

COST & RETURNS SUMMARY FOR WATERMELONS

COSTS OF PRODUCING WATERMELON 1981
TULARE COUNTY BY VINCENT SCHWEERS, FARM ADVISOR AND P. THOMAS, SRA
YIELD: 15 TON PER ACRE

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	YOUR COST
1. GROSS RECEIPTS FROM PRODUCTION:					
WATERMELONS	TON	0.000	15.000	0.00	See notes
TOTAL RECEIPTS:				0.00	
2. VARIABLE COSTS:					
PREHARVEST:					
WATERMELON SEED	LBS.	6.100	3.000	18.30	
HAND HOEING	HOUR	4.500	3.000	13.50	
POLLINATION	HIVE	18.000	1.000	18.00	
AMMONIUM SULPHAT	LBS.	0.123	500.000	61.50	
AMMONIUM NITRATE	LBS.	0.077	100.000	7.70	
SEASONAL LABOR	HOUR	4.500	4.000	18.00	
INSECTICIDE	ACRE	12.500	3.000	37.50	
CUSTOM AIR PEST	ACRE	6.000	3.000	18.00	
PRUNING CULLS	HOUR	4.500	2.000	9.00	
DISTRICT TAX	ACRE	6.000	1.000	6.00	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			3.17	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			4.21	
BUILDINGS (FUEL-LUBE-REPAIRS)	ACRE			6.00	
IRRIGATION (POWER-LUBE-REP)	ACIN	1.018	27.000	27.47	
MACHINERY LABOR	HOUR	5.250	0.679	3.56	
IRRIGATION LABOR	HOUR	5.250	6.346	33.32	
INTEREST ON OPERATING CAP.	DOL.	0.14000	84.488	11.32	
TOTAL PREHARVEST COSTS:				296.63	
PREHARVEST COST PER TON				19.7752	
HARVEST:					
CONTRACT HARVEST	TON	20.000	15.000	300.00	
UNLOAD	HOUR	4.500	10.000	45.00	
DRY WALL BINS	EACH	9.000	60.000	540.00	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			11.73	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			0.06	
MACHINERY LABOR	HOUR	5.250	3.700	19.43	
INTEREST ON OPERATING CAP.	DOL.	0.14000	66.680	9.34	
TOTAL HARVEST COSTS:				925.56	
HARVEST COST PER TON				61.7038	
TOTAL VARIABLE COSTS:				1222.18	
VARIABLE COST PER TON				81.4789	
3. INCOME ABOVE VARIABLE COSTS:					
INCOME PER TON					
4. OVERHEAD:					
PERSONAL PROPERTY TAXES:				3.18	
REAL PROPERTY TAXES:				23.00	
MISC. OFFICE & BOOKKEEPING (1.50% OF TOTAL VARIABLE COSTS)				18.33	
TOTAL OVERHEAD:				44.51	
OVERHEAD COST PER TON				2.9673	
TOTAL CASH COSTS:				1266.69	
TOTAL CASH COST PER TON				84.4462	
5. INCOME ABOVE ALL CASH COSTS:					
INCOME PER TON					
6. OWNERSHIP COSTS:					
DEPRECIATION:					
MACHINERY & EQUIPMENT	ACRE			7.16	
IRRIGATION SYSTEM	ACRE			29.19	
BUILDINGS	ACRE			22.12	
TOTAL DEPRECIATION:				58.52	
CAPITAL & INTEREST:					
MACHINERY&EQUIPMENT		0.14000	78.679	11.02	
IRRIGATION SYSTEM		0.14000	292.089	40.89	
BUILDINGS		0.10670	420.342	44.85	
LAND		0.10670	4500.000	480.15	
TOTAL INTEREST CHARGE:				576.91	
TOTAL FIXED COSTS:				635.42	
FIXED COST PER TON				42.3615	
7. TOTAL OF ABOVE COSTS:					
TOTAL COST PER TON				1902.12	
				126.8077	
8. NET RETURNS:					
NET RETURNS PER TON					See notes

BASED ON 30 ACRES WATERMELONS ON 320 ACRE FARM
 FURROW IRRIGATION: 27 AC.IN. PER YEAR
 LAND OWNERSHIP BASIS
 DATE PRINTED: 09/21/81

HARVEST MONTH: 8

UPDATED 09/21/81
 BUDGET RECORD NUMBER 238

CASH FLOW & INVESTMENT SUMMARY FOR WATERMELONS

BUDGET RECORD NUMBER 238

COSTS OF PRODUCING WATERMELON 1981
 TULARE COUNTY BY VINCENT SCHWEERS, FARM ADVISOR AND P. THOMAS, SRA
 YIELD: 15 TON PER ACRE

CATEGORY	UNIT	MONTHLY SUMMARY OF RECEIPTS AND EXPENSES												TOTAL	
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
TOTAL RECEIPTS	\$/AC														0.00
OPERATING EXPENSES															
WATERMELON SEED	\$/AC			18.30											18.30
HAND HOEING	\$/AC			6.75	6.75										13.50
POLLINATION	\$/AC				18.00										18.00
AMMONIUM SULPHAT	\$/AC				61.50										61.50
AMMONIUM NITRATE	\$/AC							3.85	3.85						7.70
SEASONAL LABOR	\$/AC						9.00	9.00							18.00
INSECTICIDE	\$/AC						12.50	25.00							37.50
CUSTOM AIR PEST	\$/AC						6.00	12.00							18.00
PRUNING CULLS	\$/AC							9.00							9.00
CONTRACT HARVEST	\$/AC								240.00	60.00					300.00
UNLOAD	\$/AC								36.00	9.00					45.00
DRY WALL BINS	\$/AC								432.00	108.00					540.00
DISTRICT TAX	\$/AC												6.00		6.00
MACHINE LABOR COST	\$/AC	1.65		3.29	8.70	3.64		4.57	1.14						22.99
INTEREST ON OPER. CAP.	\$/AC	0.40		2.03	5.42	1.68	1.80	8.74	0.03				0.55		20.65
TRACTOR COST	\$/AC	1.47		2.46	5.33	2.20		2.76	0.69						14.90
EQUIPMENT COST	\$/AC	0.73		1.19	1.68	0.61		0.05	0.01						4.27
BLDG OPER. COST	\$/AC	0.76		0.76	0.76	0.76	0.76	0.76	0.76				0.76		6.08
IRRIGATION COST	\$/AC				2.04	5.09	8.14	12.21							27.47
IRRIG LABOR COST	\$/AC				1.75	3.51	12.27	15.78							33.32
TOTAL EXPENSES	\$/AC	5.02	0.00	37.38	125.48	50.82	81.83	756.72	179.64	0.00	0.00	0.00	7.31	1222.18	

MONTHLY IRRIGATION AND LABOR REQUIREMENTS														
MACHINE LABOR	HR/AC	0.32		0.63	1.66	0.69	0.00	0.87	0.22					4.38
IRRIGATION LABOR	HR/AC				0.33	0.67	2.34	3.01						6.35
IRRIG. WATER APPLIED	ACIN				2.00	5.00	8.00	12.00						27.00

MACHINE	CODE	SIZE	PURCHASE PRICE	YEARS OWNED	ANN HOURS USED	FIXED COST PER ACRE			VARIABLE COST PER ACRE					HRS PER ACRE
						DEPR.	INTER.	TAX BINS	TOTAL	FUEL	LUBE	REPAIRS	TOTAL	
TRACTOR 40 HP	2	40.0	11400.	20.	600.	2.79	5.05	1.44	9.27	6.20	0.93	4.60	11.73	3.364
TRACTOR 60 HP	3	60.0	16320.	20.	600.	0.73	1.33	0.38	2.43	1.71	0.26	1.21	3.17	0.617
IRR PUMP 15HP *	21	0.7	9600.	25.	3200.	4.24	8.78	2.60	15.63	19.21	0.29	3.45	22.95	38.571
TANDEM DISK	66	12.0	3840.	15.	130.	0.93	1.18	0.35	2.45	0.00	0.03	1.43	1.46	0.521
DRY FERT APPLIC.	69	17.0	4520.	15.	60.	0.84	1.06	0.31	2.21	0.00	0.01	0.44	0.45	0.184
SPIKE HARROW	73	12.0	2300.	15.	110.	0.42	0.53	0.16	1.10	0.00	0.01	0.38	0.39	0.331
SPRINGTOOTH	75	6.0	1680.	15.	200.	0.87	1.11	0.32	2.30	0.00	0.04	1.80	1.83	1.719
2 UNT PLANTER JR	112	17.0	400.	15.	75.	0.08	0.11	0.03	0.22	0.00	0.00	0.07	0.07	0.257
FURROW IRRIG SYS*	132	0.7	45900.	10.	5000.	24.95	32.11	7.97	65.02	0.00	0.09	4.44	4.53	38.571
DITCHER	138	25.0	2880.	15.	30.	0.23	0.29	0.09	0.61	0.00	0.00	0.02	0.02	0.048
BIN TRAILER	148	51.0	780.	15.	150.	0.27	0.37	0.11	0.75	0.00	0.00	0.06	0.06	0.899
FARM SHOP	2		16848.	35.		14.44	32.96	5.62	53.01	5.62		0.24	5.86	
TOOLS-SHOP EQUIP	4		4914.	15.		7.64	11.36	1.64	20.64	0.00		0.22	0.22	
FUELTANK 550 GAL	18		187.	30.		0.08	0.53	0.06	0.68	0.00		0.00	0.00	

MACHINERY & EQUIPMENT INVESTMENT & COSTS PER ACRE
 4052. 58.52 96.76 21.06 176.34 32.73 1.65 18.35 52.72
 TOTAL INVESTMENT 121569.

BASED ON 30 ACRES WATERMELONS ON 320 ACRE FARM
 FURROW IRRIGATION: 27 AC.IN. PER YEAR
 LAND OWNERSHIP BASIS
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UPDATED 09/21/81

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 238
 COSTS OF PRODUCING WATERMELON 1981
 TULARE COUNTY BY VINCENT SCHWEERS, FARM ADVISOR AND P. THOMAS, SRA
 YIELD: 15 TON PER ACRE

FUEL USED IN GALLONS PER HOUR

TRACTOR 40 HP	1.920	
TRACTOR 60 HP	2.880	
IRR PUMP 15HP *	9.190	(KWHRS)

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
TANDEM DISK	0.825	TRACTOR 60 HP
SPIKE HARROW	0.000	TRACTOR 60 HP
2 UNT PLANTER JR	0.542	TRACTOR 40 HP
SPRINGTOOTH	1.210	TRACTOR 40 HP
DRY FERT APPLIC.	0.388	TRACTOR 40 HP
DITCHER	0.127	TRACTOR 60 HP
BIN TRAILER	0.380	TRACTOR 40 HP
FURROW IRRIG SYS*	354.462 (KWHRS)	IRR PUMP 15HP *

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	FUEL TYPE
TANDEM DISK	0.825	0.000	0.825	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.650	DIESEL
SPIKE HARROW	0.000	0.000	1.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.050	DIESEL
2 UNT PLANTER JR	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.542	DIESEL
SPRINGTOOTH	0.000	0.000	0.000	2.420	1.210	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.630	DIESEL
DRY FERT APPLIC.	0.000	0.000	0.000	0.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.388	DIESEL
DITCHER	0.000	0.000	0.000	0.127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.127	DIESEL
BIN TRAILER	0.000	0.000	0.000	0.000	0.000	0.000	1.518	0.380	0.000	0.000	0.000	0.000	1.898	DIESEL
FURROW IRRIG SYS*	0.000	0.000	0.000	26.256	65.641	105.026	157.538	0.000	0.000	0.000	0.000	0.000	354.462	KWH
TOTALS	0.825	0.000	2.417	29.191	66.851	105.026	159.057	0.380	0.000	0.000	0.000	0.000	9.285	

GALLONS FUEL BY TYPE

0.00 GAS
 0.00 LP
 9.28 DIESEL
 0.00 N. GAS
 354.46 KWHRS

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

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MACHINERY OPERATIONS SUMMARY BUDGET RECORD NUMBER 238
 COSTS OF PRODUCING WATERMELON 1981
 TULARE COUNTY BY VINCENT SCHWEERS, FARM ADVISOR AND P. THOMAS, SRA
 YIELD: 15 TON PER ACRE

OPERATION	ITEM NO.	DATE	TIMES OVER	LABOR HOUR S	MACHINE HOUR S	FUEL,OIL, LUB., REP. PER ACRE	FIXED COSTS PER ACRE
TANDEM DISK	3,	66 JAN	1.00	0.315	0.260	2.20	2.36
TANDEM DISK	3,	66 MAR	1.00	0.315	0.260	2.20	2.36
SPIKE HARROW	73	MAR	1.00	0.000	0.331	0.39	1.10
2 UNT PLANTER JR	2,112	MAR	1.00	0.311	0.257	1.06	1.00
SPRINGTOOTH	2,	75 APR	2.00	1.386	1.146	5.62	5.01
DRY FERT APPLIC.	2,	69 APR	1.00	0.222	0.184	1.15	2.77
DITCHER	3,138	APR	1.00	0.048	0.040	0.24	0.79
SPRINGTOOTH	2,	75 MAY	1.00	0.693	0.573	2.81	2.50
BIN TRAILER	2,148	JULY	4.00	0.870	0.719	2.81	2.78
BIN TRAILER	2,148	AUG	1.00	0.217	0.180	0.70	0.69

TOTALS 4.379 3.950 19.18 21.35

BASED ON 30 ACRES WATERMELONS ON 320 ACRE FARM
 FURROW IRRIGATION: 27 AC.IN. PER YEAR
 LAND OWNERSHIP BASIS
 DATE PRINTED: 09/21/81

UPDATED 09/21/81

Costs of production for Watermelon 1981
Tulare County By Vincent Schweers, Farm Advisor and P. Thomas, SRA
Yield: 15 ton per acre

Based on 30 acres watermelon on 320 acre farm
Furrow Irrigation: 27 ac. in. per year
Land ownership basis

Additional Notes and Assumptions:

1. Land preparation:

January: Tandem disc, 12' pulled by 60 hp tractor - 1 pass over field
March: Tandem disc, 12' and spike tooth harrow, 12' pulled together by
60 hp tractor - 1 pass over field

2. Plant in March:

Row spacing: growers alternate rows at 7' and 10' spacings and turn the
vines into the 10' space as they form - the 7' space is
used for an irrigation ditch

Seed: 3 lbs/acre @ \$6.10/lb = \$18.30/acre

Plant: 2 unit Planter Jr used - 2 rows planted at a time - 9' planter
(17' covered at a time)

3. Hand hoe in March and April:

Plants are thinned

Labor: 1.5 hrs/acre each month @ \$4.50/hour = \$6.75/acre each month

4. Cultivation:

Spring tooth harrow, 6' pulled by 40 hp tractor

April - 2 passes over field

May - 1 pass over field

5. Fertilizer:

Ammonium Sulfate in April

500 lbs/acre (80 lbs N/acre) @ \$.123/lb = \$61.50/acre

Application - Dry fertilizer applicator, 10' with 40hp tractor

Applied about 18 inches from the plants by going down
the 7' center. 17' of the ground covered
(not sprayed) in 1 pass.

Ammonium Nitrate, liquid is put into the water system in 4 irrigations

25 lbs/acre (5 lbs N/acre) @ \$.077/lb = \$1.925/acre each irrigation

June - 2 irrigations

July - 2 irrigations

6. Turn Runners in May and June:

Labor: 2 hrs/acre each month @ \$4.50/hr = \$9.00/acre each month

7. Pollination in April:

1 hive/acre @ \$18.00/hive = \$36.00/acre

8. Pest control:

May: Materials - insecticide for applied control \$12.50/acre

Application - Custom by air \$6.00/acre

June: Materials - insecticide for mite control

\$12.50/acre x 2 applications = \$25.00/acre

Application - custom by air \$6.00/acre x 2 applications = \$12.00/acre

9. Prune culls in June:

Pruning helps to increase fruit size and obtain greater uniformity of size and shape

Labor: 2 hrs/acre @ \$4.50/hr = \$9.00/acre

10. Irrigation:

Furrow Irrigation system

Pump 15 hp, 100 feet left, 300 gal/min = .7 ac.in./hr

Irrigation Labor - 1/3 hr per application/acre

Ditcher pulled by 60hp tractor used to make irrigation ditches in April before first irrigation

Irrigation Schedule:

<u>Month</u>	<u>#Irrigations</u>	<u>Total ac.in.</u>
April	1	2
May	2	5
June	7	8
July	9	12
Totals	19	27

Irrigation District tax: \$6.00/acre paid in December

11. Harvest in July and August:

Approx. 5 pickings - every 5 days

Yield: July 12 ton/acre 4 pickings

August 3 ton/acre 1 picking

15 ton/acre 5 pickings

Price: ranges from \$80 to \$200 per ton

Tulare county is usually one of the first in the state with watermelon and the price at the beginning of the harvest may be high. As other areas start harvesting the price will begin to fall. Growers may choose to stop picking when the price is less than the harvest cost per carton.

Contract Harvest includes picking, loading and hauling from field \$20/ton

Unload watermelons from bin trailers into drywall bins:

1 hour/picking/acre x 2 men

July 8 hrs/acre @ \$4.50/hr = \$36.00/acre

August 2 hrs/acre @ \$4.50/hr = 9.00/acre

\$45.00/acre

Drywall bins hold about 500 lbs watermelons each

July 48 drywall bins needed per acre @ \$9.00/bin = \$432.00/acre

August 12 drywall bins needed per acre @ \$9.00/bin = 108.00/acre

\$540.00/acre

Bin Trailer:

6 rows harvested at a time (51' covered) pulled by 40 hp tractor

July - 4 passes in field

August - 1 pass in field

12. Both tractors are diesel - cost of diesel is \$.96/gal