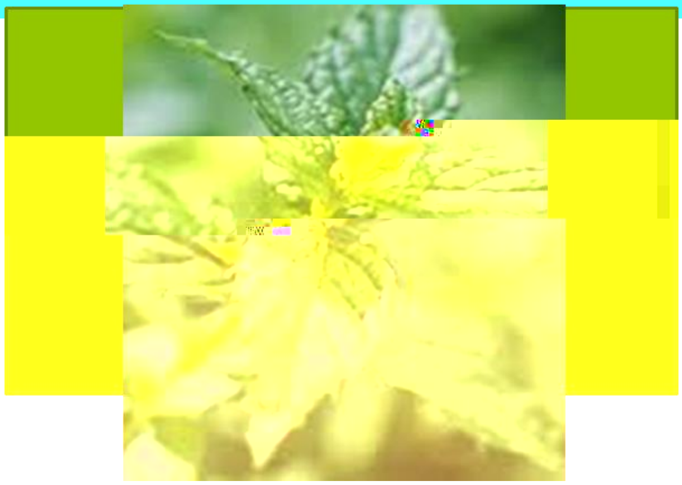

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2013 Enterprise Budgets for Southwest Idaho: Costs & Returns Estimates for Peppermint Establishment & Production Gravity-fed Irrigation, with Fumigation

Kathleen Painter, Neil Rimbey, and Jerry Neufeld[1]

Budget spreadsheets are available at the following link:
http://www.cals.uidaho.edu/aers/r_crops.htm

[1]Painter is a farm and ranch management specialist in Moscow, Rimbey is a range economist located at the Caldwell R&E Center, Neufeld is an extension educator in Canyon County.

kpainter@uidaho.edu
nrimbey@uidaho.edu
jerryn@uidaho.edu

University of Idaho
PO Box 442334
Moscow ID 83844-2334
(208) 885-6041

	Mint Oil Yield (lb/ac)	Mint Oil Price ($/cwt)	Revenue per acre ($/acre)	Total Operating & Ownership Costs (TC) ($/acre)	Returns over Total Costs (TC) ($/acre)	Total Variable Costs (VC) ($/acre)	Returns over Variable Costs (VC) ($/acre)
Years of full production = 3							
Year 1: Baby Mint Production*	90	$22.00	$1,980	$2,522	**$0**	$2,049	-$69
Years 2+ on: Mint, Full Production	110	$22.00	$2,420	$2,023	**$397**	$1,381	$1,039
Average Returns	105	$22.00	**$2,310**	**$2,148**			

Table 2. 2013 Input Price Assumptions for Establishing and Producing Peppermint, Southwest ID

Item	Unit	2013 Price/unit
Fuel:		
Diesel, offroad, bulk (gal)	gal	$3.60
Gas (gal)	gal	$3.70
Roots:		
Mint roots	acre	$250.00
Fertilizer:		
Nitrogen (dry)	lb	$0.66
Liquid urea (21-0-0)	gal	$2.43
Phosphorous (dry)	lb	$0.53
Potassium (dry)	lb	$0.50
Sulfur (dry)	lb	$0.25
Zinc	lb	$2.85
Boron	lb	$8.20
Micronutrients	lb	$22.00
Liquid sulfur (Super 6)	gal	$2.62
Custom Costs:		
Custom pesticide application, aerial	acre	$9.15
Custom ground sprayer	acre	$8.50
Custom fertilizer application, aerial	lb	$0.11
Custom fertilizer application, ground	acre	$8.00
Custom harvest & distillation	lb	$4.50
Custom fumigation	acre	$35.00
Pesticides & Adjuvants		
Basagran	pt	$12.50
Buctril	oz	$0.47
Chateau	oz	$5.84
Comite	qt	$22.21
Command	oz	$1.74
Coragen	oz	$6.00
Crop oil concentrate (COC)	qt	$3.66
Gramoxone	pt	$4.19
Intrepid	oz	$2.07
LI 700	oz	$0.30
Onager	oz	$2.35
Orthene	lb	$10.67
Poast	qt	$26.25

Table 2. 2013 Input Price Assumptions for Establishing and Producing Peppermint, Southwest ID

Item	Unit	2013 Price/unit
Prowl H2O	pt	$5.72
Quadris	oz	$2.38
Sinbar	lb	$45.40
Spartan 4F	oz	$4.33
Sticker	oz	$0.23
Stinger	oz	$5.80
Vapam	gal	$5.55
Volunteer	oz	$0.94
Labor[1]:		
Hourly machine labor	hour	$17.80
Truck driver labor	hour	$13.80
Hourly irrigation labor	hour	$12.60
Other labor	hour	$10.25
Interest:		
Operating Loan	percent	5.75%
Machinery Loan/investment	percent	6.00%
Miscellaneous:		
Cash rent	acre	$250.00
Marketing assessment	lb	$0.065
Overhead[2]	percent	2.5%
Management fee[3]	percent	5.0%

[1]Includes all applicable state and federal taxes.
[2]Covers legal, accounting, and utility fees. Calculated as percentage of operating expenses.
[3]Calculated as a percentage of gross revenue.

Table 3. Schedule of Operations for Baby Mint Following Grain, SW Idaho

No.	Month	Operation	Tooling	Materials/Service
1	Sept	Disc	145HP-WT, 15' offset disc	
2	Sept	Plow	145HP-WT, 4-bottom plow	
3	Sept	Fumigate	Custom fumigate	45 gallons per acre (40 - 50 gal/acre)

Table 4. Production Costs for Baby Mint Following Grain, SW Idaho

Item	Quantity Per Acre	Unit	Price or Cost/Unit		Value or Cost/Acre
Gross Returns					
Mint Oil	90	lb	$22.00		$1,980.00
Variable Costs					
Roots:				$270.00	
Mint roots	1	acre	$240.00		$240.00
Transportation	1	acre	$30.00		$30.00
Fertilizer:				$327.58	
Base your rate on your soil test results.					
A typical recommendation might include the following:					
Nitrogen (dry)	300	lb	$0.66		$198.00
Phosphorus (dry)	75	lb	$0.53		$39.75
Potassium (dry)	75	lb	$0.50		$37.50
Sulfur (dry)	50	lb	$0.25		$12.50
Boron	2.8	lb	$8.20		$22.96
Zinc	5	lb	$2.85		$14.25
Liquid sulfur (Super 6)	1	qt	$2.62		$2.62
Pesticides:				$558.52	
Rates & chemicals will vary depending on pest pressure throughout the season.					
Consult a certified pesticide applicator or the PNW Pest Control Management Guides.					
The following cost estimates are typical:					
Vapam	45	gal	$5.55		$249.75
Spartan	8	oz	$4.33		$34.64
Sinbar	2	lb	$45.40		$90.80
Basagran	3.5	pt	$12.50		$43.75
Volunteer	12	oz	$0.94		$11.25
Buctril	8	oz	$0.47		$3.76
Crop oil concentrate (COC)	2	qt	$3.66		$7.32
Onager	16	oz	$2.35		$37.60
Quadris	16	oz	$2.38		$38.08
Intrepid	14	oz	$2.07		$28.98
LI 700	6.4	oz	$0.30		$1.92
Orthene	1	lb	$10.67		$10.67
Machinery:				$115.90	
Fuel	10.79	gal	$3.60		$38.84
Lubricants	1	acre	$5.79		$5.79
Machinery Repairs	1	acre	$24.13		$24.13
Machinery Labor	2.65	hr	$17.80		$47.14
Custom & Consultants:				$494.85	
Custom fumigate	1	acre	$35.00		$35.00
Custom pesticide application, aerial	2	acre	$11.05		$22.10
Custom fertilizer application, aerial	125	lb	$0.11		$13.75
Custom fertilizer application, ground	2	acre	$9.50		$19.00
Custom harvest & distillation	90	lb	$4.50		$405.00
Irrigation:				$149.40	
Water Assessment	1	ac	$45.85		$45.85
Irrigation Repairs - Concrete Ditch system	1	ac	$2.75		$2.75
Irrigation Labor	8.00	hr	$12.60		$100.80

Table 4. Production Costs for Baby Mint Following Grain, SW Idaho

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Other:				**$79.35**
Crop insurance, multi-peril	1	acre	$11.00	$11.00
Marketing assessment	90.00	lb	$0.065	

Table 6. Production Costs for Mint Production, SW Idaho

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	
Gross Returns					
Mint Oil	110	lb	$22.00		$2,420.00
Variable Costs					
Fertilizer:				**$228.46**	
Base your rate on your soil test results.					
Nitrogen	330	lb	$0.66		$217.80
Sulfur	3	lb	$0.25		$0.75
Liquid urea (21-0-0)	3	gal	$2.43		$7.29
Liquid sulfur (Super 6)	1	qt	$2.62		$2.62
Pesticides:				**$320.34**	
Rates & chemicals will depend on the pests in your crop.					
Consult a certified pesticide applicator or the PNW Pest Control Management Guides.					
The following cost estimates are typical:					
Sinbar	1.5	lb	$45.40		$68.10
Chateau	4	oz	$5.84		$23.36
Gramoxone	1	pt	$4.19		$4.19
Stinger	6	oz	$5.80		$34.80
Command	16	oz	$1.74		$27.84
Sticker	3.2	oz	$0.23		$0.75
Buctril	8	oz	$0.47		$3.76
Basagran	1	qt	$12.50		$12.50
Volunteer	12	oz	$0.94		$11.25
Crop Oil Concentrate	1	qt	$3.66		$3.66
Onager	16	oz	$2.35		$37.60
Quadris	8	oz	$2.38		$19.04
Intrepid	14	oz	$2.07		$28.98
Orthene	1	lb	$10.67		$10.67
LI 700	12.8	oz	$0.30		$3.84
Coragen	5	oz	$6.00		$30.00
Machinery:				**$40.90**	
Fuel	4.03	gal	$3.60		$14.52
Lubricants	1	acre	$2.16		$2.16
Machinery Repairs	1	acre	$9.14		$9.14
Machinery Labor	0.85	acre	$17.80		$15.08
Custom & Consultants:				**$545.50**	
Custom pesticide application, aerial	2	acre	$9.15		$18.30
Custom fertilizer application, aerial	220	lb	$0.11		$24.20
Custom fertilizer application, ground	1	acre	$8.00		$8.00
Custom harvest & distillation	110	lb	$4.50		$495.00
Irrigation:				**$138.69**	
Water Assessment	1	ac	$45.85		$45.85
Irrigation Repairs	1	ac	$2.75		$2.75
Irrigation Labor	7.15	hr	$12.60		$90.09
Other:				**$56.07**	
Crop insurance	1	acre	$11.00		$11.00
Marketing assessment	1	ac	$0.065		$0.07
Handweeding	1	ac	$45.00		$45.00
Operating Interest[1]					$51.37
Total Variable Costs					**$1,381.33**
Net Returns Above Variable Costs					**$1,038.67**

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre

Type of Machine	Replacement Value $	Age When Purchased	Years of Life	Annual Hours of Use	Salvage Value $	Annual Repairs (Materials & Labor) $	Gallons of Fuel/Hr.	Taxes, Housing, Insur., Licenses %	Acres per Hour
145HP-WT	118,000	5	15	700	15,000	3,000	6.35	1.2	
125HP-WT	93,000	5	15	700	13,500	3,000	5.48	1.2	
75HP-WT with loader	55,000	5	15	300	25,000	1,000	3.28	1.2	
4-Bottom Plow	12,000	5	20	50	1,000	500	4.6	0.6	2.78
12' Roller Harrow	24,000	5	15	40	2,000	500	4.6	0.6	6.98