

COST & RETURNS SUMMARY FOR LEMONS

LEMON PRODUCTION
SANTA BARBARA COUNTY
1980

BY ETA TAKELE & P. THOMAS

LM-SC-80

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	YOUR COST
GROSS RECEIPTS FROM PRODUCTION:					
LEMONS	BOX	6.400	820.000	5248.00	
TOTAL RECEIPTS:				5248.00	
2. VARIABLE COSTS:					
PREHARVEST:					
NITROGEN	LBS.	0.110	200.000	22.00	
NITROGEN	LBS.	0.110	168.000	18.48	
ZINC	LBS.	0.390	230.000	89.70	
MAGNESIA	LBS.	0.250	5.000	1.25	
SPRAY OIL	GAL.	3.450	7.500	25.88	
CUSTOM FUNG SPRY	LBS.	46.000	1.000	46.00	
HERBICIDE	LBS.	3.600	3.600	12.96	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			12.30	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			13.25	
IRRIGATION (POWER-LUBE-REP)	ACIN	60.141	32.000	1924.50	
MACHINERY LABOR	HOOR	6.440	3.532	22.75	
IRRIGATION LABOR	HOOR	6.000	12.000	72.00	
INTEREST ON OPERATING CAP.	DOL.	0.14000	1269.343	174.52	
TOTAL PREHARVEST COSTS:				2435.63	
PREHARVEST COST PER BOX				2.9703	
HARVEST:					
TOTAL HARVEST COSTS:				0.00	
HARVEST COST PER BOX				0.0000	
TOTAL VARIABLE COSTS:				2435.63	
VARIABLE COST PER BOX				2.9703	
3. INCOME ABOVE VARIABLE COSTS:					
INCOME PER BOX				2812.37	
4. OVERHEAD:					
PERSONAL PROPERTY TAXES:				9.76	
REAL PROPERTY TAXES:				50.00	
TOTAL OVERHEAD:				59.76	
OVERHEAD COST PER BOX				0.0729	
TOTAL CASH COSTS:					
TOTAL CASH COST PER BOX				2495.38	
5. INCOME ABOVE ALL CASH COSTS:					
INCOME PER BOX				2752.62	
6. OWNERSHIP COSTS:					
DEPRECIATION:					
MACHINERY & EQUIPMENT	ACRE			32.29	
IRRIGATION SYSTEM	ACRE			344.06	
TOTAL DEPRECIATION:				376.35	
CAPITAL & INTEREST:					
MACHINERY & EQUIPMENT		0.14000	257.130	36.00	
IRRIGATION SYSTEM		0.14000	4467.169	625.40	
LAND		0.10670	6000.000	640.20	
TOTAL INTEREST CHARGE:				1301.60	
TOTAL FIXED COSTS:				1677.95	
FIXED COST PER BOX				2.0463	
7. TOTAL OF ABOVE COSTS:					
TOTAL COST PER BOX				4173.34	
8. NET RETURNS:					
NET RETURNS PER BOX				1074.66	
				1.3106	

157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
PERMANENT SET SPRINKLER IRRIGATION

UC Cooperative Extension
UPDATED 09/17/81
BUDGET RECORD NUMBER 160

DATE PRINTED: 09/17/81

HARVEST MONTH: 5

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 160.
 LEMON PRODUCTION
 SANTA BARBARA COUNTY BY ETA TAKELE & P. THOMAS
 1980

FUEL USED IN GALLONS PER HOUR

TRACTOR 50 HP	2.880	
TRACTOR 80 HP	3.360	
PICKUP 1/2 TON	4.000	
IRRIG PUMP 5HP	1.641	(KWHRS)

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
PICKUP 1/2 TON	0.200	
DRY FERT APPLIC.	1.155	TRACTOR 80 HP
BOOM SPRAY	0.804	TRACTOR 50 HP
PERM SET SPRINK*	420.103 (KWHRS)	IRRIG PUMP 5HP

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	FUEL TYPE
DRY FERT APPLIC.	1.155	0.000	0.000	1.155	1.155	0.000	0.000	0.000	1.155	1.155	0.000	0.000	5.775	DIESEL
BOOM SPRAY	0.804	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.804	0.000	2.413	DIESEL
PICKUP 1/2 TON	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	2.400	GAS
PERM SET SPRINK*	0.000	0.000	0.000	32.821	45.949	65.641	65.641	65.641	65.641	45.949	32.821	0.000	420.103	KWH
TOTALS	2.159	0.200	1.004	34.176	47.304	65.841	65.841	65.841	66.996	47.304	33.825	0.200	10.588	

GALLONS FUEL BY TYPE

2.40 GAS
 0.00 LP
 8.19 DIESEL
 0.00 N. GAS
 420.10 KWHRS
 157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
 PERMANENT SET SPRINKLER IRRIGATION

FUEL TYPES

1=GAS
 2=L.P.
 3=DIESEL
 4=N. GAS
 5=ELEC.

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MACHINERY OPERATIONS SUMMARY
 LEMON PRODUCTION
 SANTA BARBARA COUNTY
 1980

BUDGET RECORD NUMBER 160

BY ETA TAKELE & P. THOMAS

OPERATION	ITEM NO.	DATE	TIMES OVER	LABOR HOUR S	MACHINE HOURS	FUEL, OIL, LUB., PER ACRE	FIXED REP. COSTS PER ACRE
PICKUP 1/2 TON	14	JUNE	1.00	0.060	0.050	0.58	0.18
PICKUP 1/2 TON	14	JULY	1.00	0.060	0.050	0.58	0.18
PICKUP 1/2 TON	14	AUG	1.00	0.060	0.050	0.58	0.18
DRY FERT APPLIC.	5,	85 SEPT	1.00	0.378	0.313	1.98	10.26
PICKUP 1/2 TON	14	SEPT	1.00	0.060	0.050	0.58	0.18
DRY FERT APPLIC.	5,	85 OCT	1.00	0.378	0.313	1.98	10.26
PICKUP 1/2 TON	14	OCT	1.00	0.060	0.050	0.58	0.18
BOOM SPRAY	4,	86 NOV	1.00	0.307	0.254	2.92	8.20
PICKUP 1/2 TON	14	NOV	1.00	0.060	0.050	0.58	0.18
PICKUP 1/2 TON	14	DEC	1.00	0.060	0.050	0.58	0.18
DRY FERT APPLIC.	5,	85 JAN	1.00	0.378	0.313	1.98	10.26
BOOM SPRAY	4,	86 JAN	1.00	0.307	0.254	2.92	8.20
PICKUP 1/2 TON	14	JAN	1.00	0.060	0.050	0.58	0.18
PICKUP 1/2 TON	14	FEB	1.00	0.060	0.050	0.58	0.18
BOOM SPRAY	4,	86 MAR	1.00	0.307	0.254	2.92	8.20
PICKUP 1/2 TON	14	MAR	1.00	0.060	0.050	0.58	0.18
DRY FERT APPLIC.	5,	85 APR	1.00	0.378	0.313	1.98	10.26
PICKUP 1/2 TON	14	APR	1.00	0.060	0.050	0.58	0.18
DRY FERT APPLIC.	5,	85 MAY	1.00	0.378	0.313	1.98	10.26
PICKUP 1/2 TON	14	MAY	1.00	0.060	0.050	0.58	0.18
TOTALS				3.532	2.924	25.55	78.04

157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
 PERMANENT SET SPRINKLER IRRIGATION

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RANGING ANALYSIS FOR BUDGET RECORD NUMBER 160
 LEMON PRODUCTION
 SANTA BARBARA COUNTY BY ETA TAKELE & P. THOMAS
 1980

INCOME ABOVE VARIABLE COSTS
 WHEN THE PRICE OF LEMONS
 AND THE QUANTITY OF LEMONS

RANGES FROM 5.40 TO 7.40
 RANGES FROM 810.00 TO 830.00

PRICE OF LEMONS
 5.40 5.90 6.40 6.90 7.40

QUANTITY OF LEMONS		PRICE OF LEMONS				
		5.40	5.90	6.40	6.90	7.40
810.00	*	1938.37	2343.37	2748.37	3153.37	3558.37
	*					
815.00	*	1965.37	2372.87	2780.37	3187.87	3595.37
	*					
820.00	*	1992.37	2402.37	2812.37	3222.37	3632.37
	*					
825.00	*	2019.37	2431.87	2844.37	3256.87	3669.37
	*					
830.00	*	2046.37	2461.37	2876.37	3291.37	3706.37
	*					

INCOME ABOVE ALL CASH COSTS
 WHEN THE PRICE OF LEMONS
 AND THE QUANTITY OF LEMONS

RANGES FROM 5.40 TO 7.40
 RANGES FROM 810.00 TO 830.00

PRICE OF LEMONS
 5.40 5.90 6.40 6.90 7.40

QUANTITY OF LEMONS		PRICE OF LEMONS				
		5.40	5.90	6.40	6.90	7.40
810.00	*	1878.62	2283.62	2688.62	3093.62	3498.62
	*					
815.00	*	1905.62	2313.12	2720.62	3128.12	3535.62
	*					
820.00	*	1932.62	2342.62	2752.62	3162.62	3572.62
	*					
825.00	*	1959.62	2372.12	2784.62	3197.12	3609.62
	*					
830.00	*	1986.62	2401.62	2816.62	3231.62	3646.62
	*					

INCOME ABOVE ALL COSTS
 WHEN THE PRICE OF LEMONS
 AND THE QUANTITY OF LEMONS

RANGES FROM 5.40 TO 7.40
 RANGES FROM 810.00 TO 830.00

PRICE OF LEMONS
 5.40 5.90 6.40 6.90 7.40

QUANTITY OF LEMONS		PRICE OF LEMONS				
		5.40	5.90	6.40	6.90	7.40
810.00	*	200.66	605.66	1010.66	1415.66	1820.66
	*					
815.00	*	227.66	635.16	1042.66	1450.16	1857.66
	*					
820.00	*	254.66	664.66	1074.66	1484.66	1894.66
	*					
825.00	*	281.66	694.16	1106.66	1519.16	1931.66
	*					
830.00	*	308.66	723.66	1138.66	1553.66	1968.66
	*					

157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
 PERMANENT SET SPRINKLER IRRIGATION

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STORED DATA PAGE (NO CALCULATIONS) FOR LEMONS

BUDGET RECORD NUMBER 160

LEMON PRODUCTION
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BY ETA TAKELE & P. THOMAS

COSTS AND RETURNS WILL BE
DIVIDED BY 820.0 BOX
TO OBTAIN PER BOX COSTS

LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	
PRODUCTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	PRICE	SHARE	UNIT	ITEM	TYPE	
1 LEMONS	0.00	205.00	205.00	205.00	205.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.400	0.000	26.	49.	2.	
NUMBER OF UNITS																		
OPERATING INPUTS	RATE/UNIT												PRICE	SHARE	UNIT	ITEM	TYPE	HARV
6 NITROGEN	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.110	0.000	12.	211.	3.	
7 NITROGEN	0.00	0.00	0.00	42.00	42.00	0.00	0.00	0.00	42.00	42.00	0.00	0.00	0.110	0.000	12.	211.	3.	
8 ZINC	225.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.390	0.000	12.	225.	3.	
9 MAGNESIA	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.250	0.000	12.	226.	3.	
10 SPRAY OIL	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.450	0.000	5.	269.	3.	
11 CUSTOM FUNG SPRY	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.000	0.000	12.	278.	3.	
12 HERBICIDE	0.00	0.00	0.00	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.600	0.000	12.	250.	3.	
MACHINERY REQUIREMENTS	IMPLEMENTS = TIMES OVER, TRUCKS = # MILES/ACRE, TRACTORS = HRS/ACRE												# CREW	POWER	MACH	TYPE	HARV	
26 DRY FERT APPLIC.	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.000	0.000	5.	85.	4.	
27 BOOM SPRAY	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.000	0.000	4.	86.	4.	
28 PICKUP 1/2 TON	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.000	0.000	0.	14.	4.	
49 ACIN IRRIG WATER	0.00	0.00	0.00	2.50	3.50	5.00	5.00	5.00	5.00	3.50	2.50	0.00	0.00	0.00	21.	57.	100.	
50 NO. TIMES IRRIG	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00						

EQUIPMENT REQUIREMENTS	NUMBER OF UNITS												PROPORT	XXX	EQUIP	TYPE	XXXX
NONE STORED WITH BUDGET	COLUMNS --->												LABOR	POWER	SYST	LIFT	
LAND REQUIREMENTS	2	3	4	5	6	7	8						FIXED %	SHARE	UNIT	CODE	CODE
	CHARGE	NUMBER	VALUE OR	TAXES	PERENNIAL CROPS						VAR %	UNIT	CODE	CODE	CODE		
	METHOD	OF ACRES	COST/ACRE	PER ACRE	YRS LIFE												
	1.	157.00	6000.00	50.00	0.0	0.00											

UPRISE 2-49 REGION/COUNTY 42 UNASSIGNED 00000 MACH COMP 7 IRIG SYST 8 UNASSIGNED 0 EQUIP SET 1 HARVEST MONTH 5

157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
PERMANENT SET SPRINKLER IRRIGATION

UPDATED 09/17/81
MACHINERY COMPLEMENT 7
EQUIPMENT COMPLEMENT 1

GENERAL NAME CHANGE-->	LINE CHANGE	VALUE	LINE CHANGE	VALUE	LINE CHANGE	VALUE	LINE CHANGE	VALUE	LINE CHANGE	VALUE
MACHNRY NAME CHANGE-->	21	IRRIG PUMP SHP	86	BOOM SPRAY	226	MAGNESIA	269	SPRAY OIL	278	CUSTOM FUNG SPRY
MACH COMP CHGS-->	4. 2.	60.000000	4. 9.	200.000000	4. 16.	60.000000	5. 2.	70.000000	5. 3.	22000.000000
	5. 13.	22000.000000	5. 16.	70.000000	85. 3.	2500.000000	85. 10.	3.000000	85. 13.	2500.000000
	86. 4.	5.000000	86. 9.	76.000000	86. 10.	22.000000	86. 13.	10000.000000	14. 3.	36000.000000
	14. 10.	12.000000	14. 13.	36000.000000	14. 16.	1.000000	21. 2.	0.125000	21. 3.	5000.000000
	21. 16.	5.000000	57. 2.	0.125000	5. 9.	200.000000				
PARAMETER CHGS-->	1.	1.130000	3.	0.980000	10.	6.440000	12.	6.000000	18.	1.500000

CASH FLOW & INVESTMENT SUMMARY FOR LEMONS
 LEMON PRODUCTION
 SANTA BARBARA COUNTY
 1980

BUDGET RECORD NUMBER 160

BY ETA TAKELE & P. THOMAS

CATEGORY	UNIT	MONTHLY SUMMARY OF RECEIPTS AND EXPENSES												
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
RECEIPTS	\$/AC	0.00	1312.00	1312.00	1312.00	1312.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5248.00
OPERATING EXPENSES														
NITROGEN	\$/AC	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.00
NITROGEN	\$/AC	0.00	0.00	0.00	4.62	4.62	0.00	0.00	0.00	4.62	4.62	0.00	0.00	18.48
ZINC	\$/AC	87.75	0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.70
MAGNESIA	\$/AC	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
SPRAY OIL	\$/AC	0.00	0.00	0.00	25.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.88
CUSTOM FUNG SPRY	\$/AC	0.00	0.00	0.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.00
HERBICIDE	\$/AC	0.00	0.00	0.00	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.96
MACHINE LABOR COST	\$/AC	4.80	0.39	2.36	2.82	2.82	0.39	0.39	0.39	2.82	2.82	2.36	0.39	22.75
INTEREST ON OPER. CAP.	\$/AC	5.36	0.03	0.13	2.83	0.00	39.65	35.84	32.08	29.18	18.23	11.19	0.05	174.57
TRACTOR COST	\$/AC	2.93	0.00	1.17	1.76	1.76	0.00	0.00	0.00	1.76	1.76	1.17	0.00	12.30
EQUIPMENT COST	\$/AC	2.54	0.58	2.32	0.80	0.80	0.58	0.58	0.58	0.80	0.80	2.32	0.58	13.25
IRRIGATION COST	\$/AC	0.00	0.00	0.00	150.35	210.49	300.70	300.70	300.70	300.70	210.49	150.35	0.00	1924.50
IRRIG LABOR COST	\$/AC	0.00	0.00	0.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	0.00	72.00
TOTAL EXPENSES	\$/AC	125.38	1.00	5.99	260.21	229.49	350.31	346.51	342.75	348.88	247.71	176.40	1.02	2435.63

MONTHLY IRRIGATION AND LABOR REQUIREMENTS														
MACHINE LABOR	HR/AC	0.75	0.06	0.37	0.44	0.44	0.06	0.06	0.06	0.44	0.44	0.37	0.06	3.53
IRRIGATION LABOR	HR/AC	0.00	0.00	0.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.00	12.00
IRRIG. WATER APPLIED	ACIN	0.00	0.00	0.00	2.50	3.50	5.00	5.00	5.00	5.00	3.50	2.50	0.00	32.00

MACHINERY FIXED AND VARIABLE COSTS PER ACRE														
MACHINE	CODE	SIZE	PURCHASE PRICE	YEARS OWNED	ANN HOURS USED	FIXED COST PER ACRE			VARIABLE COST PER ACRE					HRS PER ACRE
						DEPR.	INTER.	TAX & INS	TOTAL	FUEL	LUBE	REPAIRS	TOTAL	
TRACTOR 50 HP	4	60.0	15960.	15.	200.	3.59	5.59	1.50	10.68	2.36	0.35	0.80	3.52	0.838
TRACTOR 80 HP	5	70.0	22000.	15.	200.	10.15	15.81	4.25	30.22	5.66	0.85	2.27	8.78	1.719
PICKUP 1/2 TON	14	0.5	36000.	12.	1740.	0.89	0.99	0.28	2.16	2.71	0.41	3.80	6.92	0.600
IRRIG PUMP 5HP	21	0.1	5000.	25.	6400.	7.32	15.18	4.50	27.01	16.79	0.25	16.22	33.26	0.600
SET SPRINK*	57	0.1	150900.	20.	5000.	336.74	610.22	173.84	*****	0.00	37.08	*****	*****	*****
ERT APPLIC.	85	10.0	2500.	3.	60.	13.28	6.33	1.46	21.07	0.00	0.02	1.08	1.10	1.563
BOON SPRAY	86	10.0	10000.	22.	76.	4.38	7.28	2.25	13.92	0.00	0.10	5.13	5.23	0.762

MACHINERY & EQUIPMENT INVESTMENT & COSTS PER ACRE
 TOTAL INVESTMENT 242360.

157 ACRES LEMONS ON 380 ACRE ORCHARD (AVOCADOS ALSO GROWN)
 PERMANENT SET SPRINKLER IRRIGATION

UC Cooperative Extension

UPDATED 09/17/81

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These are really .125

$$\frac{32 \text{ ac in/ac}}{.125 \text{ ac in/hr}} = 256 \text{ hr/acre}$$

256.0