

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... ROSWELL-HAGERMAN AREA, CHAVES COUN' Projected 2018  
FARM SIZE..... 640 ACRES  
IRRIGATION TYPE..... FLOOD  
NUMBER OF CROPS..... 6

VERSION 1.0

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TABLE 1. Acreage Summary, Chaves County, Roswell-Hagerman Area, Projected 2018			
BUDGET AREA.....	ROSWELL-HAGERMAN AREA, CHAVES COUNTY		
FARM SIZE.....	640 ACRES		
IRRIGATION TYPE.....	FLOOD		
NUMBER OF CROPS.....	6		

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	60.00 *	16	960
ALFALFA	300.00	54	16,200
WHEAT	51.00	28	1,428
ARP	0.00		
FLEX IN OAT HAY	9.00	28	252
OAT HAY	60.00	21	1,260
PICKER COTTON	51.00	28	1,428
ARP	0.00		
FLEX IN OAT HAY	9.00	28	252
STRIPPER COTTON	51.00	28	1,428
ARP	0.00		
FLEX IN OAT HAY	9.00	28	252
CORN SILAGE	60.00	48	2,880
ROADS, DITCHES, HOMESTEAD	40.00		
TOTAL	640.00		26,340
ACRE FEET PER ACRE OF WATER RIGHTS			3.43

\* DOUBLE-CROPPED

TABLE 2. Basic cost information for the Roswell-Hagerman area, Chaves County, Projected 2018			
Item			
Labor Wage Rate:			
Equipment operators	\$/hour		\$8.55
General & Irrigators	\$/hour		\$7.50
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)	\$/pound		\$0.31
Phosphate (P205)	\$/pound		\$0.24
Seed:			
Alfalfa	\$/pound		\$4.00
Wheat	\$/pound		\$0.44
Cotton			
picker	\$/pound		\$7.55
stripper	\$/pound		\$7.55
Oat	\$/pound		\$0.44
Corn	\$/bag		\$240.00
Plastic Twine:	\$/roll		\$0.72
Natural gas (service charge)	\$/MCF		\$4.00
Wheat	\$/month		\$8.00
Diesel fuel	\$/gallon		\$2.70
Gasoline	\$/gallon		\$2.40
Electricity	cents/KwHr		7.84
LP Gas	\$/gallon		\$2.85
Employee Liability Insurance	\$/wages		\$20.00
Employee Benefits	percent/wages		18.00%
Labor Downtime	percent		25.00%
Financial Rates:			
Operating Capital Interest Rate	percent		5.50%
Land Interest Rate	percent		5.00%
Equipment Interest Rate	percent		5.50%
Real Interest Rate	percent		3.00%
Land Taxes	\$185.00 /acre (full value)		\$1.54
Personal Property Tax Rate - NR	\$/ \$1,000 (Assessed Value)		\$24.91
- R			\$16.12
Supervision Factors			
Field Crop-Irrigation	\$/labor hour		\$1.00
Field Crop-Equipment & General	\$/labor hour		\$0.50
Management Rate	percent		7.00%

TABLE 3. Overhead cost information for Roswell-Hagerman area, Chaves County, Projected 2018			
Item			
Electricity (Domestic & Shop)		\$248.92 per month	\$2,987
Telephone		\$124.46 per month	\$1,494
Accounting & Legal			\$1,765
Misc. Supplies & Hand Tools			\$2,656
Pickup and Auto			
miles	25,400	@ \$0.500 per mile	\$12,700
Insurance			
- general liability (non-employee)			\$1,929
- fire/theft			\$1,524
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$0
Building repairs and maintenance			\$1,458
Dues, fees, publications			\$445
Farmstead Equipment			\$189
Total			\$27,146
Total Per Planted Acre			\$45.24

Table 2. Farming costs and farm management costs - Road Programme area, James County

Category	Value	Percentage
DEPRECIATION	100	100
REPAIRS	100	100
TOTAL	200	200
DEPRECIATION PER HECTARE	100	100
REPAIRS PER HECTARE	100	100
TOTAL PER HECTARE	200	200

Table 3. Equipment costs per hectare from equipment with other management Road Programme area

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Equipment	Value	Percentage
TRACTOR	100	100
DISC	100	100
PLOW	100	100
DRILL	100	100
SPREADER	100	100
TOTAL	500	500

Source: Department of Agriculture, Fisheries and Food, 1990

TABLE 6. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
Planting dates: September 1 - September 31

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
<b>PURCHASED INPUTS</b>									
SEED	\$4.00	30.00 LBS		\$120.00				\$120.00	
INSECTICIDE (CUSTOM)	\$13.38	1 ACRE		\$13.38				\$13.38	
PUMP WATER*		16.00 AC. IN.							
SUBTOTAL				\$133.38				\$133.38	
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	145 HP	0.17 HR		\$1.45	\$7.57	\$1.89	\$2.76	\$13.67	
PLOW	145 HP	0.48 HR		\$4.10	\$10.69	\$4.94	\$6.71	\$26.44	
DISC (2X)	145 HP	0.34 HR		\$2.91	\$7.57	\$3.77	\$5.51	\$19.77	
PLANE (2X)	130 HP	0.48 HR		\$4.10	\$10.69	\$1.95	\$13.05	\$29.80	
DRILL	96 HP	0.21 HR		\$1.80	\$3.07	\$0.41	\$2.59	\$7.87	
DITCHER (2X)	130 HP	0.10 HR		\$0.86	\$2.23	\$0.40	\$2.05	\$5.53	
IRRIGATE (2X)		1.00 HR		\$7.50	\$24.07	\$0.00	\$2.18	\$33.75	
SUBTOTAL		2.78 HR		\$22.72	\$65.89	\$13.37	\$34.85	\$136.83	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.45 HR		\$3.80				\$3.80	
EMPLOYEE BENEFITS				\$4.09				\$4.09	
INSURANCE				\$0.45				\$0.45	
SUPERVISION AND MANAGEMENT				\$20.75				\$20.75	
SUBTOTAL		0.45 HR		\$0.45	\$28.65			\$29.10	
<b>TOTAL OPERATING EXPENSES</b>		3.23 HR		\$133.83	\$51.37	\$65.89	\$13.37	\$34.85	\$299.31

TABLE 7. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
Harvesting dates: May 20 - October 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$195.00	5.8 TONS (DELIVERED)						\$1,131.00
TOTAL								\$1,131.00
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PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
FERTILIZER (10-26-10)	\$0.22	200 LBS	\$44.00					\$44.00
INSECTICIDE (CUSTOM)	\$44.48	1 ACRE	\$44.48					\$44.48
HERBICIDE (CUSTOM)	\$28.11	1 ACRE	\$28.11					\$28.11
PLASTIC TWINE	\$0.72	170 FT/TON	\$0.18					\$0.18
ESTABLISHMENT: Principal		5 YEARS				\$59.86		\$59.86
: Interest						\$9.04		\$9.04
PUMP WATER*		54 AC. IN.						
SUBTOTAL			\$116.77			\$68.90		\$185.67
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PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (6X)		3.00 HR		\$22.50	\$81.23	\$0.00	\$7.36	\$111.10
SUBTOTAL		3.00 HR		\$22.50	\$81.23	\$0.00	\$7.36	\$111.10
<hr/>								
HARVEST OPERATIONS								
SWATHER (5X)	14 FT	0.55 HR		\$4.70	\$5.56	\$0.80	\$12.05	\$23.11
RAKE (5X)	96 HP	0.25 HR		\$2.14	\$3.65	\$0.47	\$1.55	\$7.81
BALER (5X)	145 HP	0.35 HR		\$2.99	\$7.80	\$2.00	\$22.72	\$35.51
FRONT END LOADER (5X)	130 HP	0.25 HR		\$2.14	\$5.57	\$1.78	\$4.60	\$14.08
HAUL	SEMI	0.50 HR		\$4.28	\$0.00	\$1.40	\$9.42	\$15.09
SUBTOTAL		1.90 HR		\$16.25	\$22.58	\$6.45	\$50.34	\$95.61
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OVERHEAD EXPENSES								
DOWNTIME		0.48 HR		\$4.06				\$4.06
EMPLOYEE BENEFITS				\$6.97				\$6.97
INSURANCE			\$0.77					\$0.77
LAND TAXES						\$1.54		\$1.54
SUPERVISION AND MANAGEMENT				\$83.12				\$83.12
OTHER EXPENSES			\$45.24					\$45.24
SUBTOTAL		0.48 HR	\$46.02	\$94.16		\$1.54		\$141.71
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TOTAL OPERATING EXPENSES		5.38 HR	\$162.78	\$132.90	\$103.81	\$6.45	\$128.14	\$534.09
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NET OPERATING PROFIT								\$596.91
INTEREST ON OPERATING CAPITAL		( \$81.11 @	5.50%	)				\$4.46
INTEREST ON EQUIPMENT INVESTMENT								\$23.06
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RETURN TO LAND AND RISK								\$569.40

\* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$1,131.00
VARIABLE OPERATING EXPENSES	\$273.05	
RETURN OVER VARIABLE EXPENSES	\$857.95	(GROSS MARGIN)
FIXED EXPENSES	\$128.14	
NET FARM INCOME	\$729.81	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$132.90	
NET OPERATING PROFIT	\$596.91	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$27.52	
RETURN TO LAND AND RISK	\$569.40	

TABLE 8. Wheat, flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
 Planting dates: August 15 - November 1  
 Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD	BASE	TOTAL
<b>GROSS RETURNS</b>				
WHEAT	\$7.33	40.00 CWT		\$293.33
DIRECT PAYMENT	\$0.00	40.00 CWT	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00			\$0.00
GRAZING	\$44.00	1.00 ACRE		\$44.00
<b>TOTAL</b>				<b>\$337.33</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$0.44	100 LBS	\$44.00		\$44.00
NITROGEN (N)	\$0.31	150 LBS	\$46.50		\$46.50
PHOSPHATE (P205)	\$0.24	50 LBS	\$12.00		\$12.00
INSECTICIDE	\$19.17	1 ACRE	\$19.17		\$19.17
PUMP WATER*		28 AC. IN.			
CROP INSURANCE	\$0.98		\$0.98		\$0.98
<b>SUBTOTAL</b>			<b>\$122.65</b>		<b>\$122.65</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	145 HP	0.48 HR		\$4.10	\$10.69	\$4.94	\$6.71	\$26.44
DISC (2X)	145 HP	0.34 HR		\$2.91	\$7.57	\$3.77	\$5.51	\$19.77
FERTILIZE	DEALER APPLIED							
DRILL	96 HP	0.21 HR		\$1.80	\$3.07	\$0.41	\$2.59	\$7.87
DITCHER (2X)	130 HP	0.10 HR		\$0.86	\$2.23	\$0.40	\$2.05	\$5.53
IRRIGATE (4X)		2.00 HR		\$15.00	\$42.12	\$0.00	\$3.82	\$60.94
<b>SUBTOTAL</b>		<b>3.13 HR</b>		<b>\$24.66</b>	<b>\$65.68</b>	<b>\$9.53</b>	<b>\$20.67</b>	<b>\$120.55</b>

HARVEST OPERATIONS								
COMBINE (CUSTOM)			\$28.04					\$28.04
HAUL (CUSTOM)			\$6.80					\$6.80
<b>SUBTOTAL</b>			<b>\$34.84</b>					<b>\$34.84</b>

OVERHEAD EXPENSES								
DOWNTIME		0.28 HR		\$2.42				\$2.42
EMPLOYEE BENEFITS				\$4.44				\$4.44
INSURANCE			\$0.49					\$0.49
LAND TAXES						\$1.54		\$1.54
SUPERVISION AND MANAGEMENT				\$26.13				\$26.13
OTHER EXPENSES			\$45.24					\$45.24
<b>SUBTOTAL</b>		<b>0.28 HR</b>	<b>\$45.74</b>	<b>\$32.98</b>		<b>\$1.54</b>		<b>\$80.26</b>

TOTAL OPERATING EXPENSES 3.41 HR \$203.23 \$57.64 \$65.68 \$9.53 \$22.21 \$358.30

NET OPERATING PROFIT (\$20.97)

INTEREST ON OPERATING CAPITAL ( \$83.03 @ 5.50% ) \$4.57  
 INTEREST ON EQUIPMENT INVESTMENT \$9.13

RETURN TO LAND AND RISK (\$34.66)

\* Pump water costs are shown under irrigation in the preharvest operations section.  
 BUDGET SUMMARY

GROSS RETURN		\$337.33		
VARIABLE OPERATING EXPENSES	\$278.45			
RETURN OVER VARIABLE EXPENSES		\$58.89	(GROSS MARGIN)	
FIXED EXPENSES	\$22.21			
NET FARM INCOME		\$36.68	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$57.64			
NET OPERATING PROFIT		(\$20.97)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$13.70			
RETURN TO LAND AND RISK		(\$34.66)		

TABLE 9. Oat hay, flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area,  
 Projected 2018  
 Planting dates: February 15 - April 1  
 Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OAT HAY	\$150.00	5.00 TONS (DELIVERED)						\$750.00
TOTAL								\$750.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$0.44	80 LBS	\$35.20					\$35.20
NITROGEN (N)	\$0.31	85 LBS	\$26.35					\$26.35
PUMP WATER*		21 AC. IN.						
SUBTOTAL			\$61.55					\$61.55
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC (2X)	145 HP	0.34 HR		\$2.91	\$7.57	\$3.77	\$5.51	\$19.77
DRILL	96 HP	0.21 HR		\$1.80	\$3.07	\$0.41	\$2.59	\$7.87
DITCHER (2X)	130 HP	0.05 HR		\$0.43	\$1.11	\$0.20	\$1.02	\$2.77
IRRIGATE (3X)		1.50 HR		\$11.25	\$31.59	\$0.00	\$2.86	\$45.70
SUBTOTAL		2.10 HR		\$16.38	\$43.35	\$4.39	\$11.99	\$76.10
HARVEST OPERATIONS								
SWATHER	14 FT	0.16 HR		\$1.37	\$1.62	\$0.23	\$3.51	\$6.72
RAKE	96 HP	0.05 HR		\$0.43	\$0.73	\$0.09	\$0.31	\$1.56
BALER	145 HP	0.05 HR		\$0.43	\$1.11	\$0.29	\$3.25	\$5.07
FRONT END LOADER	130 HP	0.05 HR		\$0.43	\$1.11	\$0.36	\$0.92	\$2.82
HAUL	SEMI	0.50 HR		\$4.28	\$0.00	\$1.40	\$9.42	\$15.09
SUBTOTAL		0.81 HR		\$6.93	\$4.58	\$2.37	\$17.40	\$31.27
OVERHEAD EXPENSES								
DOWNTIME		0.35 HR		\$3.01				\$3.01
EMPLOYEE BENEFITS				\$4.19				\$4.19
INSURANCE			\$0.47					\$0.47
LAND TAXES						\$1.54		\$1.54
SUPERVISION AND MANAGEMENT				\$54.68				\$54.68
OTHER EXPENSES			\$45.24					\$45.24
SUBTOTAL		0.35 HR	\$45.71	\$61.89		\$1.54		\$109.13
TOTAL OPERATING EXPENSES		3.26 HR	\$107.26	\$85.19	\$47.92	\$6.76	\$30.92	\$278.06
NET OPERATING PROFIT								\$471.94
INTEREST ON OPERATING CAPITAL		( \$43.29 @ 5.50% )						\$2.38
INTEREST ON EQUIPMENT INVESTMENT								\$11.07
RETURN TO LAND AND RISK								\$458.49

\* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$750.00	
VARIABLE OPERATING EXPENSES	\$161.94		
RETURN OVER VARIABLE EXPENSES		\$588.06	(GROSS MARGIN)
FIXED EXPENSES	\$30.92		
NET FARM INCOME		\$557.14	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$85.19		
NET OPERATING PROFIT		\$471.94	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$13.45		
RETURN TO LAND AND RISK		\$458.49	

TABLE 10. Upland cotton (picker), flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
 Planting dates: April 15 - June 1  
 Harvesting dates: October 1 - December 31

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
COTTON LINT	\$0.75	750 LBS		\$562.50
COTTON SEED	\$0.10	1,200 LBS		\$117.00
DIRECT PAYMENT	\$0.0000	750 LBS	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.1373	750 LBS	0.85	\$87.53
TOTAL				\$767.03

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$7.55	20 LBS	\$151.00		\$151.00
NITROGEN (N)	\$0.31	32 LBS	\$9.92		\$9.92
PHOSPHATE (P205)	\$0.24	40 LBS	\$9.60		\$9.60
HERBICIDE	\$15.88	1 ACRE	\$15.88		\$15.88
HERBICIDE (CUSTOM)	\$16.96	1 ACRE	\$16.96		\$16.96
INSECTICIDE (CUSTOM) 2X	\$37.15	1 ACRE	\$37.15		\$37.15
CROP INSURANCE			\$0.98		\$0.98
PUMP WATER*		28 AC. IN.			
SUBTOTAL			\$241.49		\$241.49

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		\$1.45	\$3.79	\$1.89	\$2.76	\$9.88
PLOW	145 HP	0.48 HR		\$4.10	\$10.69	\$4.94	\$6.71	\$26.44
FLOAT	130 HP	0.16 HR		\$1.37	\$3.56	\$0.64	\$2.78	\$8.35
FERTILIZE	DEALER APPLIED							
LISTER	130 HP	0.18 HR		\$1.54	\$4.01	\$1.07	\$4.08	\$10.70
PRE-IRRIGATE		0.75 HR		\$5.63	\$10.53	\$0.00	\$0.95	\$17.11
CULT & SPRAY	96 HP	0.26 HR		\$2.22	\$3.80	\$1.06	\$2.17	\$9.25
PLANTER	130 HP	0.26 HR		\$2.22	\$5.79	\$1.46	\$8.25	\$17.72
CULTIVATOR (3X)	96 HP	0.63 HR		\$5.39	\$9.21	\$2.16	\$2.33	\$19.09
HAND HOE (CUSTOM)			\$20.00					\$20.00
DITCHER (2X)	130 HP	0.10 HR		\$0.86	\$2.23	\$0.40	\$2.05	\$5.53
IRRIGATE (3X)		1.50 HR		\$11.25	\$31.59	\$0.00	\$2.86	\$45.70
SUBTOTAL		4.49 HR	\$20.00	\$36.03	\$85.20	\$13.62	\$34.93	\$189.77

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
COTTON PICKER (2X)	2-ROW	1.24 HR		\$10.60	\$20.25	\$8.87	\$124.14	\$163.86
HAUL (2X)	65 HP	1.00 HR		\$8.55	\$14.62	\$0.99	\$7.67	\$31.83
GIN COTTON (CUSTOM)			\$123.60					\$123.60
SUBTOTAL		2.24 HR	\$123.60	\$19.15	\$34.86	\$9.86	\$131.81	\$319.28

POSTHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SHREDDER	96 HP	0.14 HR		\$1.20	\$3.12	\$0.60	\$3.13	\$8.04
SUBTOTAL		0.14 HR		\$1.20	\$3.12	\$0.60	\$3.13	\$8.04

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	1.16 HR		\$9.88				\$9.88
EMPLOYEE BENEFITS			\$10.15				\$10.15
INSURANCE		\$1.13					\$1.13
LAND TAXES						\$1.54	\$1.54
SUPERVISION AND MANAGEMENT			\$58.20				\$58.20
OTHER EXPENSES		\$45.24					\$45.24
SUBTOTAL	1.16 HR	\$46.37	\$78.22			\$1.54	\$126.13

TOTAL OPERATING EXPENSES 8.03 HR \$431.46 \$134.60 \$123.18 \$24.08 \$171.41 \$884.72

NET OPERATING PROFIT (\$117.69)

INTEREST ON OPERATING CAPITAL ( \$149.49 @ 5.50% ) \$8.22  
 INTEREST ON EQUIPMENT INVESTMENT \$11.07

RETURN TO LAND AND RISK (\$136.99)

\* Pump water costs are shown under irrigation in the preharvest operations section.  
 BUDGET SUMMARY

GROSS RETURN		\$767.03	
VARIABLE OPERATING EXPENSES	\$578.72		
RETURN OVER VARIABLE EXPENSES	\$188.31	(GROSS MARGIN)	
FIXED EXPENSES	\$171.41		
NET FARM INCOME	\$16.91	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$134.60		
NET OPERATING PROFIT	(\$117.69)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$19.29		
RETURN TO LAND AND RISK	(\$136.99)		



TABLE 11. Upland cotton (stripper), flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
 Planting dates: April 15 - June 1  
 Harvesting dates: October 1 - December 31

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
COTTON LINT	\$0.73	750 LBS		\$547.50
COTTON SEED	\$0.10	1,200 LBS		\$117.00
DIRECT PAYMENT	\$0.0000	750 LBS	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.1373	750 LBS	0.85	\$87.53
TOTAL				\$752.03

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$7.55	25 LBS	\$188.75		\$188.75
NITROGEN (N)	\$0.31	32 LBS	\$9.92		\$9.92
PHOSPHATE (P205)	\$0.24	40 LBS	\$9.60		\$9.60
HERBICIDE	\$15.88	1 ACRE	\$15.88		\$15.88
HERBICIDE (CUSTOM)	\$15.82	1 ACRE	\$15.82		\$15.82
INSECTICIDE (CUSTOM) 2X	\$35.20	1 X/ACRE	\$35.20		\$35.20
CROP INSURANCE			\$0.98		\$0.98
PUMP WATER*		28 AC. IN.			
SUBTOTAL			\$276.16		\$276.16

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		\$1.45	\$3.79	\$1.89	\$2.76	\$9.88
FLOW	145 HP	0.48 HR		\$4.10	\$10.69	\$4.94	\$6.71	\$26.44
FLOAT	130 HP	0.16 HR		\$1.37	\$3.56	\$0.64	\$2.78	\$8.35
FERTILIZE	DEALER APPLIED							
LISTER	130 HP	0.18 HR		\$1.54	\$4.01	\$1.07	\$4.08	\$10.70
PRE-IRRIGATE		0.75 HR		\$5.63	\$10.53	\$0.00	\$0.95	\$17.11
CULT & SPRAY	96 HP	0.26 HR		\$2.22	\$3.80	\$1.06	\$2.17	\$9.25
PLANTER	130 HP	0.26 HR		\$2.22	\$5.79	\$1.46	\$8.25	\$17.72
CULTIVATOR (3X)	96 HP	0.63 HR		\$5.39	\$9.21	\$2.16	\$2.33	\$19.09
HAND HOE (CUSTOM)			\$20.00					\$20.00
DITCHER (2X)	130 HP	0.10 HR		\$0.86	\$2.23	\$0.40	\$2.05	\$5.53
IRRIGATE (3X)		1.50 HR		\$11.25	\$31.59	\$0.00	\$2.86	\$45.70
SUBTOTAL		4.49 HR	\$20.00	\$36.03	\$85.20	\$13.62	\$34.93	\$189.77

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
COTTON STRIPPER	96 HP	1.24 HR		\$10.60	\$27.62	\$6.06	\$34.45	\$78.73
HAUL	130 HP	1.50 HR		\$12.83	\$21.92	\$1.49	\$11.50	\$47.74
GIN COTTON (CUSTOM)			\$159.08					\$159.08
SUBTOTAL		2.74 HR	\$159.08	\$23.43	\$49.54	\$7.55	\$45.95	\$285.54

POSTHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SHREDDER	130 HP	0.14 HR		\$1.20	\$3.12	\$0.60	\$3.13	\$8.04
SUBTOTAL		0.14 HR		\$1.20	\$3.12	\$0.60	\$3.13	\$8.04

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	1.28 HR		\$10.94				\$10.94
EMPLOYEE BENEFITS			\$10.92				\$10.92
INSURANCE		\$1.21					\$1.21
LAND TAXES						\$1.54	\$1.54
SUPERVISION AND MANAGEMENT			\$57.40				\$57.40
OTHER EXPENSES		\$45.24					\$45.24
SUBTOTAL	1.28 HR	\$46.46	\$79.26			\$1.54	\$127.26

TOTAL OPERATING EXPENSES 8.65 HR \$501.69 \$139.91 \$137.85 \$21.77 \$85.55 \$886.77

NET OPERATING PROFIT (\$134.74)

INTEREST ON OPERATING CAPITAL ( \$167.85 @ 5.50% ) \$9.23  
 INTEREST ON EQUIPMENT INVESTMENT \$31.51

RETURN TO LAND AND RISK (\$175.48)

\* Pump water costs are shown under irrigation in the preharvest operations section.  
 BUDGET SUMMARY

GROSS RETURN		\$752.03	
VARIABLE OPERATING EXPENSES	\$661.31		
RETURN OVER VARIABLE EXPENSES	\$90.72	(GROSS MARGIN)	
FIXED EXPENSES	\$85.55		
NET FARM INCOME	\$5.17	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$139.91		
NET OPERATING PROFIT	(\$134.74)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$40.74		
RETURN TO LAND AND RISK		(\$175.48)	

TABLE 12. Corn silage, flood-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Projected 2018  
 Planting dates: April 1 - April 15  
 Harvesting dates: August 1 - August 31

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
CORN FOR SILAGE	\$24.00	STANDING	32.5	TONS					\$780.00
TOTAL									\$780.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
SEED	\$3.00	32 000		\$96.00					\$96.00
NITROGEN (N)	\$0.31	200 LBS		\$62.00					\$62.00
INSECTICIDE (CUSTOM) 2X	\$44.42	1 ACRE		\$44.42					\$44.42
CROP INSURANCE		400 DOLLARS		\$20.00					\$20.00
PUMP WATER*		48 AC. IN.							
SUBTOTAL				\$222.42					\$222.42
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	145 HP	0.17 HR		\$1.45	\$3.79	\$1.89	\$2.76	\$9.88	
PLOW	145 HP	0.48 HR		\$4.10	\$10.69	\$4.94	\$6.71	\$26.44	
FLOAT	130 HP	0.16 HR		\$1.37	\$3.56	\$0.64	\$2.78	\$8.35	
FERTILIZE	DEALER APPLIED								
LISTER	130 HP	0.18 HR		\$1.54	\$4.01	\$1.07	\$4.08	\$10.70	
PRE-IRRIGATE		0.75 HR		\$5.63	\$12.03	\$0.00	\$1.09	\$18.75	
CULT & SPRAY	96 HP	0.26 HR		\$2.22	\$3.80	\$1.06	\$2.17	\$9.25	
PLANTER	130 HP	0.26 HR		\$2.22	\$5.79	\$1.46	\$8.25	\$17.72	
CULTIVATOR (2X)	96 HP	0.42 HR		\$3.59	\$6.14	\$1.44	\$1.56	\$12.72	
DITCHER (2X)	130 HP	0.10 HR		\$0.86	\$2.23	\$0.40	\$2.05	\$5.53	
IRRIGATE (5X)		2.50 HR		\$18.75	\$60.17	\$0.00	\$5.45	\$84.38	
SUBTOTAL		5.28 HR		\$41.73	\$112.21	\$12.90	\$36.88	\$203.73	
OVERHEAD EXPENSES									
DOWNTIME		0.51 HR		\$4.57				\$4.57	
EMPLOYEE BENEFITS				\$7.51				\$7.51	
INSURANCE			\$0.83					\$0.83	
LAND TAXES							\$1.54	\$1.54	
SUPERVISION AND MANAGEMENT				\$58.82				\$58.82	
OTHER EXPENSES			\$45.24					\$45.24	
SUBTOTAL		0.51 HR	\$46.08	\$70.89				\$1.54	\$118.51
TOTAL OPERATING EXPENSES		5.79 HR	\$268.49	\$112.63	\$112.21	\$12.90	\$38.42	\$544.65	
NET OPERATING PROFIT								\$235.35	
INTEREST ON OPERATING CAPITAL		( \$142.49 @ 5.50% )						\$7.84	
INTEREST ON EQUIPMENT INVESTMENT								\$14.82	
RETURN TO LAND AND RISK								\$212.69	

\* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$780.00	
VARIABLE OPERATING EXPENSES	\$393.61		
RETURN OVER VARIABLE EXPENSES		\$386.39	(GROSS MARGIN)
FIXED EXPENSES	\$38.42		
NET FARM INCOME		\$347.98	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$112.63		
NET OPERATING PROFIT		\$235.35	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$22.66		
RETURN TO LAND AND RISK		\$212.69	

TABLE 13. Summary of per acre costs and returns for a 640 acre farm with above average management, Roswell-Hagerman area, Chaves County, Projected 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY	WHEAT	OAT HAY	PICKER COTTON	STRIPPER COTTON	CORN SILAGE
		TONS	CWT	TONS	LBS	LBS	TONS
PRIMARY YIELD		5.80	40.00	5.00	750.00	750.00	32.50
PRIMARY PRICE		\$195.00	\$195.00	\$150.00	\$0.75	\$0.73	\$24.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00	\$87.53	\$87.53	\$0.00
SECOND INCOME		\$0.00	\$44.00	\$0.00	\$117.00	\$117.00	\$0.00
GROSS RETURN		\$1,131.00	\$337.33	\$750.00	\$767.03	\$752.03	\$780.00
CASH OPERATING EXPENSES							
SEED	\$120.00		\$44.00	\$35.20	\$151.00	\$188.75	\$96.00
FERTILIZER		\$44.00	\$58.50	\$26.35	\$19.52	\$19.52	\$62.00
CHEMICALS	\$13.38	\$72.59	\$19.17		\$69.99	\$66.91	\$44.42
CROP INSURANCE			\$0.98		\$0.98	\$0.98	\$20.00
OTHER PURCHASED INPUTS		\$0.18					
CANAL WATER							
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$41.82	\$22.58	\$23.56	\$16.33	\$81.06	\$95.73	\$40.01
FUEL-IRRIGATION	\$24.07	\$81.23	\$42.12	\$31.59	\$42.12	\$42.12	\$72.21
REPAIRS	\$13.37	\$6.45	\$9.53	\$6.76	\$24.08	\$21.77	\$12.90
CUSTOM CHARGES			\$34.84		\$143.60	\$179.08	
LAND TAXES		\$1.54	\$1.54	\$1.54	\$1.54	\$1.54	\$1.54
OTHER EXPENSES	\$0.45	\$46.02	\$45.74	\$45.71	\$46.37	\$46.46	\$46.08
TOTAL CASH EXPENSES	\$213.10	\$274.59	\$279.98	\$163.48	\$580.25	\$662.85	\$395.14
RETURN OVER CASH EXPENSES	(\$213.10)	\$856.41	\$57.35	\$586.52	\$186.78	\$89.18	\$384.86
FIXED EXPENSES	\$34.85	\$126.60	\$20.67	\$29.39	\$169.87	\$84.01	\$36.88
TOTAL EXPENSES	\$247.94	\$401.19	\$300.65	\$192.86	\$750.12	\$746.86	\$432.02
NET FARM INCOME	(\$247.94)	\$729.81	\$36.68	\$557.14	\$16.91	\$5.17	\$347.98
LABOR AND MANAGEMENT COSTS	\$51.37	\$132.90	\$57.64	\$85.19	\$134.60	\$139.91	\$112.63
NET OPERATING PROFIT	(\$299.31)	\$596.91	(\$20.97)	\$471.94	(\$117.69)	(\$134.74)	\$235.35
CAPITAL COSTS							
INTEREST ON OPERATING CAPITAL		\$4.46	\$4.57	\$2.38	\$8.22	\$9.23	\$7.84
INTEREST ON EQUIPMENT INVESTMENT		\$23.06	\$9.13	\$11.07	\$11.07	\$31.51	\$14.82
TOTAL CAPITAL COSTS	\$0.00	\$27.52	\$13.70	\$13.45	\$19.29	\$40.74	\$22.66
RETURN TO LAND AND RISK	(\$299.31)	\$569.40	(\$34.66)	\$458.49	(\$136.99)	(\$175.48)	\$212.69

TABLE 14. Whole farm summary, Roswell-Hagerman area, Chaves County,  
Projected 2018

GROSS RETURNS		
ALFALFA HAY	300 ACRES	
CROP		\$339,300
WHEAT	51 ACRES	
CROP		\$14,960
GRAZING		\$2,244
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
SMALL GRAINS	87 ACRES	
CROP		\$65,250
UPLAND COTTON (PICKER)	51.00 ACRES	
COTTON LINT		\$28,688
COTTON SEED		\$5,967
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$4,464
UPLAND COTTON (STRIPPER)	51.00 ACRES	
COTTON LINT		\$27,923
COTTON SEED		\$5,967
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$4,464
CORN	60.00 ACRES	
CROP		\$46,800
GROSS RETURN		<u>\$546,026</u>
CASH OPERATING EXPENSES		
SEED		\$35,594
FERTILIZER		\$24,187
CHEMICALS		
CROP INSURANCE		\$1,350
OTHER PURCHASED INPUTS		\$53
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$23,321
FUEL-IRRIGATION		\$39,340
REPAIRS		\$6,925
CUSTOM CHARGES		\$18,233
LAND TAXES		\$922
OTHER EXPENSES		\$27,641
TOTAL CASH EXPENSES		<u>\$177,566</u>
RETURN OVER CASH EXPENSES		\$368,460
FIXED EXPENSES		\$40,884
TOTAL EXPENSES		\$218,450
NET FARM INCOME		\$327,576
LABOR AND MANAGEMENT COSTS		\$74,062
NET OPERATING PROFIT		\$253,514
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$3,139
INTEREST ON EQUIPMENT INVESTMENT		\$11,407
TOTAL CAPITAL COSTS		<u>\$14,545</u>
RETURN TO LAND AND RISK		<u><u>\$238,969</u></u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	\$219,769	28.39%
\$3,000 /ACRE	\$181,369	11.67%
\$5,000 /ACRE	\$142,969	7.34%
\$7,000 /ACRE	\$104,569	5.36%
\$9,000 /ACRE	\$66,169	4.22%

\* RETURN TO LAND AND RISK MINUS (INTEREST RATE TIMES LAND VALUE TIMES ACREAGE)

\*\* NET OPERATING PROFIT DIVIDED BY (MACHINERY AND EQUIPMENT VALUE PLUS LAND VALUE)