az2139 June 2025

Arizona Agricultural Enterprise Budgets: La Paz County's 2024 Field Crops' Production Budgets

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This report estimates the typical economic costs and returns to grow alfalfa, wheat, cotton, and sorghum in the area of La Paz County, Arizona. The Arizona Agricultural Enterprise Budgets are estimated based on a representative farm and its related cropping operations in a determined location, numbers are reported on a per unit base.

Arizona production budgets can be used as draft templates that can be updated and adapted by using operation-specific numbers and assist with a structured way to store financial information used in day-to-day decision-making processes; when production budgets are updated using operation-specific information, this tool allows forecasting revenues and expenses estimates related to situation-specific farming activities. From an input efficiency point of view, management decisions can be made with better information when there's a detailed tool where the accounting of production costs is stored. From an output improvement point of view, detailed forecasts on itemized revenues and expenses can lead to finding areas of improvement that can boost the productivity of the resources.

Beginning farmers and established farmers can benefit from the existence of Arizona's agricultural production budgets; publicly available information on multiple crops allows farmers and other stakeholders to look not only into their area of expertise but also into new potential ventures, based on information about revenues and expenses that can be expected on crops different than the ones they already grow based on typical costs and returns estimated on their local geographic area of interest.

The budget structures presented in this report are inspired and built from the latest data collection efforts by Trent Teegerstrom in 2011, and the latest published Arizona agricultural enterprise reports (Evancho, Ollerton, Teegerstrom, & Seavert, 2023) (Teegerstrom, 1996; 1999),

using the Breakeven for New Crop Options (BENCO) model templates. The BENCO model was presented as a tool to evaluate the adoption of new crops into a farming operation with the usage of crop production budgets, allowing the customization of the analysis to different cropping patterns (Ramos-Coronado, Miller, & Bruhn, 2023).

To better represent up-to-date input prices and farming practices, in-person interviews were conducted with the assistance of farmers, farm managers, and/or farming operation decision-makers. The interview materials were the old crop budgets available, and we conducted the interview going line-by-line on items inside those budgets to discuss the relevance of the operation, the quantities and unit prices, outdated information, new practices and inputs, as well as the communication structure of the budget itself.

Cropping pattern

Budgets are based on a 1,500-tillable-acre farm, this is not reflective of any existing operation but a representative operation for the area. The breakdown of crops grown for this representative enterprise is: 675 acres of alfalfa hay in production, 150 acres of alfalfa hay being established, 240 acres of upland cotton, 165 acres of sorghum, 165 acres of durum wheat, and 105 acres of winter wheat. All crops are grown using flood irrigation.

Labor

The general labor cost is \$16.50 per hour. Irrigation labor cost is \$14.55 per hour. Labor costs include costs associated with social security, workers' compensation, unemployment insurance, and other labor overhead expenses. Tractor labor hours are calculated based on machinery hours plus ten percent.

Machinery and equipment

Machinery and equipment are assumed to be sufficient for a 1,500-tillable-acre farm. Whole farm machinery costs analysis, as well as operation-specific costs are presented; including estimates for labor, fuel, repairs, and maintenance associated with the usage of the corresponding equipment.

Sensitivity analysis

Each crop production budget presents a sensitivity analysis to approximate profitability scenarios for different returns in terms of yield and price, as well as different scenarios of variable costs. Each sensitivity analysis portrays estimated returns with variances in prices and yield to the magnitude of negative and positive 5%, 10%, and 15% changes with respect to increases and decreases of variable costs to the magnitude of 10%, and 20%.

Each budget contains the following sections:

Overview information on representative production unit: Information about the field such as location, irrigation system, previous crop rotation, tillage, and soil information.

Returns: The return section of the budgets represents the income of the operation, it reflects expected yields and prices for the crop and area of study.

Variable Cash Costs: Variable cash costs are broken down into the following categories: land preparation and maintenance, crop production, harvest, and other charges.

Fixed Cash Costs: Fixed expenses such as property taxes, and annual cash rent. For this report, we included a \$170 land rent cost per crop per acre as a fixed cost associated with each production.

Fixed Non-Cash Costs: Expenses reflecting an estimated dollar value of the ownership costs related to the required power units, machinery, equipment, and their related depreciation and interest costs.

Updated crop budgets in this document include:

- La Paz Alfalfa Establishment Budget 2024
- La Paz Alfalfa Hay Budget 2024
- La Paz Cotton Upland Budget 2024
- La Paz Sorghum Grain Budget 2024
- La Paz Wheat Durum Budget 2024
- La Paz Wheat Winter Budget 2024

It is recommended that this tool be used as a reference for building and developing other analyses using case-specific numbers for best suitability

References

Evancho, B., Ollerton, P., Teegerstrom, T., & Seavert, C. (2023). Enterprise Budgets, Southern Arizona: Alfalfa Hay, Cotton Flood, Durum Wheat, Fallow, Silage Corn, and Spring Barley. University of Arizona Cooperative Extension.

Ramos-Coronado, L., Miller, M., & Bruhn, J. (2023). BENCO: Break-Even for New Crop Options Model. University of Arizona Cooperative Extension. NIFA Grant # 2017-68005-26867.

Teegerstrom, T. (1999). Arizona Field Crop Budgets, La Paz County, 1999-2000. University of Arizona Cooperative Extension.

Teegerstrom, T. (1996). Arizona Field Crop Budgets, La Paz County, 1996-1997. University of Arizona Cooperative Extension.

Area: La Paz County, Arizona Crop: Alfalfa establishment 2024 Irrigation system: Flood basin Previous crop: Wheat - winter Tillage: Conventional

							, \$/acre.	
Returns			Unit	\$/Unit		Quantity	Value	Your Farm
Alfalfa Hay Establishment			ton	\$240.20		0.00	\$0.00	
Total Returns				4			\$0.00	
Variable Cash Costs	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
Land Preparation and Maintenance								
V-Ripper		2.00	acre	\$24.96	\$72.48	\$0.00	\$97.43	
Offset Disk		3.00	acre	\$13.05	\$37.35	\$0.00	\$50.40	
Moldboard Plow		1.00	acre	\$7.13	\$27.68	\$0.00	\$34.81	
Landplane		1.00	acre	\$3.57	\$9.78	\$0.00	\$13.35	
Crop Production								
Drill		1.00	acre	\$4.99	\$12.68	\$0.00	\$17.67	
Seed Costs				\$0.00	\$0.00	\$112.50	\$112.50	
- Seed	\$4.50	25.00	acre					
Fertilizer Spreader		1.00	acre	\$1.73	\$3.87	\$0.00	\$5.61	
Fertility Program				\$0.00	\$0.00	\$48.11	\$48.11	
- MAP 11-52-00	\$48.11	1.00	acre	·	·		·	
Boom Sprayer	* -	1.00	acres	\$1.10	\$1.84	\$0.00	\$2.93	
Chemical Program				\$0.00	\$0.00	\$29.60	\$29.60	
- Herbicides	\$12.75	1.00	acre	ψ0.00	φ0.00	Ψ20.00	Ψ20.00	
- Insecticides	\$16.85	1.00	acre					
Irrigation	Ψ10.05	1.00	acic	\$87.30	\$0.00	\$333.00	\$420.30	
ingation				φο7.30	φ0.00	φ333.00	φ420.30	
Flood - Irrigation Water	\$55.00	6.00	ac ft					
Flood - Irrigation Labor	\$14.55	6.00	hour					
 Annual Řepairs & Maintenance 	\$3.00	1.00	acre					
Additional Crop Prod. Labor	\$16.50	1.63	hour	\$26.90	\$0.00	\$0.00	\$26.90	
Harvest								
Other Charges								
Other Expenses		5.0%		\$0.00	\$0.00	\$42.98	\$42.98	
Interest on Operating Capital		3.0%		\$0.00	\$0.00	\$13.54	\$13.54	
Total Variable Cash Costs				\$170.72	\$165.67	\$579.73	\$916.11	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00	
Total Fixed Cash Costs							\$170.00	
Total Returns minus Total Variable and								
Fixed Cash Costs							-\$1,086.11	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Power Units, Machinery & Equipment,	,				acre	70.47	70.47	22
depreciation & interest								
Total Fixed Non-Cash Costs							\$70.47	
Total Establishment Costs (over 3							\$1,156.58	
years) Returns minus Total Establishment								
Costs							-\$1,156.58	

Area: La Paz County, Arizona Crop: Alfalfa hay production 2024 Irrigation system: Flood basin Previous crop: Wheat - winter Tillage: Conventional

Returns			Unit	\$/Unit		Quantity	, \$/acre. Value	Your Farm
Alfalfa Hay Production			ton	\$240.20	-	8.00	\$1,921.60	
Total Returns							\$1,921.60	
Variable Cash Costs	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
Land Preparation and Maintenance								
Crop Production Fertilizer Spreader		1.00	ooro	\$1.73	\$3.87	\$0.00	\$5.61	
		1.00	acre		·	*	*	
Fertility Program	# 407.00	1.00		\$0.00	\$0.00	\$137.99	\$137.99	
10-34-00	\$137.99	1.00	acre	00.40	#0.07	40.00	ΦΕ 07	
Boom Sprayer		2.00	acre	\$2.19	\$3.67	\$0.00	\$5.87	
Chemical Program				\$0.00	\$0.00	\$29.60	\$29.60	
Herbicides	\$12.75	1.00	acre					
Insecticides	\$16.85	1.00	acre					
Irrigation				\$72.75	\$0.00	\$278.00	\$350.75	
Flood - Irrigation Water	\$55.00	5.00	ac ft					
Flood - Irrigation Labor	\$14.55	5.00	hour					
Annual Repairs & Maintenance	\$3.00	1.00	acre					
Additional Crop Prod. Labor	\$16.50	5.33	hour	\$87.95	\$0.00	\$0.00	\$87.95	
Harvest								
Harvest, Custom	\$47.23	8.00	tons	\$0.00	\$0.00	\$377.84	\$377.84	
Hauling, Custom	\$3.99	8.00	ton	\$0.00	\$0.00	\$31.90	\$31.90	
Other Charges		F 00/		#0.00	¢0.00	ΦE4.00	ΦE4 00	
Other Expenses		5.0%		\$0.00	\$0.00	\$51.38	\$51.38	
Interest on Operating Capital		3.0%		\$0.00	\$0.00	\$16.18	\$16.18	
Total Variable Cash Costs				\$164.62	\$7.55	\$922.89	\$1,095.06	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00	
Total Fixed Cash Costs							\$170.00	
Total Returns minus Total Variable and Fixed							\$656.54	
Cash Costs							φ050.54	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Power Units, Machinery & Equipment,					acre	5.78	5.78	
depreciation & interest Total Fixed Non-Cash Costs							\$5.78	
Total Fixed Noti-Casti Costs							φ3.76	
Total Annual Costs							\$1,270.85	
Returns minus Total Annual Costs				_			\$650.75	
Establishment Costs (/3 years)							\$385.53	
Returns minus Establishment Costs & Total Annual Costs							\$265.23	

Table 1A. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% decrease in variable cost.

		Yield per acre (tons)									
Unit Price (\$)	6.8	7.2	7.6	8	8.4	8.8	9.2				
204.17	\$336.52	\$418.19	\$499.86	\$581.53	\$663.19	\$744.86	\$826.53				
216.18	418.19	504.66	591.13	677.61	764.08	850.55	937.02				
228.19	499.86	591.13	682.41	773.69	864.96	956.24	1047.51				
240.20	581.53	677.61	773.69	869.77	965.85	1061.93	1158.01				
252.21	663.19	764.08	864.96	965.85	1066.73	1167.61	1268.50				
264.22	744.86	850.55	956.24	1061.93	1167.61	1273.30	1378.99				
276.23	826.53	937.02	1047.51	1158.01	1268.50	1378.99	1489.48				

Table 2A. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% decrease in variable cost.

		Yield per acre (tons)									
Unit Price (\$)	6.8	7.2	7.6	8	8.4	8.8	9.2				
204.17	\$227.02	\$308.68	\$390.35	\$472.02	\$553.69	\$635.36	\$717.02				
216.18	308.68	395.16	481.63	568.10	654.57	741.04	827.52				
228.19	390.35	481.63	572.90	664.18	755.46	846.73	938.01				
240.20	472.02	568.10	664.18	760.26	856.34	952.42	1048.50				
252.21	553.69	654.57	755.46	856.34	957.22	1058.11	1158.99				
264.22	635.36	741.04	846.73	952.42	1058.11	1163.80	1269.48				
276.23	717.02	827.52	938.01	1048.50	1158.99	1269.48	1379.98				

Table 3A. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% increase in variable cost.

			Y	Yield per acre (to	ons)		
Unit Price (\$)	6.8	7.2	7.6	8	8.4	8.8	9.2
204.17	\$8.00	\$89.67	\$171.34	\$253.01	\$334.68	\$416.34	\$498.01
216.18	89.67	176.14	262.62	349.09	435.56	522.03	608.50
228.19	171.34	262.62	353.89	445.17	536.44	627.72	719.00
240.20	253.01	349.09	445.17	541.25	637.33	733.41	829.49
252.21	334.68	435.56	536.44	637.33	738.21	839.10	939.98
264.22	416.34	522.03	627.72	733.41	839.10	944.78	1050.47
276.23	498.01	608.50	719.00	829.49	939.98	1050.47	1160.96

Table 4A. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% increase in variable cost.

	Yield per acre (tons)										
Unit Price (\$)	6.8	7.2	7.6	8	8.4	8.8	9.2				
204.17	-\$101.50	-\$19.83	\$61.83	\$143.50	\$225.17	\$306.84	\$388.51				
216.18	-19.83	66.64	153.11	239.58	326.05	412.53	499.00				
228.19	61.83	153.11	244.39	335.66	426.94	518.21	609.49				
240.20	143.50	239.58	335.66	431.74	527.82	623.90	719.98				
252.21	225.17	326.05	426.94	527.82	628.71	729.59	830.47				
264.22	306.84	412.53	518.21	623.90	729.59	835.28	940.97				
276.23	388.51	499.00	609.49	719.98	830.47	940.97	1051.46				

Table 5A. Breakeven analysis: estimated per acre breakeven price point at varying yields

Yield	6.80	7.20	7.60	8.00	8.40	8.80	9.20
Breakeven price	\$186.89	\$176.51	\$167.22	\$158.86	\$151.29	\$144.41	\$138.14

Table 6A. Breakeven analysis: estimated per acre breakeven yield point at varying prices

Price	\$204.17	\$216.18	\$228.19	\$240.20	\$252.21	\$264.22	\$276.23
Breakeven yield	6.22	5.88	5.57	5.29	5.04	4.81	4.60

Area: La Paz County, Arizona Crop: Cotton - Upland 2024 Irrigation system: Flood furrow Previous crop: Wheat - winter Tillage: Conventional

Budget Unit: 1 Acre							, \$/acre.	
Returns			Unit	\$/Unit		Quantity	, φ/acre. Value	Your Farm
Cotton Lint			pound	\$0.90		1,500	4	
Cotton Seed			pound	\$0.10		2,250		
Total Returns							\$1,575.00	
Variable Cash Costs	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
Land Preparation and Maintenance				4.5.6	****	** **	4.0 =0	
V-Ripper		1.00	acre	\$12.48	\$36.24	\$0.00	\$48.72 _	
Offset Disk		2.00	acre	\$8.70	\$24.90	\$0.00		
Moldboard Plow Landplane		1.00 1.00	acre	\$7.13 \$3.57	\$27.68 \$9.78	\$0.00 \$0.00	\$34.81 _	
Lister		1.00	acre acre	\$5.70	\$15.38	\$0.00	\$13.35 _ \$21.09	
Cotton Shredder/ Root Puller		1.00	acre	\$2.73	\$4.17	\$0.00	\$6.90	
Crop Production				, -	,	,		
Row Planter		1.00	acre	\$4.16	\$13.04	\$0.00	\$17.20 _	
Seed Costs	****			\$0.00	\$0.00	\$57.00	\$57.00 _	
Seed	\$380.00	0.15	acre	Φ4 7 0	¢0.07	¢0.00	ΦΕ 04	
Fertilizer Spreader Fertilizer Injection System		1.00 3.00	acre acre	\$1.73 \$12.48	\$3.87 \$33.55	\$0.00 \$0.00	\$76.03	
Fertility Program		3.00	acie	\$0.00	\$0.00	\$108.53	\$108.53	
URAN 32-00-00	\$88.55	1.00	acre	ψ0.00	ψ0.00	Ψ100.50	Ψ100.50 _	
Liquid - 05-10-05	\$19.98	1.00	acre					
Boom Sprayer	Ψ.σ.σσ	2.00	acre	\$2.19	\$3.67	\$0.00	\$5.87 _	
Chemical Program				\$0.00	\$0.00	\$185.53	\$185.53 _	
Herbicides	\$34.38	1.00	acre					
Growth reg./ defoliants (w/air appl. costs)	\$74.14	1.00	acre					
Insecticides (w/air appl. costs)	\$77.01	1.00	acre	45.55	*** 40	40.00	* 40.00	
Row Cultivator		2.00	acre	\$5.55	\$8.43	\$0.00		
Irrigation				\$72.75	\$0.00	\$278.00	\$350.75 _	
Flood - Irrigation Water	\$55.00	5.00	ac ft					
Flood - Irrigation Labor	\$14.55	5.00	hour					
AnnuaL Repairs & Maintenance	\$3.00	1.00	acre					
Additional Crop Prod. Labo	\$16.50	4.00	hour	\$66.00	\$0.00	\$0.00	\$66.00 _	
Harvest								
Harvest, Custom (1st & 2nd pick)	\$160.00	1.00	acre	\$0.00	\$0.00	\$160.00	\$160.00 _	
Hauling, Custom	\$5.63 \$44.00	3.00 3.00	bale	\$0.00 \$0.00	\$0.00 \$0.00	<u>\$16.89</u> \$132.00	\$10.69 _	
Gin Cotton/Drying/Swathing, Custom Research and Protection Assessment	\$3.00	3.00	bale bales	\$0.00	\$0.00	\$9.00	Φ132.00 <u></u>	
National Cotton Council	\$3.00 \$0.45	3.00	bales	\$0.00	\$0.00	\$1.35	ф9.00 <u> </u>	
Arizona Cotton Growers Association	\$0.65	3.00	bales	\$0.00	\$0.00	\$1.95	\$1.95	
Cotton Board Assessment	\$1.00	3.00	bales	\$0.00	\$0.00	\$3.07	\$3.07	
Classing Fee	\$2.30	3.00	bales	\$0.00	\$0.00	\$6.90	\$6.90 _	
Other Charges								
Other Expenses		5.0%		\$0.00	\$0.00	\$67.31	\$67.31 _	
Interest on Operating Capital		3.0%		\$0.00	\$0.00	\$21.20	\$21.20 _	
Total Variable Cash Costs				\$205.17	\$180.72	\$1,048.72	\$1,434.61 _	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00 _	Tour r ailli
· ·					acie	\$170.00		
Total Fixed Cash Costs							\$170.00 _	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Power Units, Machinery & Equipment, depreciation & interest					acre	108.68	108.68	
Total Fixed Non-Cash Costs							\$108.68 _	
T							A4 =	
Total Annual Costs								
Returns minus Total Annual Costs							-\$138.29	

Table 1B. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% decrease in variable cost.

		Yield per acre (pounds)									
Unit Price (\$)	1275	1350	1425	1500	1575	1650	1725				
0.77	-\$259.75	-\$191.12	-\$122.50	-\$53.87	\$14.75	\$83.38	\$152.00				
0.81	-202.37	-130.37	-58.37	13.63	85.63	157.63	229.63				
0.86	-145.00	-69.62	5.75	81.13	156.50	231.88	307.25				
0.90	-87.62	-8.87	69.88	148.63	227.38	306.13	384.88				
0.95	-30.25	51.88	134.00	216.13	298.25	380.38	462.50				
0.99	27.13	112.63	198.13	283.63	369.13	454.63	540.13				
1.04	84.50	173.38	262.25	351.13	440.00	528.88	617.75				

Table 2B. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% decrease in variable cost.

			Yie	eld per acre (po	unds)		
Unit Price (\$)	1275	1350	1425	1500	1575	1650	1725
0.77	-\$403.21	-\$334.58	-\$265.96	-\$197.33	-\$128.71	-\$60.08	\$8.54
0.81	-345.83	-273.83	-201.83	-129.83	-57.83	14.17	86.17
0.86	-288.46	-213.08	-137.71	-62.33	13.04	88.42	163.79
0.90	-231.08	-152.33	-73.58	5.17	83.92	162.67	241.42
0.95	-173.71	-91.58	-9.46	72.67	154.79	236.92	319.04
0.99	-116.33	-30.83	54.67	140.17	225.67	311.17	396.67
1.04	-58.96	29.92	118.79	207.67	296.54	385.42	474.29

Table 3B. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% increase in variable cost.

	Yield per acre (pounds)										
Unit Price (\$)	1275	1350	1425	1500	1575	1650	1725				
0.77	-\$690.13	-\$621.51	-\$552.88	-\$484.26	-\$415.63	-\$347.01	-\$278.38				
0.81	-632.76	-560.76	-488.76	-416.76	-344.76	-272.76	-200.76				
0.86	-575.38	-500.01	-424.63	-349.26	-273.88	-198.51	-123.13				
0.90	-518.01	-439.26	-360.51	-281.76	-203.01	-124.26	-45.51				
0.95	-460.63	-378.51	-296.38	-214.26	-132.13	-50.01	32.12				
0.99	-403.26	-317.76	-232.26	-146.76	-61.26	24.24	109.74				
1.04	-345.88	-257.01	-168.13	-79.26	9.62	98.49	187.37				

Table 4B. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% increase in variable cost.

	Yield per acre (pounds)										
Unit Price (\$)	1275	1350	1425	1500	1575	1650	1725				
0.77	-\$833.59	-\$764.97	-\$696.34	-\$627.72	-\$559.09	-\$490.47	-\$421.84				
0.81	-776.22	-704.22	-632.22	-560.22	-488.22	-416.22	-344.22				
0.86	-718.84	-643.47	-568.09	-492.72	-417.34	-341.97	-266.59				
0.90	-661.47	-582.72	-503.97	-425.22	-346.47	-267.72	-188.97				
0.95	-604.09	-521.97	-439.84	-357.72	-275.59	-193.47	-111.34				
0.99	-546.72	-461.22	-375.72	-290.22	-204.72	-119.22	-33.72				
1.04	-489.34	-400.47	-311.59	-222.72	-133.84	-44.97	43.91				

Table 5B. Breakeven analysis: estimated per acre breakeven price point at varying yields.

Yield	1275.00	1350.00	1425.00	1500.00	1575.00	1650.00	1725.00
Breakeven price	\$1.34	\$1.27	\$1.20	\$1.14	\$1.09	\$1.04	\$0.99

Table 6B. Breakeven analysis: estimated per acre breakeven yield point at varying prices.

Price	\$0.77	\$0.81	\$0.86	\$0.90	\$0.95	\$0.99	\$1.04
Breakeven yield	2239.60	2115.18	2003.85	1903.66	1813.01	1730.60	1655.36

Area: La Paz County, Arizona Crop: Sorghum Grain 2024 Irrigation system: Flood furrow Previous crop: Cotton - upland

Tillage: Conventional Soil: Sandy-Loam Budget Unit: 1 Acre

Returns			Unit	\$/Unit		Quantity	, \$/acre. Value	Your Farm
Sorghum Total Returns			bushel	\$5.60		100.00	<u>\$560.00</u> \$560.00	
Variable Cash Costs	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
Land Preparation and Maintenance								
V-Ripper		1.00	acre	\$12.48	\$36.24	\$0.00	\$48.72	
Offset Disk		2.00	acre	\$8.70	\$24.90	\$0.00	\$33.60	
Landplane		1.00	acre	\$3.57	\$9.78	\$0.00	\$13.35	
Lister Crop Production		1.00	acre	\$5.70	\$15.38	\$0.00	\$21.09	
Drill		1.00	acre	\$4.99	\$12.68	\$0.00	\$17.67	
Seed Costs		1.00	acie	\$0.00	\$0.00	\$18.00	\$18.00	
Seed Costs Seed	\$2.00	9.00	noundo	\$0.00	\$0.00	\$18.00	\$18.00	
Inoculant	\$2.00		pounds					
Fertilizer Spreader	φ3.00	0.00 1.00	pounds acre	\$1.73	\$3.87	\$0.00	\$5.61	
Fertility Program		1.00	acie	\$0.00	\$0.00	\$68.47	\$68.47	
82-00-00	\$68.47	1.00	acre	ψ0.00	Ψ0.00	ψ00.47	Ψ00.47	
Boom Sprayer	ψου.+1	1.00	acre	\$1.10	\$1.84	\$0.00	\$2.93	
Chemical Program			40.0	\$0.00	\$0.00	\$68.87	\$68.87	
Herbicides	\$17.10	1.00	acre	,	,	,	,	
Insecticides	\$51.77	1.00	acre					
Irrigation				\$36.38	\$0.00	140.5	\$176.88	
Flood - Irrigation Water	\$55.00	2.50	ac ft					
Flood - Irrigation Labor	\$14.55	2.50	hour					
AnnuaL Repairs & Maintenance	\$3.00	1.00	acre					
Additional Crop Prod. Labo	\$16.50	2.40	hour	\$39.60	\$0.00	\$0.00	\$39.60	
Harvest	Ψ10.00	2.40	noui	φου.σσ	φ0.00	ψ0.00	ψ00.00	
Harvest, Custom	\$60.00	1.00	acre	\$0.00	\$0.00	\$60.00	\$60.00	
Hauling, Custom	\$27.00	2.80	ton	\$0.00	\$0.00	\$75.60	\$75.60	
Other Charges	φ_1.00	2.00	1011	Ψ0.00	φο.σο	<u>φ7 0.00</u>	ψ, σ.σσ	
Other Expenses		5.0%		\$0.00	\$0.00	\$32.52	\$32.52	
Interest on Operating Capital		3.0%		\$0.00	\$0.00	\$10.24	\$10.24	
Total Variable Cash Costs		0.0 /0		\$114.24	\$104.69	\$474.20	\$693.13	
Total variable Cash Costs				ֆ114.∠4	\$104.09	\$474.20	ф093.13	
Total Returns minus Total Variable Cash Costs							-\$133.13	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00	1001101111
Total Fixed Cash Costs						,	\$170.00	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Power Units, Machinery & Equipment, depreciation & interest					acre	46.49	46.49	
Total Fixed Non-Cash Costs							46.49290023	
Total Annual Costs							\$909.63	
Returns minus Total Annual Costs							-\$349.63	
							ψ3-10.00	

Table 1C. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% decrease in variable cost.

			Yi	eld per acre (bu	shels)		
Unit Price (\$)	85	90	95	100	105	110	115
4.76	-\$366.40	-\$342.60	-\$318.80	-\$295.00	-\$271.20	-\$247.40	-\$223.60
5.04	-342.60	-317.40	-292.20	-267.00	-241.80	-216.60	-191.40
5.32	-318.80	-292.20	-265.60	-239.00	-212.40	-185.80	-159.20
5.60	-295.00	-267.00	-239.00	-211.00	-183.00	-155.00	-127.00
5.88	-271.20	-241.80	-212.40	-183.00	-153.60	-124.20	-94.80
6.16	-247.40	-216.60	-185.80	-155.00	-124.20	-93.40	-62.60
6.44	-223.60	-191.40	-159.20	-127.00	-94.80	-62.60	-30.40

Table 2C. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% decrease in variable cost.

	Yield per acre (bushels)								
Unit Price (\$)	85	90	95	100	105	110	115		
4.76	-\$435.71	-\$411.91	-\$388.11	-\$364.31	-\$340.51	-\$316.71	-\$292.91		
5.04	-411.91	-386.71	-361.51	-336.31	-311.11	-285.91	-260.71		
5.32	-388.11	-361.51	-334.91	-308.31	-281.71	-255.11	-228.51		
5.60	-364.31	-336.31	-308.31	-280.31	-252.31	-224.31	-196.31		
5.88	-340.51	-311.11	-281.71	-252.31	-222.91	-193.51	-164.11		
6.16	-316.71	-285.91	-255.11	-224.31	-193.51	-162.71	-131.91		
6.44	-292.91	-260.71	-228.51	-196.31	-164.11	-131.91	-99.71		

Table 3C. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% increase in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	85	90	95	100	105	110	115			
4.76	-\$574.34	-\$550.54	-\$526.74	-\$502.94	-\$479.14	-\$455.34	-\$431.54			
5.04	-550.54	-525.34	-500.14	-474.94	-449.74	-424.54	-399.34			
5.32	-526.74	-500.14	-473.54	-446.94	-420.34	-393.74	-367.14			
5.60	-502.94	-474.94	-446.94	-418.94	-390.94	-362.94	-334.94			
5.88	-479.14	-449.74	-420.34	-390.94	-361.54	-332.14	-302.74			
6.16	-455.34	-424.54	-393.74	-362.94	-332.14	-301.34	-270.54			
6.44	-431.54	-399.34	-367.14	-334.94	-302.74	-270.54	-238.34			

Table 4C. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% increase in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	85	90	95	100	105	110	115			
4.76	-\$643.65	-\$619.85	-\$596.05	-\$572.25	-\$548.45	-\$524.65	-\$500.85			
5.04	-619.85	-594.65	-569.45	-544.25	-519.05	-493.85	-468.65			
5.32	-596.05	-569.45	-542.85	-516.25	-489.65	-463.05	-436.45			
5.60	-572.25	-544.25	-516.25	-488.25	-460.25	-432.25	-404.25			
5.88	-548.45	-519.05	-489.65	-460.25	-430.85	-401.45	-372.05			
6.16	-524.65	-493.85	-463.05	-432.25	-401.45	-370.65	-339.85			
6.44	-500.85	-468.65	-436.45	-404.25	-372.05	-339.85	-307.65			

Table 5C. Breakeven analysis: estimated per acre breakeven price point at varying yields.

Yield	85.00	90.00	95.00	100.00	105.00	110.00	115.00
Breakeven price	\$10.70	\$10.11	\$9.58	\$9.10	\$8.66	\$8.27	\$7.91

Table 6C. Breakeven analysis: estimated per acre breakeven yield point at varying prices.

Price	\$4.76	\$5.04	\$5.32	\$5.60	\$5.88	\$6.16	\$6.44
Breakeven yield	191.10	180.48	170.98	162.43	154.70	147.67	141.25

Area: La Paz County, Arizona Crop: Wheat - Durum 2024 Irrigation system: Flood furrow Previous crop: Cotton - upland

Tillage: Double crop Soil: Sandy-Loam **Budget Unit: 1 Acre**

Batana			11.2	Φ/11-11		0 - 11	, \$/acre.	\/ .
Returns Durum Wheat			Unit bushel	\$/Unit \$8.82		Quantity 110.00	Value \$970.20	Your Farm
Total Returns			busilei	Φ0.0∠		110.00	\$970.20 \$970.20	
Total rictariis							Ψ370.20	
Variable Cash Costs	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
Land Preparation and Maintenance								
V-Ripper		1.00	acre	\$12.48	\$36.24	\$0.00		
Offset Disk		2.00	acre	\$8.70	\$24.90	\$0.00	\$33.60	
Crop Production								
Drill		1.00	acre	\$4.99	\$12.68	\$0.00	\$17.67	
Seed Costs				\$0.00	\$0.00	\$27.60	\$27.60	
Seed	\$0.46	60.00	pounds					
Inoculant								
Fertilizer Spreader		1.00	acre	\$1.73	\$3.87	\$0.00	\$5.61	
Fertility Program				\$0.00	\$0.00	\$360.00	\$360.00	
NH3	\$360.00	1.00	acre					
Boom Sprayer		1.00	acre	\$1.10	\$1.84	\$0.00	\$2.93	
Chemical Program				\$0.00	\$0.00	\$44.46	\$44.46	
Herbicides	\$15.38	1.00	acre					
Insecticides	\$29.08	1.00	acre					
Irrigation				\$50.93	\$0.00	\$195.50	\$246.43	
Flood - Irrigation Water	\$55.00	3.50	ac ft					
Flood - Irrigation Labor	\$14.55	3.50	hour					
AnnuaL Repairs & Maintenance	\$3.00	1.00	acre					
Additional Crop Prod. Labo	\$16.50	2.62	hour	\$43.23	\$0.00	\$0.00	\$43.23	
Harvest								
Harvest, Custom	\$60.00	1.00	acre	\$0.00	\$0.00	\$60.00	\$60.00	
Hauling, Custom	\$27.00	3.00	ton	\$0.00	\$0.00	\$81.00	\$81.00	
Other Charges								
Other Expenses			5.0%		\$0.00	\$0.00	\$49.23	
Interest on Operating Capital			3.0%		\$0.00	\$15.51	\$15.51	
Total Variable Cash Costs			0.070	\$126.72	\$89.30	\$833.30	\$1,049.32	
Total Variable Cash Costs				ψ120.72	ψ09.00	ψ000.00	Ψ1,043.32	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00	
Total Fixed Cash Costs							\$170.00	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Power Units, Machinery & Equipment, depreciation & interest					acre	40.61	40.61	
Total Fixed Non-Cash Costs							\$40.61	
Total Annual Costs							\$1,259.93	
Returns minus Total Annual Costs							-\$289.73	
							Ţ_00 0	

Table 1D. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% decrease in variable cost.

		Yield per acre (bushels)								
Unit Price (\$)	93.5	99	104.5	110	115.5	121	126.5			
7.50	-\$349.10	-\$307.86	-\$266.63	-\$225.40	-\$184.16	-\$142.93	-\$101.70			
7.94	-307.86	-264.20	-220.55	-176.89	-133.23	-89.57	-45.91			
8.38	-266.63	-220.55	-174.46	-128.38	-82.29	-36.21	9.88			
8.82	-225.40	-176.89	-128.38	-79.87	-31.36	17.15	65.66			
9.26	-184.16	-133.23	-82.29	-31.36	19.58	70.51	121.45			
9.70	-142.93	-89.57	-36.21	17.15	70.51	123.88	177.24			
10.14	-101.70	-45.91	9.88	65.66	121.45	177.24	233.02			

Table 2D. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% decrease in variable cost.

	Yield per acre (bushels)										
Unit Price (\$)	93.5	99	104.5	110	115.5	121	126.5				
7.50	-\$454.03	-\$412.80	-\$371.56	-\$330.33	-\$289.10	-\$247.86	-\$206.63				
7.94	-412.80	-369.14	-325.48	-281.82	-238.16	-194.50	-150.84				
8.38	-371.56	-325.48	-279.39	-233.31	-187.22	-141.14	-95.06				
8.82	-330.33	-281.82	-233.31	-184.80	-136.29	-87.78	-39.27				
9.26	-289.10	-238.16	-187.22	-136.29	-85.35	-34.42	16.52				
9.70	-247.86	-194.50	-141.14	-87.78	-34.42	18.94	72.30				
10.14	-206.63	-150.84	-95.06	-39.27	16.52	72.30	128.09				

Table 3D. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% increase in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	93.5	99	104.5	110	115.5	121	126.5			
7.50	-\$663.89	-\$622.66	-\$581.43	-\$540.19	-\$498.96	-\$457.73	-\$416.49			
7.94	-622.66	-579.00	-535.34	-491.68	-448.02	-404.36	-360.71			
8.38	-581.43	-535.34	-489.26	-443.17	-397.09	-351.00	-304.92			
8.82	-540.19	-491.68	-443.17	-394.66	-346.15	-297.64	-249.13			
9.26	-498.96	-448.02	-397.09	-346.15	-295.22	-244.28	-193.35			
9.70	-457.73	-404.36	-351.00	-297.64	-244.28	-190.92	-137.56			
10.14	-416.49	-360.71	-304.92	-249.13	-193.35	-137.56	-81.77			

Table 4D. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% increase in variable cost.

	Yield per acre (bushels)										
Unit Price (\$)	93.5	99	104.5	110	115.5	121	126.5				
7.50	-\$768.82	-\$727.59	-\$686.36	-\$645.12	-\$603.89	-\$562.66	-\$521.42				
7.94	-727.59	-683.93	-640.27	-596.61	-552.96	-509.30	-465.64				
8.38	-686.36	-640.27	-594.19	-548.10	-502.02	-455.94	-409.85				
8.82	-645.12	-596.61	-548.10	-499.59	-451.08	-402.57	-354.06				
9.26	-603.89	-552.96	-502.02	-451.08	-400.15	-349.21	-298.28				
9.70	-562.66	-509.30	-455.94	-402.57	-349.21	-295.85	-242.49				
10.14	-521.42	-465.64	-409.85	-354.06	-298.28	-242.49	-186.70				

Table 5D. Breakeven analysis: estimated per acre breakeven price point at varying yields.

Yield	93.50	99.00	104.50	110.00	115.50	121.00	126.50
Breakeven price	\$13.48	\$12.73	\$12.06	\$11.45	\$10.91	\$10.41	\$9.96

Table 6D. Breakeven analysis: estimated per acre breakeven yield point at varying prices.

Price	\$7.50	\$7.94	\$8.38	\$8.82	\$9.26	\$9.70	\$10.14
Breakeven yield	168.06	158.72	150.37	142.85	136.05	129.86	124.22

Area: La Paz County, Arizona Crop: Wheat - Winter 2024 Irrigation system: Flood furrow Previous crop: Cotton - upland Tillage: Conventional

							, \$/acre.	
Returns Winter Wheat			Unit bushel	\$/Unit \$7.51		Quantity 90.00	Value \$675.90	Your Farm
Total Returns			busilei	φ7.51		90.00	\$675.90 _	
Variable Cook Cooks	Deine	0	Llada	Laban	Maalainan	Mataviala	Takal	V Г
Variable Cash Costs Land Preparation and Maintenance	Price	Quantity	Unit	Labor	Machinery	Materials	Total	Your Farm
V-Ripper		1.00	acre	\$12.48	\$36.24	\$0.00	\$48.72	
Offset Disk		2.00	acre	\$8.70	\$24.90	\$0.00		
Moldboard Plow		1.00	acre	\$7.13	\$27.68	\$0.00		
Landplane		1.00	acre	\$3.57	\$9.78	\$0.00		
Crop Production								
Drill		1.00	acre	\$4.99	\$12.68	\$0.00	\$17.67	
Seed Costs				\$0.00	\$0.00	\$24.60	\$24.60	
Seed	\$0.41	60.00	pounds					
Fertilizer Spreader		1.00	acre	\$1.73	\$3.87	\$0.00	_	
Fertility Program				\$0.00	\$0.00	\$131.58	\$131.58	
82-00-00	\$64.08	1.00	acre					
11-52-00	\$67.50	1.00	acre					
Boom Sprayer		1.00	acre	\$1.10	\$1.84	\$0.00		
Chemical Program	# 45.00	4 00		\$0.00	\$0.00	\$44.46	\$44.46 _	
Herbicides Insecticides	\$15.38 \$29.08	1.00 1.00	acre acre					
Irrigation	φ29.00	1.00	acie	\$50.93	\$0.00	195.5	\$246.43	
Flood - Irrigation Water	\$55.00	3.50	ac ft	ψ00.00	φο.σσ	100.0	ΨΣ-1010 _	
Flood - Irrigation Labor	\$14.55	3.50	hour					
3								
Annual Repairs & Maintenance	\$3.00	1.00	acre	# 40.00	#0.00	#0.00	¢40.00	
Additional Crop Prod. Labo Harvest	\$16.50	2.62	hour	\$43.23	\$0.00	\$0.00	\$43.23	
Harvest, Custom	\$0.63	90.00	acre	\$0.00	\$0.00	\$56.70	\$56.70	
Hauling, Custom	\$0.03	90.00	ton	\$0.00	\$0.00	\$36.70		
Other Charges	Ψ0.+1	30.00	ton	ψ0.00	ψ0.00	φου.συ	Ψ00.50 _	
Other Expenses		5.0%		\$0.00	\$0.00	\$37.03	\$37.03	
Interest on Operating Capital		3.0%		\$0.00	\$0.00	\$11.66		
Total Variable Cash Costs		0.0 70		\$133.85	\$116.98	\$538.43		
Total Valiable Cash Costs				ψ100.00	ψ110.90	ψ550.45	Ψ709.20 _	
Total Returns minus Total Variable Cash Costs							-\$113.36	
Fixed Cash Costs					Unit	\$/Unit	Value	Your Farm
Annual Cash Rent Payment					acre	\$170.00	\$170.00	
Total Fixed Cash Costs							\$170.00 _	
Fixed Non-Cash Costs					Unit	\$/Unit	Value	Your Farm
Irrigation Systems, New Investments					acre	\$0.00	\$0.00 _	
Power Units, Machinery & Equipment, depreciation					acre	53.63	53.63	
& interest					aoro	00.00	-	
Total Fixed Non-Cash Costs							53.627911	
Total Annual Costs							\$1,012.89	
Returns minus Total Annual Costs							-\$336.99	

Table 1E. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% decrease in variable cost.

		Yield per acre (bushels)										
Unit Price (\$)	76.5	81	85.5	90	94.5	99	103.5					
6.38	-\$366.70	-\$337.97	-\$309.25	-\$280.52	-\$251.80	-\$223.07	-\$194.35					
6.76	-337.97	-307.56	-277.14	-246.73	-216.31	-185.90	-155.48					
7.13	-309.25	-277.14	-245.04	-212.93	-180.83	-148.72	-116.62					
7.51	-280.52	-246.73	-212.93	-179.14	-145.34	-111.55	-77.75					
7.89	-251.80	-216.31	-180.83	-145.34	-109.86	-74.37	-38.89					
8.26	-223.07	-185.90	-148.72	-111.55	-74.37	-37.20	-0.02					
8.64	-194.35	-155.48	-116.62	-77.75	-38.89	-0.02	38.84					

Table 2E. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% decrease in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	76.5	81	85.5	90	94.5	99	103.5			
6.38	-\$445.63	-\$416.90	-\$388.18	-\$359.45	-\$330.72	-\$302.00	-\$273.27			
6.76	-416.90	-386.49	-356.07	-325.65	-295.24	-264.82	-234.41			
7.13	-388.18	-356.07	-323.96	-291.86	-259.75	-227.65	-195.54			
7.51	-359.45	-325.65	-291.86	-258.06	-224.27	-190.47	-156.68			
7.89	-330.72	-295.24	-259.75	-224.27	-188.78	-153.30	-117.82			
8.26	-302.00	-264.82	-227.65	-190.47	-153.30	-116.13	-78.95			
8.64	-273.27	-234.41	-195.54	-156.68	-117.82	-78.95	-40.09			

Table 3E. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 10% increase in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	76.5	81	85.5	90	94.5	99	103.5			
6.38	-\$603.48	-\$574.75	-\$546.03	-\$517.30	-\$488.58	-\$459.85	-\$431.12			
6.76	-574.75	-544.34	-513.92	-483.51	-453.09	-422.68	-392.26			
7.13	-546.03	-513.92	-481.82	-449.71	-417.61	-385.50	-353.40			
7.51	-517.30	-483.51	-449.71	-415.92	-382.12	-348.33	-314.53			
7.89	-488.58	-453.09	-417.61	-382.12	-346.64	-311.15	-275.67			
8.26	-459.85	-422.68	-385.50	-348.33	-311.15	-273.98	-236.80			
8.64	-431.12	-392.26	-353.40	-314.53	-275.67	-236.80	-197.94			

Table 4E. Sensitivity analysis: estimated per acre returns (\$) at varying yields and prices at full production with a 20% increase in variable cost.

	Yield per acre (bushels)									
Unit Price (\$)	76.5	81	85.5	90	94.5	99	103.5			
6.38	-\$682.41	-\$653.68	-\$624.95	-\$596.23	-\$567.50	-\$538.78	-\$510.05			
6.76	-653.68	-623.26	-592.85	-562.43	-532.02	-501.60	-471.19			
7.13	-624.95	-592.85	-560.74	-528.64	-496.53	-464.43	-432.32			
7.51	-596.23	-562.43	-528.64	-494.84	-461.05	-427.25	-393.46			
7.89	-567.50	-532.02	-496.53	-461.05	-425.56	-390.08	-354.59			
8.26	-538.78	-501.60	-464.43	-427.25	-390.08	-352.90	-315.73			
8.64	-510.05	-471.19	-432.32	-393.46	-354.59	-315.73	-276.87			

Table 5E. Breakeven analysis: estimated per acre breakeven price point at varying yields.

Yield	76.50	81.00	85.50	90.00	94.50	99.00	103.50
Breakeven price	\$13.24	\$12.50	\$11.85	\$11.25	\$10.72	\$10.23	\$9.79

Table 6E. Breakeven analysis: estimated per acre breakeven yield point at varying prices.

Price	\$6.38	\$6.76	\$7.13	\$7.51	\$7.89	\$8.26	\$8.64
Breakeven yield	158.67	149.86	141.97	134.87	128.45	122.61	117.28

Appendix

- 1. Water/Irrigation
 - Water La Paz CRIR assessment fee portion of the budgets: the assessment fee includes an allocation of 5.75 acre-feet (AF) of water; there are two more rates considered: the next 3.5 acre-feet of water costs \$11/AF, finally, after that second threshold is met, there's an associated cost of \$19/AF.
- 2. Whole farm machinery cost assumptions and calculations.

Table A1. Whole Farm Machinery Cost Assumptions

	Width (feet)	Width (feet) Market Value		Expected Life (Years)	
Machine					
175 HP Tractor	N/A	\$ 180,000	1,805	10	
125 HP Tractor	N/A	\$ 80,000	560	15	
V-Ripper	8.0	\$ 22,000	670	10	
Offset Disk	18.0	\$ 30,000	431	15	
Moldboard Plow	9.3	\$ 35,000	194	15	
Landplane	16.0	\$ 18,000	162	15	
Lister	10.0	\$ 6,500	127	15	
Cotton Shredder/Root Puller	20.0	\$ 12,000	36	15	
Row Planter	24.0	\$ 40,000	55	15	
Row Cultivator	24.0	\$ 22,000	73	10	
Drill	20.0	\$ 25,000	161	15	
Fertilizer Spreader	40.0	\$ 18,000	143	20	
Fertilizer Injection System	20.0	\$ 2,500	165	20	
Boom Sprayer	60.0	\$ 9,500	146	20	

Table A2. Machinery Cost Calculations, on a per hour and per acre basis.

	Variab	le Costs	Fixed Cost	Total Cost						
Machine	Fuel & Lube	Fuel & Lube Repairs & Maint. D								
	Costs Per Hour									
175 HP Tractor	\$36.80	\$9.75	\$13.00	\$59.55						
125 HP Tractor	23.00	2.01	16.19	41.21						
V-Ripper	0.00	6.16	4.25	10.41						
Offset Disk	0.00	5.40	7.78	13.18						
Moldboard Plow	0.00	23.90	20.13	44.03						
Landplane	0.00	3.24	12.42	15.66						
Lister	0.00	2.40	5.71	8.11						
Cotton Shredder/Root Puller	0.00	2.63	36.76	39.39						
Row Planter	0.00	10.36	84.92	95.27						
Row Cultivator	0.00	2.58	38.23	40.81						
Drill	0.00	21.08	18.14	39.23						
Fertilizer Spreader	0.00	15.55	14.43	29.98						
Fertilizer Injection System	0.00	2.25	1.74	3.99						
Boom Sprayer	0.00	5.37	7.47	12.84						

Table A3. Combined equipment cost calculations, on a per hour and per acre basis.

Costs Per Acre

Field Operation	Acres/Hour	Operator Labor	Variable Costs	Fixed Costs	Total Costs
175 HP Tractor & V-Ripper	1.45	\$12.48	\$36.24	\$11.86	\$60.57
175 HP Tractor & Offset Disk	4.17	4.35	12.45	4.98	21.78
175 HP Tractor & Moldboard Plow	2.55	7.13	27.68	13.02	47.82
175 HP Tractor & Landplane	5.09	3.57	9.78	4.99	18.34
175 HP Tractor & Lister	3.18	5.70	15.38	5.88	26.97
125 HP Tractor & Shredder	6.64	2.73	4.17	7.98	14.88
175 HP Tractor & Planter	4.36	4.16	13.04	22.44	39.64
125 HP Tractor & Cultivator	6.55	2.77	4.22	8.32	15.30
125 HP Tractor & Drill	3.64	4.99	12.68	9.44	27.11
125 HP Tractor & Fertilizer Spreader	10.47	1.73	3.87	2.92	8.53
175 HP Tractor & Fertilizer Injection System	4.36	4.16	11.18	3.38	18.72
125 HP Tractor & Boom Sprayer	16.55	1.10	1.84	1.43	4.36



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This information has been reviewed by University faculty.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Edward C. Martin, Associate Vice President and Director of the Arizona Cooperative Extension System, The University of Arizona.

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