



Land Use & Housing Committee

March 26, 2009

Rural-Urban Connections Strategy Update

Issue: Data, analysis and mapping of crops grown in the region are critical elements for determining rural economic viability as part of the Rural-Urban Connections Strategy (RUCS) project.

Recommendation: None, this item is information only.

Discussion: Staff has been collecting and analyzing crop data throughout the region over the last several months. This work will help the region better understand how the land is being used currently and provides a baseline for comparison of various possible land use patterns. The RUCS team has been working with farmers and ranchers via the state and local Farm Bureaus, agriculture commissioners, and other stakeholders to vet the data and get feedback on production and processing. The crop data have been assembled into a “landscape typology” for mapping purposes and for applying the PLACE³S model to rural areas. Large or unique crops, such as rice or almonds, are represented as individual “types,” while smaller crops are included in either a rotation type or a category type, such as stone fruit. Each landscape type has economic data behind it that is used to calculate indicators such as yield, value, and amount and cost of inputs. The RUCS team has also been working with a group of stakeholders researching local food systems in order to add the final piece to the typology, local-serving small farm operations. A list of the landscape types and an example of the data behind them are included as Attachment A. A draft map of the crop data that begins to illustrate the diversity of agriculture in the region will be presented at the meeting.

Approved by:

Mike McKeever
Executive Director

MM:DS:pm

Attachments

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WALNUTS Cost and Revenue Summary

Establish

	Cost Per Acre							
	Year	1st	2nd	3rd	4th	5th	6th	7th
Yield: Dry, In-Shell Pounds Per Acre		0	0	0	500	1,000	1,500	2,800
TOTAL PLANTING COSTS		3,399	37	0	0	0	0	0
TOTAL CULTURAL COSTS		432	473	502	635	860	1070	839
TOTAL HARVEST COSTS		0	0	0	197	238	275	373
Interest On Operating Capital @ 10.00%		416	29	27	22	35	43	29
TOTAL OPERATING COSTS/ACRE		4,247	539	529	854	1,133	1,388	1,241
TOTAL CASH OVERHEAD COSTS		290	290	290	288	290	290	290
TOTAL INTEREST ON INVESTMENT		762	761	761	742	759	759	759
TOTAL CASH COSTS/ACRE		5,291	1,590	1,580	1,884	2,182	2,437	2,290
INCOME/ACRE FROM PRODUCTION		0	0	0	425	850	1,275	2,380
TOTAL NET COST/ACRE FOR THE YEAR		5,291	1,590	1,580	1,459	1,332	1,162	0
NET PROFIT/ACRE ABOVE TOTAL COST		0	0	0	0	0	0	89
ACCUMULATED NET CASH COSTS/ACRE		5,291	6,881	8,461	9,920	11,252	12,414	12,325

Production

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Your Cost/Acre Cost
GROSS RETURNS				
Walnuts	5,400	lb	0.85	4,590
OPERATING COSTS				
Custom				561
Harvest Aid				20
Irrigation				130
Herbicide				70
Rodenticide				5
Fungicide				141
Insecticide				116
Fertilizer				100
Assessment				54
Labor				255
Fuel				51
Machinery Lube and Repair				26
Interest on operating capital @ 10%				33
TOTAL OPERATING COSTS/ACRE				1,561
TOTAL CASH COSTS/ACRE				1,906
TOTAL NON-CASH OVERHEAD COSTS/ACRE				1,326
TOTAL COSTS/ACRE				3,231
NET RETURNS ABOVE TOTAL COSTS				1,359

WALNUTS Establishment Costs

Year:	Cost Per Acre						
	1st	2nd	3rd	4th	5th	6th	7th
Yield: Dry, In-Shell Pounds Per Acre				500	1,000	1,500	2,800
Planting Costs:							
Nematode Sampling (10/100 acres)	4						
Land Preparation: Subsoil 2X, Disk 2X, Float 2X*	350						
Land Preparation - Fumigate (100%, untarped)	1,500						
Land Prep-Berms	12						
Land Prep-Weed: Preplant Strip Spray (Roundup)	9						
Trees: 65 Per Acre @ \$16.50 ea., (2% in 2nd year)	1,073						
Survey, Mark, Dig Holes & Plant	138	4					
Stake&PaintTrees	313	33					
TOTAL PLANTING COSTS	3,399	37					
Cultural Costs:							
Prune (Yrs 1-3 prune/train. Yrs 4+ prune, Yr 7- 9 prune alternate yrs)	50	50	56	180	240	300	75
Fertilizer: Nitrogen (Urea, Yr 1-2, UN32, Yr 3+)	34	49	50	63	75	100	100
Weed: Strip Spray (Prowl)	16						
Weed: Dormant Strip (Yr 1 -2, Goal, Prowl. Yr 3+, Goal Prowl, Roundup)	62	62	73	73	73	73	73
Weed: Mow Middles 5X	38	38	38	38	38	38	38
Weed: In-Season Strip Spray (Roundup, Yrs 1, 6, 7, 1X. Yr 2-5, 2X)	12	25	25	25	25	12	12
Irrigate (water& labor)	76	105	105	105	105	143	143
Vertebrate: Gophers (Bait)	10	10	10	3	3	3	3
Insect: Caterpillar (Dipel)	19	19	19				
Brush Disposal			11	11	11	11	5
Leaf Analysis				2	2	2	2
Insect: Codling Moth (Lorsban)					34	34	34
Vertebrate: Squirrels (Bait)					7	7	7
Disease: Blight (Kocide, Manex) 2X					112	112	112
Insect: Miscellaneous Insects (Omite for mites)						50	50
Insect: Husk Fly (Malathion, Nu Lure Bait)						50	50
Pickup Use	28	28	28	28	28	28	28
ATV use	45	45	45	45	45	45	45
Miscellaneous Labor	37	37	37	37	37	37	37
PCA Services	5	5	5	25	25	25	25
TOTAL CULTURAL COSTS	432	473	502	635	860	1070	839
Harvest Costs:							
Shake, Sweep, Pickup				150	150	150	150
HandRake				9	12	12	12
Haul Walnuts to Dryer				4	8	11	21
DryandHull				30	60	90	168
California Walnut Commission Assessment				4	8	12	22
TOTALHARVESTCOSTS				197	238	275	373
Interest On Operating Capital @ 10.00%	416	29	27	22	35	43	29
TOTAL OPERATING COSTS/ACRE	4,247	539	529	854	1,133	1,388	1,241
Cash Overhead Costs:							
OfficeExpense	100	100	100	100	100	100	100
Liability Insurance	7	7	7	7	7	7	7
Sanitation Costs	11	11	11	11	11	11	11
Property Taxes	77	77	77	76	77	77	77
Property Insurance	14	14	14	13	14	14	14
InvestmentRepairs	81	81	81	81	81	81	81
TOTAL CASH OVERHEAD COSTS	290	290	290	288	290	290	290
TOTAL CASH COSTS/ACRE	4,537	829	819	1,142	1,423	1,678	1,531
INCOME/ACRE FROM PRODUCTION				425	850	1,275	2,380
NETCASHCOSTS/ACREFORTHEYEAR	4,537	829	819	717	573	403	
PROFIT/ACRE ABOVE CASH COSTS							849
ACCUMULATED NET CASH COSTS/ACRE	4,529	5,358	6,178	6,897	7,470	7,874	7,026
Non-Cash Overhead (Capital Recovery):							
Buildings	77	77	77	77	77	77	77
FuelTanks	3	3	3	3	3	3	3
Shop/Field Tools	17	17	17	17	17	17	17
SprinklerIrrigation System	136	136	136	136	136	136	136
Land	419	419	419	419	419	419	419
Equipment	110	109	109	90	107	107	107
TOTAL INTEREST ON INVESTMENT	762	761	761	742	759	759	759
TOTALCOST/ACREFORTHEYEAR	5,291	1,590	1,580	1,884	2,182	2,437	2,290
INCOME/ACRE FROM PRODUCTION				425	850	1,275	2,380
TOTALNETCOST/ACREFORTHEYEAR	5,291	1,590	1,580	1,459	1,332	1,162	
NET PROFIT/ACRE ABOVE TOTAL COST							89
TOTAL ACCUMULATED NET COST/ACRE	5,291	6,881	8,461	9,920	11,252	12,414	12,325

*X = times (2X = two times)

WALNUTS Production Cost and Revenue

	Quantity /Acre	Unit	Price or Cost/Unit	Value or Your Cost/Acre Cost
GROSS RETURNS				
Walnuts	5,400.00	lb	0.85	4,590
OPERATING COSTS				
Rodenticide:				
Gopher Getter Ag-Wilco	0.25	lb	6.50	2
Ground Squirrel Bait - Wilco	0.60	lb	5.40	3
Irrigation:				
Water	42.00	acin	3.10	130
Fungicide:				
Kocide 101	30.00	lb	3.62	109
Manex	10.86	pt	2.97	32
Insecticide:				
Lorsban 4E	4.00	pt	6.29	25
AsanaXL	1.00	pt	17.33	17
Omite30W	5.00	lb	8.23	41
Malathion 5EC	4.00	pt	4.07	16
Nu Lure Bait	4.00	pt	4.08	16
Fertilizer:				
UN-32	200.00	lbN	0.50	100
Harvest Aid:				
Ethrel	2.50	pt	7.81	20
Herbicide:				
RoundupUltraMax	1.84	pt	8.58	16
Goal 2XL	2.50	pt	16.45	41
Prowl 3.3EC	3.13	pt	4.10	13
Custom:				
Shake, Sweep, Pickup	1.00	acre	150.00	150
Haul Walnuts	2.70	ton	15.00	41
Dry/Hull Walnuts	5,400.00	lb	0.06	324
PCA Service	1.00	acre	25.00	25
Leaf Analysis	0.04	each	30.00	1
Hedge Trees (1X/3 Yr)	0.33	acre	60.00	20
Assessment:				
CA Walnut Commission (\$0.0079/lb)	5,400.00	lb	0.01	54
Labor (machine)	9.30	hrs	16.56	154
Labor (non-machine)	8.16	hrs	12.42	101
Fuel - Gas	3.41	gal	2.80	10
Fuel - Diesel	17.93	gal	2.30	41
Lube				8
Machinery repair				18
Interest on operating capital @ 10.00%				33
TOTAL OPERATING COSTS/ACRE				1,561
NET RETURNS ABOVE OPERATING COSTS				3,040
CASH OVERHEAD COSTS:				
Office				100
Liability Insurance				7
Sanitation Service				11
Property Taxes				112
Property Insurance				39
Investment Repairs				88
TOTAL CASH OVERHEAD COSTS/ACRE				357
TOTAL CASH COSTS/ACRE				1,906
NON-CASH OVERHEAD COSTS				
(Capital Recovery)				
Buildings				77
Fuel Tanks				3
Shop/Field Tools				17
Irrigation System				136
Land				419
Walnut Establishment				565
Equipment				109
TOTAL NON-CASH OVERHEAD COSTS/ACRE				1,326
TOTAL COSTS/ACRE				3,231
NET RETURNS ABOVE TOTAL COSTS				1,359

RUCS Landscape Typology (Draft)

Category	Landscape Type
Tree and Nut Crops	Almonds Walnuts Stone Fruit Pears Apples Oranges Mandarins and other citrus Olives Other Fruits and Nuts Christmas Trees
Vine Crops	Wine Grapes
Field Crops	Processing Tomato Rotation <i>(Corn, Wheat, Processing Tomatoes, Alfalfa, Safflower, Sunflower, Dry Beans, melons, other vegetable crops)</i> Alfalfa Rotation <i>(Corn, Wheat, Alfalfa, Safflower, Sunflower, Dry Beans, melons, other vegetable crops)</i> Rice
Livestock	Pasture
Dairy	Dairy
Other	Nursury Fallow
Small Farm	