resulted in slash product eliminated by fire
- Well-stocked stand of timber, rapid reforestation. Minimal road construction/use.
- We don't till our soil; all plants are container grown
- Conservative tillage for Christmas trees
- Lime application for soil ph
- Drainage
- Planted clover to enhance nitrogen formation
- Rotate usage
- Composting leaves – arrange from city to deliver
- Hay & cow/calf oper.
- Age
- Not relevant to my crops
- We have greenhouse with only containerized plants
- Composting
- Rotate livestock

Q-7 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Cost	50%	4
Knowledge about the techniques	50%	4
Other (Please explain)	63%	5

Other:

- Lack of need – pasture
- No need
- Doesn't apply
- We do very little tillage – permanent pasture
- No need (2)

Q-8 If you have taken actions, where did you learn about these techniques?

	<i>Response Percent</i>	<i>Response Count</i>
I heard about them from a friend or co-worker	15%	8
I learned about them from OSU Extension	29%	16
I learned about them from a USDA employee	18%	10
I learned about them from another organization	22%	12
I learned about them from a written or online source	24%	13
Other (Please describe source)	16%	9

Other:

- Wilco
- 4th generation farming
- + books
- I mainly be involved in reforestation practicor involving USDA & USFS/ODF funding and oversight
- Oregon Department of Forestry
- We are ag trained and educated from OSU
- From practical use
- OSU & Wilco
- I have a degree in forestry, specializing in silviculture – propagation and growing trees is the same principle as agriculture
- Self
- Various sources
- Composting

Q-9 What actions have you taken related to water conservation? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Irrigation scheduling	32%	24
Sprinkler maintenance	32%	24
Conservation tillage	12%	9
Other (Please specify)	16%	12

Other:

- No irrigation
- Not applicable (dry pasture only)
- I do not irrigate
- Water timing
- Reduced irrigation
- Site studies for pond locations routing existing runoff for irrigation/fire suppression, i.e. dry hydrant site
- Minimal road construction/use. Riparian buffer, well-stocked timber stand, prompt reforestation post-harvest
- Use only what we need; hand water when possible
- We do very little irrigating
- Non-irrigation crop
- Underground piping
- Greatly reduced irrigation, floats on watering systems
- Drip irrigation (2)
- Dry farm
- We do not irrigate (2)
- Mulching, composting, cover cropping
- I do not irrigate the main crops, only home landscaping
- Don't irrigate

Q-10 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

	<i>Response Percent</i>	<i>Response Count</i>
Cost	58%	7
Knowledge about the techniques	42%	5
Other (Please explain)	58%	7

Other:

- Farm land leased out
- Irrigation practices limited to basic one acre homestead, woodlot, and produce
- The soil is our bread and butter of life – what would make you think that ag people wouldn't take the best care of it?
- Everything is fine
- Only irrigate pastures and garden – cost is very low
- Being farmed by another farmer

Q-11 If you have taken actions, where did you learn about these techniques?

	<i>Response Percent</i>	<i>Response Count</i>
I heard about them from a friend or co-worker	18%	11
I learned about them from OSU Extension	24%	15
I learned about them from a USDA employee	8%	5
I learned about them from another organization	15%	9
I learned about them from a written or online source	11%	7
Other (Please describe source)	19%	12

Other:

- 4th generation farming
- Pacific Ag
- Subscribed to organic farming and gardening since the 1970s
- Common sense
- The end result of the organic farm operations I have witnessed has ended in terrible, noxious weed infestation
- Don't fix what is not broken
- Attended OSU, ag major
- Osmosis
- Composting

Q-12 What markets do you sell to? Write the percentage of your total sales that go to each type of market. Circle the percentage of your sales that occur at each market type.

	<i>Average Percent of Sales</i>
Regional distributor	14%
National distributor	2%
Commodity market	9%
Direct sales to consumers	45%
Regional processor	11%
National processor	3%
Other	16%

Other:

- Least out pasture, 100%
- Self-consumed, family & friends, 100%
- Grow grass hay for my coes – barn full, 100%
- Because timber 97% sold to area mills. Posts/firewood/apples/grapes 3%. Firewood sold to area consumers.
- 100% local sawmills
- 100% of what I sell goes to my co-op, which is an international, regional, and national processor/distributor.
- 100% local farmer's market
- Own use
- 95% farmers market
- 20% family & home
- 100% our fruits & vegetables are given to the Mission/Food banks
- 50% cattle buyer
- 50% sales to retailers

Q-13 Do you sell to markets within Lane County?

	<i>Response Percent</i>	<i>Response Count</i>
Yes	81%	46
No	19%	11

Q-14 If yes, who do you sell to?

	<i>Response Percent</i>	<i>Response Count</i>
Local consumers	61%	28
Local processors	28%	13
Local distributors	15%	7
Local institutional buyers	0%	0
Others (please list)	17%	8

Others:

- Leased to local cattle ranchers

- Apples, grapes, and wood for heating, post rails and holly sprays and fir boughs
- Livestock auction
- Give to charity
- Auction
- Retailers
- Being farmed by another farmer
- Timber & Christmas tree growers

Q-15 What are the top three barriers exist to selling to local buyers? Please list barriers in the space below.

- None available.
- Transportation, loading.
- I sell lamb to one local buyer.
- Few local cattle ranchers.
- Lack of consistent returning buyers. Competition.
- Don't know local buyers.
- I have more customers than I can presently serve.
- There are no gates or other barriers on the road to East of Eden. I do not advertise to the public RB forest products that I have. It's been word of mouth since day one.
- Government regulations. State regulations. Local regulations.
- Small sales are not profitable due to the cost of processing, marketing, and food safety.
- Competition, unreasonably cheap competition from big box stores as Home Depot.
- We quit irrigation because electricity cost from EWEB was not fiscally profitable
- I sell all I can raise
- FM to restrictive
- Knowledge of markets. Difficulty of establishing market. Time.
- Local market for filberts is small and already heavily served. Local market for German Warmblood horses is small. Capital for filbert processing is also a barrier.
- Value.
- Making contact. Producing the right product. Transportation of product.
- Erratic sales. Price willing to pay for product. Use of prepared rather than raw product.
- Time it takes to develop markets.
- Advertising. Timing – communication.
- Over supply.
- Available & willing buyers. Moving product to market.
- Local buyers are not a large enough market. Our business comes from markets in Kentucky, Kansas, California, Oklahoma.
- Volume – will EWEB buy 200,000 lbs. of nuts? Storage.
- Advertising/signage. Time to focus on marketing.
- Not aware of local processor for large quantities of blueberries.

Q-16 Have you heard about FoodHub?

	<i>Response Percent</i>	<i>Response Count</i>
Yes	34%	19
No	66%	37

Q-17 FoodHub is an online application designed to help local and regional buyers and growers connect with each other. If you haven't heard about FoodHub, would you be interested in learning more about FoodHub?

	<i>Response Percent</i>	<i>Response Count</i>
Yes	33%	11
No	67%	22

Q-18 Do you use technologies to extend the growing season (greenhouses, hoopouses, etc.)?

	<i>Response Percent</i>	<i>Response Count</i>
Yes	29%	16
No	71%	39

Q-19 Do you use chemical fertilizers?

	<i>Response Percent</i>	<i>Response Count</i>
Yes, according to the directions on the packaging	44%	25
Yes, less than the directions on the packaging	18%	10
Yes, more than the directions on the packaging	2%	1
Yes, according to other guidelines	18%	10
No	19%	11

Q-20 Do you use chemical herbicides and pesticides?

	<i>Response Percent</i>	<i>Response Count</i>
Yes, according to the directions on the packaging	58%	34
Yes, less than the directions on the packaging	17%	10
Yes, more than the directions on the packaging	0%	0
Yes, according to other guidelines	5%	3
No	22%	13

Q-21 Do you practice integrated pest management (IPM)?

	<i>Response Percent</i>	<i>Response Count</i>
Yes	36%	19
No	64%	34

Q-22 If yes, where did you learn about IPM?

	<i>Response Percent</i>	<i>Reponse Count</i>
I heard about them from a friend	11%	2
I learned about them from OSU Extension	68%	13
I learned about them from a USDA employee	5%	1
I learned about them from another organization	42%	8
Other (Please describe source)	37%	7

Other:

- Wilco (2)
- As above IPM is an area that I have no experience
- Internet
- I have a BS in horticulture and have taken classes in entomology & plant pathology
- Composting

Q-23 Do you use organic practices on your farm?

	<i>Response Percent</i>	<i>Reponse Count</i>
Yes, I am certified organic	4%	2
Yes, but I am not certified organic	23%	12
I am transitioning to organic	4%	2
No, I do not use organic practices on my farm	69%	36

Q-24 What are your views on agricultural chemical use? Please mark the degree to which you agree with the following statements.

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neither Agree Nor Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Don't Know</i>	<i>Response Count</i>
Chemical use is necessary to raising crops on my farm.	9%	9%	16%	31%	34%	2%	58
I believe chemical use is a threat to my family.	28%	38%	14%	9%	9%	3%	58
I believe chemical use is a threat to farm workers.	24%	28%	22%	10%	10%	5%	58
I believe chemical use is a threat to the environment.	21%	26%	26%	12%	12%	3%	58
Chemicals are safe if applied properly.	10%	2%	7%	30%	49%	3%	61

Q-25 When you retire, what do you think will happen to your land?

	<i>Response Percent</i>	<i>Reponse Count</i>
My family will continue farming the land	43%	26
I will sell the land to another farmer who will continue farming	8%	5
My family will keep the land and it will be taken out of agricultural use	3%	2
I will sell the land and it will be taken out of agricultural use	5%	3
I don't know	41%	25

Q-26 Is any of your land in a conservation easement?

	<i>Response Percent</i>	<i>Reponse Count</i>
Yes	10%	6
No	90%	55

Q-27 Have you heard about ecosystem services markets, like those which pay landowners for wetlands, carbon, or other environmental services provided by their land?

	<i>Response Percent</i>	<i>Reponse Count</i>
Yes	52%	32
No	48%	30

Q-28 Have you participated in these markets?

	<i>Response Percent</i>	<i>Reponse Count</i>
Yes	11%	7
No	89%	55

Q-29 What do you grow on your land? Please write in the percentage of your land devoted to each crop type.

	<i>Average Percent of Crop Type</i>
Row crops	4%
Orchard	18%
Field crops	15%
Pasture	28%
Other	31%

Comments:

- Row crops (including many vegetables)
 - Veggies for home
 - None, just garden
 - 5% of area other than structures/concrete
 - 100% of blueberry crop on 50% of the land

- Orchard including fruit and nuts)
 - 5% apples, pears, plums, almonds, filberts, walnuts
 - Fruit trees & berry bushes
 - 5% Christmas trees
 - 100% blueberries
 - 100% hazelnuts
 - 50% walnuts
- Field crops (including grass seed, wheat, etc.)
 - 30% orchard, grass, hay
 - 100% hay (4)
 - Pasture
 - & hay (2)
 - 5 acres lying fallow
 - 100% for cows
 - Natural grasses
 - Lease pasture out
- Other
 - 95% timber
 - 7% home & yard
 - 5% house/outbuildings
 - 100% Chickens, goats, turkeys, ducks, geese
 - 60% hay
 - 100% Douglas Fir & other trees of that type
 - 100% timber
 - 10% mixed forest
 - 100% ornamental landscapes & houseplants, all container grown
 - 65% timber
 - 100% nursery
 - 100% trees (not Christmas, fir & pine for mature harvest)
 - 100% Timber and Christmas trees
 - Hay & raise beef
 - 100% Hay
 - 100% Forest products
 - 30% berries
 - 100% Christmas trees
 - 100% Christmas trees, timber, & olives
 - 40% flowers
 - 5% hardwoods
 - 100% nursery & tree seed logs & Christmas trees & timber
 - 80% hay
 - 75% in hay production
 - ½ acre of greenhouses and 1/10 acre of strawberries
 - 95% lawn/ornamentals other than structures/concrete
 - 35% timber
 - 10% hay
 - 100% livestock
 - 39% hi bred poplar trees

Q-30 How many acres of land do you farm?

	<i>Response Percent</i>	<i>Reponse Count</i>
Less than 1 acre	5%	3
1 to 5 acres	8%	5
6 to 10 acres	13%	8
11 to 50 acres	39%	24
Over 50 acres	34%	21

Q-31 Please share any other thoughts or comments related to agricultural practices in the space below.

- Free chemical removal has been important.
- We don't need to waste our time on a survey such as this. The money expended for this, thru a grant or otherwise, should be returned to the treasury to help pay off our government's debt. It is because of this and all the other wasteful public programs that this country is in such a bad financial shape. So get off the public dole and get a job that is productive!
- I would like to fence my land and have more "organic" sheep & cows roaming free beneath the timber and till 5 acres of organically grown vegetables. I already have organic fruit & nut trees but need help – lots of help, and a market to take it to. I would also like to invest in wind energy by erecting windmills on the hilly land behind me, and harness the power of the seasonal stream which flows past my house, which could provide the heat and light for greenhouses. I don't know how to begin on all of this.
- If I need info I go to OSU Exp. Station site & OSU exts.
- I want small farms to succeed.
- After learning that EWEB is the one trying to obtain 200' on each side of any water on my property, NO, I will not participate in ANYTHING promoted by EWEB.
- Since acquiring my current acreage I have signed up for agricultural programs with USDA to reforest areas of my farm that were deemed very underproductive, invasive brush and berry vines were not successfully removed, non-merchantable lumber, poles/posts and firewood also were harvested in treatment areas. Once 2-0 seedlings were planted, bud caps were applied, and a treatment spray was applied in grassy sites. Property is certified under WOSTOT.
- I am unable to answer your questions since this property is leased.
- I am a forest landowner, so some of these questions were not relevant. (I do raise goats as a hobby and for brush control on my Linn Co. tree farm.) I do not have any heirs, and I would very much like to leave my forest land to a land trust that will ensure it remains in forest forever, and will not be clearcut. However, everyone I have contacted including the McKenzie River Trust, are only interested in forest land that they view as critical habitat or watershed. Very frustrating!!
- I am not interested in any U of O or EWEB farm programs, especially after your 200 ft riparian setback land grab.
- Most farmers I know use modern techniques to reduce chemical use to the level needed to profitably farm. Thank heavens most are environmentally

conscious enough to prevent drift, runoff, and pollution of groundwater. Lane County, on the other hand, has allowed rampant residential development of the McKenzie River riparian area. Economic and environmental concerns will continue to improve agricultural practices, but the residential development of the McKenzie River riparian area will never be undone. Ineffective drain fields, chemical runoff for lawns, and less at wildlife habitat is the result. So much for Oregon and Lane County's land use regulations!

- This current plan to extend the protected zone along the McKenzie from 50'/100' to 200' has my neighbors really upset. What I'm hearing from them is 1) permission was given to purchase the land and to build on it – too late now for you to take it back; 2) most of us are homeowners, not farmers. Mowing grass by the river will have no negative impact on the environment; and 3) The McKenzie River is ours, not Eugene's not EWEB's. Our opinion is that Eugene can drink out of the Willamette and stay out of our back yards. Since EWEB took away our water rights (in a sneaky underhanded way) we will never trust EWEB or any program they offer. Ever.
- We are a family highly trained in forestry and agriculture and have worked very hard to be good stewards of our land and water resources all through our land. We have worked with OSU, Fish & Wildlife, and Forest Service people and let them do extensive water testing (and McKenzie Watershed) in our water. We do not understand why EWEB does not access these test results and also their own testing from water intake at Hayden Bridge. Do not place more threatening regulations on our operation and lands! Put your feet in our shoes and think about what this world would be like without food and fiber production. Your new efforts are flirting with disaster. We need some rural freedom.
- I will run my farm the way I want – if you want to tell me how to run my farm then buy it.
- We're not EWEB customers – we're EPUD. Our water is from a well 240' down. Planted 8,000 trees in 1992.
- The proper use of H₂O, fertilizer, and chemicals is both economically and environmentally necessary and is always practiced by myself.
- Chemical use: Due to public demand of the perfect product and the exorbitant cost of inputs coupled w/not-so-great end product income, the producer is left w/few options. Chemical use is a significant and growing problem in anything from medicine to household cleaners, to mfg processed, to etc, etc, etc. Chemical use is a problem nearly everywhere. Unless we're willing to eat scabby apples, take herbal medications, lower industrial productivity, eliminate plastic, etc, etc, chemical use will continue to be a major problem. I believe chemicals are a threat to the environment, our health, and our long-term way of life. Unfortunately, our society at nearly all levels is addicted to the point that consumer demand dictates their high use. We all need to do better starting w/public education to change their product demands & expectations. NOTE TO EWEB: We strongly oppose their efforts and intentions to establish a water quality overlay zone in rural Lane County. We have a long history of harmoniously working w/NRCS, McKenzie Watershed Council, OSU, Fish & Wildlife, among others. As such, we strongly resent the effort to expand their control at the expense of our rights – especially considering the inflammatory tactics they employed.

- 30+ years ago there was a thriving local market for row crops (for many years we had a contract to supply sweet corn to the “Mark and Save” and “Drive and Save” grocery stores. They were bought by the national grocery chains and closed, cutting off a valuable market for local produce. Now we’re moving back to the model that we eliminated 30 years ago. I guess if you live long enough things come back into fashion.
- I do not own a farm.
- Some changes occur annually. The pace is increasing which these are implemented. Profit and time are constraints which limit how quickly these adaptations occur. Our profit margins are more affected by weather than by planning in many years, but some aspects of our current operation mitigate weather.
- We own 1.5 acres. We have a garden, but no production farm.
- You need to look at the amount of bacteria that is produced from organic farms. You are focusing on chemicals and forgetting about a bigger threat. Many more people die from bacteria than chemicals. I have both organic crops and regular and pollute the river with much more from the manure runoff than the small amount of chemicals that I use. I am much more careful with the chemicals!
- We have completed an environment quality improvement project. Planting and irrigation system for trees and native plants. Establishing a drain system for barns to avoid runoff to Mohawk River. Composting. Building with enclosure to avoid runoff. Establishing individual pastures and watering troughs. We are managing for wildlife and land/environmental improvement. Neighbors utilize the forage.
- I run a few head of cattle on the ground & sell through the auction sales or for 4-H calves or locker meat. We are limited in what we can do now. My husband helps with the care of farm what he can. I am 83 and husband is 85 years. My daughter lives next door & helps out some when we need help.
- No agricultural operations here.
- Our farm raises show horses for breeding & showing in minor markets. We use the Senoqak Method of breeding. We are a major farm which reflects our championship ability.
- I am an 81 year old widow, so I don’t participate – the man that rents the pasture keeps weeds under control & does the irrigating.
- I believe this survey is simply a cover for an effort to determine what chemicals and practices that are employed by McKenzie Ag producers as part of the Lane Co./EWEB effort to put “drinking water protection” in place at the expense of local McKenzie Valley resources. I believe these restrictive controls will be put in place regardless of public input – it’s all just an act.
- What is your definition of a “farmer”? Is it someone who derives 100% of his or her income from farming? Maybe just 50%? Who are you trying to help? Landowners or farmers? In question Q-1 you ask about farm energy efficiency. You seem to have a lack of understanding about actual farm practices in the McKenzie Valley. You include variable speed irrigation pumps. How many farms do you think would be affected by this? To my knowledge very few. Do you know the total number of acres being irrigated in the McKenzie Valley? You ask about farm building insulation. Are you putting insulation in non-heated buildings like barns? Very few farm buildings are

heated. In questions Q-3, Q-6, and Q-9 you ask about “conservation tillage.” What is your definition of conservation tillage? As an Orchardist I have been in “no-till” for over 40 years, as have most of the Hazelnut orchards in the valley. What percentage of the land in agricultural production in the valley is tilled every year that would qualify as conservation tillage? Chemical use, now there is a loaded question. At a meeting of the Southern Willamette Agricultural Water Quality Management Area Plan on October 25, 2010, I asked Karl Morgenstern about water samples taken in March 2005. Of the 11 samples taken three showed pesticides. The three samples showing pesticides came from the culverts at 42nd, 52nd, and 69th streets in Springfield. Karl stated that there was a far greater chance of pollutants from urban areas like east Springfield entering the McKenzie than the sixty miles of rural community upstream. Karl also stated that EWEB spends between \$150,000 and \$200,000 on water monitoring a year. That is about \$1 per customer per year for the 200,000 customers that use EWEB water, not much. Perhaps you should allocate more of your budget to increased monitoring so that you have accurate information to move forward on. Ag is doing their part to help keep the water clean. It can be proven that the water quality from agricultural practices have improved over the years. Yes, we can do better. But where is the problem? And how bad is it? Again, I believe the format of your survey will fail to give accurate information on this topic. Your questions do not fit most farm practices in the McKenzie Valley. After the EWEB public relations nightmare and attempted land grab in the last month you would do well to establish pertinent information that can be scientifically evaluated in the future. Many more questions could be asked about this survey and what it will not answer. But then, are you really trying to get answers or only give the “perception” that you are. Is this “Perception Survey” a public relations survey with no real benefit to improving water quality? Try a survey that will provide factual information, not “perceptions.”

- A few thoughts: 1) Organics are not important for us other than as a marketing tool; 2) Would like to upgrade our greenhouses (i.e. more energy efficient), but we don't spend much money to do it.
- The language in this survey suggests that its creators believe synthetic pesticides and fertilizers are inherently bad for humans and the environment. I find this surprising given that IPM is included in one of the questions. Synthetic pesticides and fertilizers are harmful when misused, but management of them should focus on proper use rather than exclusion. Are there any other kinds of herbicides and pesticides than chemical? “Organic” does not mean “non-chemical.” “Pesticide” is not synonymous with “insecticide,” which is how you appear to be using it here.
- Not farming anymore.
- I farm in an environmentally sound fashion. Do things that cost but do not add to the bottom line. I do these things for the environment, and financial help from EWEB would be appreciated.
- I have doubts about EWEB's expertise in these matters. I called EWEB to get clarification on source of studies concerning CFLs. The staff energy conservation expert was unable to tell me what agency verified manufacturers' claims regarding life expectancy on CFLs, nor was she able to tell me the life expectancy at which a CFL becomes a positive rather than

negative resource choice. Since I have boxes of DFLs that lasted less than EWEB's promotional claims, I have concluded that EWEB is simply shilling for lighting manufacturers looking for a gullible "green" market.

- I am not an agricultural producer in the McKenzie Valley.

Are you interested in learning more about any of the programs mentioned in this survey? If so, please include your contact information below. Providing contact information will not affect the confidentiality of your answers:

I am interested in learning more about:

	<i>Response Percent</i>	<i>Response Count</i>
Energy efficiency	32%	7
Nutrient management	27%	6
Soil management	32%	7
Free soil sampling and analysis	73%	16
Water conservation	23%	5
Selling to local markets	32%	7
FoodHub	23%	5
Season extension techniques	14%	3
IPM	27%	6
Organic certification	9%	2
Chemical disposal	14%	3
Farm succession planning	18%	4
Conservation easements	50%	11
Ecosystem services markets	27%	6

APPENDIX B: SURVEY INSTRUMENT

EWEB AGRICULTURAL PERCEPTIONS SURVEY

Instructions:

Please take a few minutes to fill out the agricultural perceptions survey. The survey will provide the Eugene Water and Electric Board with information that will help administer grant funding designed to assist farmers in protecting water quality while increasing farm revenue. It should take about fifteen minutes to complete. When you're done, please return the entire survey in the provided postage paid envelope by November 8, 2010. Thank you for helping EWEB assist agricultural producers in the McKenzie Valley.

Your participation is voluntary. If you have any questions regarding the survey, please contact Bob Parker at the University of Oregon (541-346-3801).

AGRICULTURAL PRACTICES

Q-1 What actions have you taken to increase your on-farm energy efficiency? Mark all that apply.

- Energy efficient lighting
 - Variable speed irrigation pumps
 - Farm building insulation
 - Renewable energy use (solar, wind, etc.)
 - Other (Please specify)
-

- I have not taken actions related to on-farm energy efficiency

Q-2 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

- Cost
 - Knowledge about the techniques
 - Other (Please explain)
-

Q-3 What actions have you taken related to nutrient management?
Mark all that apply.

- Runoff control
- Riparian buffers
- Soil testing
- Conservation tillage
- Proper timing of nutrient application
- Composting
- Other (Please specify) _____

- I have not taken actions related to on-farm nutrient management.

Q-4 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

- Cost
- Knowledge about the techniques
- Other (Please explain) _____

Q-5 If you have taken actions, where did you learn about these techniques?

- I heard about them from a friend or co-worker
- I learned about them from OSU Extension
- I learned about them from a USDA employee
- I learned about them from another organization
- I learned about them from a written or online source
- Other (Please describe source) _____

Q-6 What actions have you taken related to soil management? Mark all that apply.

- Cover crops
- Wind breaks
- Conservation tillage
- Other (Please specify) _____
- I have not taken actions related to soil management.

Q-7 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

- Cost
 - Knowledge about the techniques
 - Other (Please explain)
-

Q-8 If you have taken actions, where did you learn about these techniques?

- I heard about them from a friend or co-worker
 - I learned about them from OSU Extension
 - I learned about them from a USDA employee
 - I learned about them from another organization
 - I learned about them from a written or online source
 - Other (Please describe source)
-

Q-9 What actions have you taken related to water conservation? Mark all that apply.

- Irrigation scheduling
 - Sprinkler maintenance
 - Conservation tillage
 - Other (Please specify)
-

- I have not taken actions related to soil management.

Q-10 If you haven't taken any of these actions, what is keeping you from taking these options? Mark all that apply.

- Cost
 - Knowledge about the techniques
 - Other (Please explain)
-

Q-11 If you have taken actions, where did you learn about these techniques?

- I heard about them from a friend or coworker
- I learned about them from OSU Extension
- I learned about them from a USDA employee
- I learned about them from another organization
- I learned about them from a written or online source
- Other (Please describe source) _____

AGRICULTURAL MARKETS

Q-12 What markets do you sell to? Write the percentage of your total sales that go to each type of market. Circle the percentage of your sales that occur at each market type.

Market	% of total sales
Regional distributor	_____
National distributor	_____
Commodity market	_____
Direct sales to consumer	_____
Regional processor	_____
National processor	_____
Other	_____
Total	<u>100%</u>

Q-13 Do you sell to markets within Lane County?

- Yes
- No

Q-14 If yes, who do you sell to?

- Local consumers
- Local processors
- Local distributors
- Local institutional buyers
- Others (please list) _____
- N/A

Q-15 What are the top three barriers exist to selling to local buyers? Please list barriers in the space below.

1. _____

2. _____

Q-16 Have you heard about FoodHub?

- Yes (skip to Q-18)
- No

Q-17 FoodHub is an online application designed to help local and regional buyers and growers connect with each other. If you haven't heard about FoodHub, would you be interested in learning more about FoodHub?

- Yes
- No

Q-18 Do you use technologies to extend the growing season (greenhouses, hoophouses, etc.)?

- Yes
- No

CHEMICAL USE

Q-19 Do you use chemical fertilizers?

- Yes, according to the directions on the packaging
- Yes, less than the directions on the packaging
- Yes, more than the directions on the packaging
- Yes, according to other guidelines
- No

Q-20 Do you use chemical herbicides and pesticides?

- Yes, according to the directions on the packaging
- Yes, less than the directions on the packaging
- Yes, more than the directions on the packaging
- Yes, according to other guidelines
- No

Q-21 Do you practice integrated pest management (IPM)?

- Yes
- No

Q-22 If yes, where did you learn about IPM?

- I heard about them from a friend
 - I learned about them from OSU Extension
 - I learned about them from a USDA employee
 - I learned about them from another organization
 - Other (Please describe source)
-

Q-23 Do you use organic practices on your farm?

- Yes, I am certified organic
- Yes, but I am not certified organic
- I am transitioning to organic
- No, I do not use organic practices on my farm

Statement	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't Know
Chemical use is necessary to raising crops on my farm.	1	2	3	4	5	DK
I believe chemical use is a threat to my family.	1	2	3	4	5	DK
I believe chemical use is a threat to farm workers.	1	2	3	4	5	DK
I believe chemical use is a threat to the environment.	1	2	3	4	5	DK
Chemicals are safe if applied properly.	1	2	3	4	5	DK

Q-24 What are your views on agricultural chemical use? Please mark the degree to which you agree with the following statements.

PRODUCER CHARACTERISTICS

Q-25 When you retire, what do you think will happen to your land?

- My family will continue farming the land
- I will sell the land to another farmer who will continue farming
- My family will keep the land and it will be taken out of agricultural use
- I will sell the land and it will be taken out of agricultural use
- I don't know

Q-26 Is any of your land in a conservation easement?

- Yes
- No

Q-27 Have you heard about ecosystem services markets, like those which pay landowners for wetlands, carbon, or other environmental services provided by their land?

- Yes
- No

Q-28 Have you participated in these markets?

- Yes
- No

Q-29 What do you grow on your land? Please write in the percentage of your land devoted to each crop type.

Row crops (including many vegetables) _____

Orchard (including fruit and nuts) _____

Field crops (including grass seed, wheat, etc.) _____

Pasture) _____

Other) _____

Q-30 How many acres of land do you farm?

- Less than 1 acre
- 1 to 5 acres
- 6 to 10 acres
- 11 to 50 acres
- Over 50 acres

Q-31 Please share any other thoughts or comments related to agricultural practices in the space below.

Thank you for filling out your survey!

Please mail your answers back in the postage-paid envelope provided.