

Orange

COST & RETURNS SUMMARY FOR ORANGES, NAVEL
PRODUCTION COSTS & RETURNS FOR
NAVEL ORANGES IN
RIVERSIDE COUNTY

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	YOUR COST
1. GROSS RECEIPTS FROM PRODUCTION:					
ORANGES, NAVEL	TON	160.000	9.000	1440.00	
TOTAL RECEIPTS:				1440.00	
2. VARIABLE COSTS:					
PREHARVEST:					
NITROGEN	LBS.	0.300	216.000	64.80	
PRUNING	ACRE	60.000	1.000	60.00	
HERBICIDE	ACRE	50.000	1.000	50.00	
INSECTICIDE	ACRE	130.000	1.000	130.00	
GIRDLING	TREE	0.100	108.000	10.80	
IRRIG DIST WATER	ACIN	3.300	45.000	148.50	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			2.34	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			17.30	
BUILDINGS (FUEL-LUBE-REPAIRS)	ACRE			4.41	
IRRIGATION (POWER-LUBE-REP)	ACIN	0.984	45.000	44.28	
MACHINERY LABOR	HOUR	5.450	6.464	35.23	
MACHINE CREW LABOR	HOUR	4.450	1.642	7.31	
IRRIGATION LABOR	HOUR	4.550	9.000	40.95	
INTEREST ON OPERATING CAP.	DOL.	0.11900	325.181	38.07	
TOTAL PREHARVEST COSTS:				653.99	
PREHARVEST COST PER TON				72.6658	
HARVEST:					
CUSTOM HARVEST	TON	11.000	9.000	99.00	
CUSTOM HAULING	TON	2.700	9.000	24.30	
INTEREST ON OPERATING CAP.	DOL.	0.11900	18.267	2.12	
TOTAL HARVEST COSTS:				125.47	
HARVEST COST PER TON				13.9415	
TOTAL VARIABLE COSTS:				779.47	
VARIABLE COST PER TON				86.6073	
3. INCOME ABOVE VARIABLE COSTS:					
INCOME PER TON				840.53	
				93.3927	
4. OVERHEAD:					
PERSONAL PROPERTY TAXES:				1.78	
REAL PROPERTY TAXES:				65.00	
MISC. OFFICE & BOOKKEEPING (2.50% OF TOTAL VARIABLE COSTS)				19.42	
TOTAL OVERHEAD:				86.27	
OVERHEAD COST PER TON				9.5850	
TOTAL CASH COSTS:				865.73	
TOTAL CASH COST PER TON				96.1924	
5. INCOME ABOVE ALL CASH COSTS:					
INCOME PER TON				754.27	
				83.8076	
6. OWNERSHIP COSTS:					
DEPRECIATION:					
MACHINERY & EQUIPMENT	ACRE			13.38	
IRRIGATION SYSTEM	ACRE			23.21	
BUILDINGS	ACRE			12.81	
TREES, VINES OR STAND	ACRE			140.00	
TOTAL DEPRECIATION:				189.39	
CAPITAL & INTEREST:					
MACHINERY&EQUIPMENT	0.11900	103.947		12.37	
IRRIGATION SYSTEM	0.11900	233.120		27.74	
BUILDINGS	0.10000	241.313		24.13	
TREES, VINES OR STAND	0.10000	3500.000		175.00	
LAND	0.10000	3500.000		350.00	
TOTAL INTEREST CHARGE:				589.24	
TOTAL FIXED COSTS:				778.64	
FIXED COST PER TON				86.5152	
7. TOTAL OF ABOVE COSTS:					
TOTAL COST PER TON				1644.37	
				182.7076	
8. NET RETURNS:					
NET RETURNS PER TON				-24.37	
				-2.7076	

BASED ON A 100 ACRE ORCHARD
 WITH 108 TREES/ACRE
 SPRINKLER IRRIGATED

UC Cooperative Extension

updated 11/23/60

CASH FLOW & INVESTMENT SUMMARY FOR ORANGES, NAVEL
 PRODUCTION COSTS & RETURNS FOR
 NAVEL ORANGES IN
 RIVERSIDE COUNTY

BUDGET RECORD NUMBER 370

CATEGORY	UNIT	MONTHLY SUMMARY OF RECEIPTS AND EXPENSES												TOTAL
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL RECEIPTS	\$/AC	180.00	360.00	360.00	360.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1620.00
OPERATING EXPENSES														
NITROGEN	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.80	64.80
PRUNING	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	60.00
HERBICIDE	\$/AC	0.00	0.00	0.00	25.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00
INSECTICIDE	\$/AC	44.20	0.00	0.00	42.90	0.00	42.90	0.00	0.00	0.00	0.00	0.00	0.00	130.00
BIRDLING	\$/AC	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.80
IRRIG DIST WATER	\$/AC	0.00	0.00	0.00	16.50	16.50	33.00	33.00	16.50	16.50	16.50	0.00	0.00	148.50
CUSTOM HARVEST	\$/AC	11.00	22.00	22.00	22.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99.00
CUSTOM HAULING	\$/AC	2.70	5.40	5.40	5.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.30
MACHINE LABOR COST	\$/AC	5.95	5.95	5.95	3.44	1.63	3.44	1.63	1.63	1.63	1.63	1.63	8.01	42.54
INTEREST ON OPER. CAP.	\$/AC	2.99	1.08	0.73	1.23	0.02	13.61	5.38	2.53	6.91	1.95	0.16	3.65	40.25
TRACTOR COST	\$/AC	0.00	0.00	0.00	0.74	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.85	2.34
EQUIPMENT COST	\$/AC	2.20	2.20	2.20	1.13	1.01	1.13	1.01	1.01	1.01	1.01	1.01	2.36	17.30
BLDG OPER. COST	\$/AC	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	4.41
IRRIGATION COST	\$/AC	0.00	0.00	0.00	4.92	4.92	9.84	9.84	4.92	4.92	4.92	0.00	0.00	44.28
IRRIG LABOR COST	\$/AC	0.00	0.00	0.00	4.55	4.55	9.10	9.10	4.55	4.55	4.55	0.00	0.00	40.95
TOTAL EXPENSES	\$/AC	80.21	37.00	36.65	128.19	56.41	139.13	60.33	31.52	95.89	30.93	3.17	80.03	779.47

MONTHLY IRRIGATION AND LABOR REQUIREMENTS														
MAINE LABOR	HR/AC	0.76	0.76	0.76	0.63	0.30	0.63	0.30	0.30	0.30	0.30	0.30	1.13	6.46
MACH. CREW LABOR	HR/AC	0.41	0.41	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	1.64
IRRIGATION LABOR	HR/AC	0.00	0.00	0.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	0.00	0.00	9.00
IRRIG. WATER APPLIED	ACIN	0.00	0.00	0.00	5.00	5.00	10.00	10.00	5.00	5.00	5.00	0.00	0.00	45.00

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 35 HP	3	35.0	9960.	15.	300.	1.69	2.23	0.31	4.23	1.43	0.21	0.69	2.34	0.946
PICKUP 1/2 TON	14	0.5	9000.	7.	435.	6.60	4.64	0.62	11.86	8.64	1.30	2.20	12.14	3.000
IRR PUMP 75 HP*	23	2.0	13670.	25.	3200.	3.52	6.20	0.96	10.68	20.31	0.30	2.24	22.85	22.500
WIND MACHINE*	38	1.0	6000.	15.	150.	3.66	3.96	0.61	8.24	4.10	0.62	0.04	4.76	1.520
ROSE DRAG SYST*	55	2.0	62100.	10.	5000.	19.69	21.54	2.79	44.02	0.00	0.42	21.01	21.43	22.500
DRY FERT APPLIC.	85	10.0	960.	15.	60.	0.30	0.32	0.05	0.68	0.00	0.00	0.16	0.16	0.313
WD SPRYR 200 GAL	88	15.0	2040.	15.	60.	1.12	1.21	0.19	2.52	0.00	0.00	0.24	0.24	0.547
FARM SHOP	2		42120.	35.		10.83	23.17	4.21	38.21	4.21		0.18	4.39	
ATISCL ORCH EQUIP	55		1755.	8.		1.97	0.97	0.18	3.12	0.00		0.02	0.02	

MACHINERY & EQUIPMENT INVESTMENT & COSTS PER ACRE	1476.	49.39	64.24	9.92	123.56	38.70	2.86	26.78	68.34
TOTAL INVESTMENT	147605.								

BASED ON A 100 ACRE ORCHARD
 WITH 108 TREES/ACRE
 SPRINKLER IRRIGATED

Updated 11/23/80

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 370
 PRODUCTION COSTS & RETURNS FOR
 NAVAL ORANGES IN
 RIVERSIDE COUNTY

FUEL USED IN GALLONS PER HOUR

TRACTOR 35 HP	2.100	
PICKUP 1/2 TON	4.000	
IRR PUMP 75 HP*	15.754	(KWHRS)
WIND MACHINE*	3.750	

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
PICKUP 1/2 TON	0.200	
WIND MACHINE*	3.750	
DRY FERT APPLIC.	0.722	TRACTOR 35 HP
WD SPRYR 200 GAL	0.632	TRACTOR 35 HP
HOSE DRAG SYST*	354.462	IRR PUMP 75 HP*

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.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.722	0.722	GAS
WD SPRYR 200 GAL	0.000	0.000	0.000	0.632	0.000	0.632	0.000	0.000	0.000	0.000	0.000	0.000	1.264	GAS
WIND MACHINE*	1.425	1.425	1.425	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.425	GAS
SP SPRAYER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	GAS
PICKUP 1/2 TON	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	12.000	GAS
HOSE DRAG SYST*	0.000	0.000	0.000	39.385	39.385	76.769	76.769	39.385	39.385	39.385	0.000	0.000	354.462	KWH
TOTALS	2.425	2.425	2.425	41.017	40.385	80.401	79.769	40.385	40.385	40.385	1.000	3.147	19.686	

GALLONS FUEL BY TYPE

19.69 GAS
 0.00 LP
 0.00 DIESEL
 0.00 N. GAS
 0.00 KWHRS

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

MACHINERY OPERATIONS SUMMARY
 PRODUCTION COSTS & RETURNS FOR
 NAVAL ORANGES IN
 RIVERSIDE COUNTY

BUDGET RECORD NUMBER 370

OPERATION	ITEM NO.	DATE	TIMES OVER	LABOR HOUR	MACHINE HOURS	FUEL, OIL, LUB. PER ACRE	FIXED REP. COSTS PER ACRE
WD SPRYR 200 GAL	3,	88 JUNE	1.00	0.331	0.274	0.86	2.61
SP SPRAYER	3,	37 JUNE	1.00	0.000	0.000	0.00	0.00
PICKUP 1/2 TON		14 JUNE	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 JULY	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 AUG	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 SEPT	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 OCT	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 NOV	5.00	0.300	0.250	1.01	0.99
DRY FERT APPLIC.	3,	85 DEC	1.00	0.378	0.313	1.01	2.22
WIND MACHINE*		38 DEC	0.38	0.000	0.380	1.19	2.06
PICKUP 1/2 TON		14 DEC	5.00	0.300	0.250	1.01	0.99
WIND MACHINE*		38 JAN	0.38	0.000	0.380	1.19	2.06
SP SPRAYER	3,	37 JAN	1.00	0.000	0.000	0.00	0.00
PICKUP 1/2 TON		14 JAN	5.00	0.300	0.250	1.01	0.99
WIND MACHINE*		38 FEB	0.38	0.000	0.380	1.19	2.06
PICKUP 1/2 TON		14 FEB	5.00	0.300	0.250	1.01	0.99
WIND MACHINE*		38 MAR	0.38	0.000	0.380	1.19	2.06
PICKUP 1/2 TON		14 MAR	5.00	0.300	0.250	1.01	0.99
WD SPRYR 200 GAL	3,	88 APR	1.00	0.331	0.274	0.86	2.61
SP SPRAYER	3,	37 APR	1.00	0.000	0.000	0.00	0.00
PICKUP 1/2 TON		14 APR	5.00	0.300	0.250	1.01	0.99
PICKUP 1/2 TON		14 MAY	5.00	0.300	0.250	1.01	0.99
TOTALS				4.640	5.380	19.64	27.53

BASED ON A 100 ACRE ORCHARD
 WITH 103 TREES/ACRE
 SPRINKLER IRRIGATED

updated 1/23/60

RANGING ANALYSIS FOR BUDGET RECORD NUMBER 370
 PRODUCTION COSTS & RETURNS FOR
 NAVAL ORANGES IN
 RIVERSIDE COUNTY

INCOME ABOVE VARIABLE COSTS

WHEN THE PRICE OF ORANGES, NAVAL		RANGES FROM		162.00 TO	198.00	
AND THE QUANTITY OF ORANGES, NAVAL		RANGES FROM		7.20 TO	10.80	
PRICE OF ORANGES, NAVAL						
		162.00	171.00	180.00	189.00	198.00

QUANTITY OF ORANGES, NA	7.20	386.93	451.73	516.53	581.33	646.13
	8.10	532.73	605.63	678.53	751.43	824.33
	9.00	678.53	759.53	840.53	921.53	1002.53
	9.90	824.33	913.43	1002.53	1091.63	1180.73
	10.80	970.13	1067.33	1164.53	1261.73	1358.93

INCOME ABOVE ALL CASH COSTS

WHEN THE PRICE OF ORANGES, NAVAL		RANGES FROM		162.00 TO	198.00	
AND THE QUANTITY OF ORANGES, NAVAL		RANGES FROM		7.20 TO	10.80	
PRICE OF ORANGES, NAVAL						
		162.00	171.00	180.00	189.00	198.00

QUANTITY OF ORANGES, NA	7.20	300.67	365.47	430.27	495.07	559.87
	8.10	446.47	519.37	592.27	665.17	738.07
	9.00	592.27	673.27	754.27	835.27	916.27
	9.90	738.07	827.17	916.27	1005.37	1094.47
	10.80	883.87	981.07	1078.27	1175.47	1272.67

INCOME ABOVE ALL COSTS

WHEN THE PRICE OF ORANGES, NAVAL		RANGES FROM		162.00 TO	198.00	
AND THE QUANTITY OF ORANGES, NAVAL		RANGES FROM		7.20 TO	10.80	
PRICE OF ORANGES, NAVAL						
		162.00	171.00	180.00	189.00	198.00

QUANTITY OF ORANGES, NA	7.20	-477.97	-413.17	-348.37	-283.57	-218.77
	8.10	-332.17	-259.27	-186.37	-113.47	-40.57
	9.00	-186.37	-105.37	-24.37	56.63	137.63
	9.90	-40.57	48.53	137.63	226.73	315.83
	10.80	105.23	202.43	299.63	396.83	494.03

BASED ON A 100 ACRE ORCHARD
 WITH 108 TREES/ACRE
 SPRINKLER IRRIGATED

updated 1/23/80

STORED DATA PAGE (NO CALCULATIONS) FOR ORANGES, NAVAL

BUDGET RECORD NUMBER 370

PRODUCTION COSTS & RETURNS FOR
NAVAL ORANGES IN
RIVERSIDE COUNTY

COSTS AND RETURNS WILL BE
DIVIDED BY 9.0 TON
TO OBTAIN PER TON COSTS

LINE	1 JAN	2 FEB	3 MAR	4 APR	5 MAY	6 JUN	7 JUL	8 AUG	9 SEP	10 OCT	11 NOV	12 DEC	13 PRICE	14 SHARE RENT	15 UNIT CODE	16 ITEM CODE	17 TYPE	18 XXXX	
PRODUCTION														NUMBER OF UNITS					
1 ORANGES, NAVAL	1.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00180.000	0.000	3.	53.	2.	0.	
OPERATING INPUTS														PRICE	SHARE RENT	UNIT CODE	ITEM CODE	TYPE	HARV CODE
5 NITROGEN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	216.00	0.300	0.000	12.	211.	3.	0.
7 PRUNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	60.000	0.000	0.000	7.	340.	3.	0.
8 HERBICIDE	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	50.000	0.000	0.000	7.	250.	3.	0.
9 INSECTICIDE	0.34	0.00	0.00	0.33	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	130.000	0.000	0.000	7.	240.	3.	0.
10 GIRDLING	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.100	0.000	0.000	24.	341.	3.	0.
11 IRRIG DIST WATER	0.00	0.00	0.00	5.00	5.00	10.00	10.00	5.00	5.00	5.00	0.00	0.00	3.300	0.000	0.000	11.	323.	3.	0.
12 CUSTOM HARVEST	1.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.000	0.000	0.000	3.	304.	3.	9.
13 CUSTOM HAULING	1.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.700	0.000	0.000	3.	306.	3.	9.

MACHINERY REQUIREMENTS	IMPLEMENTS = TIMES OVER, TRUCKS = # MILES/ACRE, TRACTORS = HRS/ACRE												# CREW POWER RACH TYPE HARV					
													LABOR	UNIT	CODE	TYPE	HARV CODE	
26 DRY FERT APPLIC.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.000	0.000	3.	85.	4.	0.
27 WD SPRYR 200 GAL	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	3.	88.	4.	0.
29 WIND MACHINE*	0.38	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.000	0.900	0.	38.	4.	0.
20 SPRAYER	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	3.	37.	4.	0.
30 PICKUP 1/2 TON	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.000	0.000	0.	14.	4.	0.
													SHARE FIXED %	SHARE VAR %	POWER UNIT	SYSA CODE	LIFT	
49 ACIN IRRIG WATER	0.00	0.00	0.00	5.00	5.00	10.00	10.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	23.	55.	40.
50 NO. TIMES IRRIG	0.00	0.00	0.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00			

EQUIPMENT REQUIREMENTS									NUMBER UNITS	PROPERT OF COST	XXX CODE	EQUIP CODE	TYPE	XXXX
51 FARM SHOP									1.000	1.000	0.	2.	5.	0.
52 MISCL ORCH EQUIP									1.000	1.000	0.	55.	5.	0.
COLUMNS --->														
LAND REQUIREMENTS	2 CHARGE METHOD	3	4 NUMBER OF ACRES	5 VALUE OR COST/ACRE	6 TAXES PER ACRE	7 PERENNIAL YRS LIFE	8 CROPS COST/ACRE							
71	1.		100.00	3500.00	65.00	25.0	3500.00							
ENTERPRISE 2-53 REGION/COUNTY	33 UNASSIGNED	00000	MACH CORP	7	IRIG SYST	7 UNASSIGNED	0 EQUIP SET	1	HARVEST MONTH	5				

BASED ON A 100 ACRE ORCHARD
WITH 108 TREES/ACRE
SPRINKLER IRRIGATED

updated 11/23/80

MACHINERY COMPLEMENT 7
EQUIPMENT COMPLEMENT 1

NO NAME CHANGES HAVE BEEN STORED WITH THIS BUDGET

PARAMETER CHGS-->	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE
1.	0.720000	2.	0.539000	3.	0.559000	4.	0.250000	5.	1.000000	6.	0.119000	
7.	0.000000	8.	0.040000	9.	0.250000	10.	5.450000	11.	4.450000	12.	4.550000	
15.	0.000000	17.	0.040000	25.	0.000000	26.	0.100000	27.	0.000000	28.	0.025000	

1980 default data