

**COST & RETURNS SUMMARY FOR ONIONS**  
**SAMPLE COSTS TO PRODUCE DRY ONIONS (FRESH MARKET)**  
**1981**  
**KERN CO**

BY: JOHN GUERARD & LAH

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	YOUR COST
<b>1. GROSS RECEIPTS FROM PRODUCTION:</b>					
ONIONS	SACK	7.000	1000.000	7000.00	
<b>TOTAL RECEIPTS:</b>				7000.00	
<b>2. VARIABLE COSTS:</b>					
<b>PREHARVEST:</b>					
FERTILIZER	LBS.	9.145	400.000	58.00	
FERTILIZER APP	ACRE	5.000	1.000	5.00	
ONIONS, SEED	LBS.	30.000	3.000	90.00	
HERBICIDE	APLC	33.500	4.000	134.00	
NITROGEN	LBS.	0.300	199.000	59.70	
PEST TREATMENT	APLC	7.500	2.000	15.00	
HAND WEEDING	HOUR	4.900	10.000	49.00	
IRRIG DIST WATER	ACIN	2.083	36.000	74.99	
RENT SPRINKLER	MO.	21.430	7.000	150.01	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			26.92	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			30.40	
IRRIGATION (POWER-LUBE-REP)	ACIN	1.021	36.000	36.76	
MACHINERY LABOR	HOUR	5.650	7.504	42.39	
IRRIGATION LABOR	HOUR	4.900	5.500	26.95	
INTEREST ON OPERATING CAP.	DOL.	0.14000	320.283	43.36	
<b>TOTAL PREHARVEST COSTS:</b>				842.48	
<b>PREHARVEST COST PER SACK</b>				0.8425	
<b>HARVEST:</b>					
CUSTOM HARVEST	SACK	2.550	1000.000	2550.00	
<b>TOTAL HARVEST COSTS:</b>				2550.00	
<b>HARVEST COST PER SACK</b>				2.5500	
<b>TOTAL VARIABLE COSTS:</b>				3392.48	
<b>VARIABLE COST PER SACK</b>				3.3925	
<b>3. INCOME ABOVE VARIABLE COSTS:</b>					
<b>INCOME PER SACK</b>				3607.52	
<b>4. OVERHEAD:</b>					
PERSONAL PROPERTY TAXES:				5.83	
CASH RENT:				200.00	
MISC. OFFICE & BOOKKEEPING ( 8.00% OF TOTAL VARIABLE COSTS)				271.40	
<b>TOTAL OVERHEAD:</b>				477.23	
<b>OVERHEAD COST PER SACK</b>				0.4772	
<b>TOTAL CASH COSTS:</b>				3869.72	
<b>TOTAL CASH COST PER SACK</b>				3.8697	
<b>5. INCOME ABOVE ALL CASH COSTS:</b>					
<b>INCOME PER SACK</b>				3130.28	
<b>6. OWNERSHIP COSTS:</b>					
<b>DEPRECIATION:</b>					
MACHINERY & EQUIPMENT	ACRE			18.06	
<b>TOTAL DEPRECIATION:</b>				18.06	
<b>CAPITAL &amp; INTEREST:</b>					
MACHINERY & EQUIPMENT		0.14000	154.578	21.64	
<b>TOTAL INTEREST CHARGE:</b>				21.64	
<b>TOTAL FIXED COSTS:</b>				39.70	
<b>FIXED COST PER SACK</b>				0.0397	
<b>7. TOTAL OF ABOVE COSTS:</b>					
<b>TOTAL COST PER SACK</b>				3909.41	
<b>8. NET RETURNS:</b>					
<b>NET RETURNS PER SACK</b>				3090.59	

YIELD OF 25 TONS PER ACRE (1000 50# SACKS)  
 BASED ON 80 ACRES OF ONIONS ON A TOTAL FARM OF 700 ACRES  
 PLANTED IN DEC-HARVESTED IN JULY SPRINKLER IRRIGATED 09/28/81  
 DATE PRINTED: 09/28/81 HARVEST MONTH: 7 BUDGET RECORD NUMBER 219

CASH FLOW & INVESTMENT SUMMARY FOR ONIONS  
 SAMPLE COSTS TO PRODUCE DRY ONIONS (FRESH MARKET)  
 KERN CO 1981

BUDGET RECORD NUMBER 219

BY: JOHN GUERARD & LAH  
 MONTHLY SUMMARY OF RECEIPTS AND EXPENSES

CATEGORY	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL RECEIPTS	\$/AC													7000.00
OPERATING EXPENSES														
FERTILIZER	\$/AC											58.00		58.00
FERTILIZER APP	\$/AC											5.00		5.00
ONIONS, SEED	\$/AC												90.00	90.00
HERBICIDE	\$/AC	33.50		33.50	33.50								33.50	134.00
NITROGEN	\$/AC			19.80	20.10	19.80								59.70
PEST TREATMENT	\$/AC					7.50	7.50							15.00
BAND WEEDING	\$/AC					49.00								49.00
IRRIG DIST WATER	\$/AC	4.17	7.29	12.50	16.66	16.66	14.58						3.12	74.99
RENT SPRINKLER	\$/AC	21.43	21.43	21.43	21.43	21.43	21.43						21.43	150.01
CUSTOM HARVEST	\$/AC							2550.00						2550.00
MACHINE LABOR COST	\$/AC	1.85	1.85	3.36	3.36	1.85	1.85	1.85	1.85	1.85	1.85	15.13	5.76	42.39
INTEREST ON OPER. CAP.	\$/AC	4.54	2.20	4.67	5.62	1.82	0.57		0.47	0.43	0.38	9.39	13.28	43.36
TRACTOR COST	\$/AC			1.41	1.41							19.53	4.57	26.92
EQUIPMENT COST	\$/AC	1.84	1.84	2.17	2.17	1.84	1.84	1.84	1.84	1.84	1.84	5.17	6.16	30.40
IRRIGATION COST	\$/AC	2.04	3.57	6.13	8.17	8.17	7.15						1.53	36.76
IRRIG LABOR COST	\$/AC	2.16	3.23	4.31	5.39	5.39	5.39						1.08	26.95
TOTAL EXPENSES	\$/AC	71.52	41.42	109.27	174.31	84.47	52.81	2553.69	4.16	4.12	4.07	112.21	180.44	3392.48

MONTHLY IRRIGATION AND LABOR REQUIREMENTS

	HR/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
MACHINE LABOR	HR/AC	0.33	0.33	0.59	0.59	0.33	0.33	0.33	0.33	0.33	0.33	2.68	1.02	7.50
IRRIGATION LABOR	HR/AC	0.44	0.66	0.88	1.10	1.10	1.10	1.10					0.22	5.50
IRRIG. WATER APPLIED	ACIN	2.00	3.50	6.00	8.00	8.00	7.00						1.50	36.00

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 70HP	4	70.0	17400.	12.	1000.	1.01	1.41	0.36	2.78	2.98	0.45	1.93	5.36	0.925
TRACTOR 120 HP	7	120.0	36000.	12.	1000.	0.88	1.24	0.32	2.44	2.17	0.33	1.70	4.20	0.393
TRAWLER 80HP	11	80.0	66000.	17.	900.	6.96	11.56	3.19	21.71	8.31	1.25	7.80	17.36	1.933
PICKUP 1/2 T	14	0.5	9000.	3.	1350.	4.25	2.16	0.49	6.90	15.71	2.36	4.02	22.09	3.273
BOOSTER PUMP 60H	21	2.6	0.	25.	3200.	0.00	0.00	0.00	0.00	35.00	0.52	1.24	36.76	13.846
CHISEL	42	10.0	3600.	10.	270.	0.71	0.71	0.19	1.62	0.00	0.03	1.30	1.33	0.647
MULCHER, 4 ROW	49	14.0	4080.	15.	125.	0.34	0.43	0.13	0.90	0.00	0.01	0.41	0.42	0.172
CULTIVATOR 4 ROW	52	14.0	2640.	13.	190.	0.41	0.48	0.14	1.03	0.00	0.01	0.65	0.66	0.441
DISK OFFSET	58	10.0	3360.	12.	215.	0.70	0.78	0.22	1.70	0.00	0.02	1.22	1.24	0.625
LISTER 4 ROW	82	14.0	1440.	10.	270.	0.08	0.08	0.02	0.18	0.00	0.00	0.15	0.15	0.185
4 WH PLANE 12X45	85	12.0	8520.	7.	340.	1.29	1.07	0.27	2.63	0.00	0.01	0.59	0.60	0.485
PLANTER 4ROW	108	14.0	10000.	14.	180.	1.41	1.72	0.50	3.64	0.00	0.08	3.82	3.90	0.400
HANDROVE SPRINK*	130	2.6	0.	10.	5600.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.846

MACHINERY & EQUIPMENT 2026.  
 INVESTMENT & COSTS PER ACRE 18.06 21.64 5.83 45.53 64.18 5.06 24.84 94.08  
 TOTAL INVESTMENT 162040.

YIELD OF 25 TONS PER ACRE (1000 50# SACKS)  
 BASED ON 80 ACRES OF ONIONS ON A TOTAL FARM OF 700 ACRES  
 PLANTED IN DEC-HARVESTED IN JULY  
 DATE PRINTED: 09/28/81  
 SPRINKLER IRRIGATED 09/28/81

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 219  
 SAMPLE COSTS TO PRODUCE DRY ONIONS (FRESH MARKET)  
 KERN CO 1981  
 BY: JOHN GUERARD & LAH

FUEL USED IN GALLONS PER HOUR

TRACTOR 70HP	3.360	
TRACTOR 120 HP	5.760	
CRAWLER 80HP	4.480	
PICKUP 1/2 T	4.000	
BOOSTER PUMP60H	51.200	(KWHRS)

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
PICKUP 1/2 T	0.073	
CHISEL	1.594	CRAWLER 80HP
DISK OFFSET	1.540	CRAWLER 80HP
4 WH PLANE 12X45	1.195	CRAWLER 80HP
LISTER 4 ROW	1.172	TRACTOR 120 HP
MULCHER, 4 ROW	1.092	TRACTOR 120 HP
PLANTER 4ROW	1.478	TRACTOR 70HP
CULTIVATOR 4 ROW	0.816	TRACTOR 70HP
HANDROVE SPRINK*	708.923 (KWHRS)	BOOSTER PUMP60H

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	FUEL TYPE	
CHISEL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.189	0.000	3.189	DIESEL	
DISK OFFSET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.080	0.000	3.080	DIESEL	
4 WH PLANE 12X45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.390	0.000	2.390	DIESEL	
LISTER 4 ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.172	0.000	1.172	DIESEL	
MULCHER, 4 ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.092	1.092	DIESEL	
PLANTER 4ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.478	1.478	DIESEL	
CULTIVATOR 4 ROW	0.000	0.000	0.816	0.816	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.631	DIESEL	
PICKUP 1/2 T	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	13.091	GAS	
HANDROVE SPRINK*	39.385	48.923	118.154	157.538	157.538	137.846	0.000	0.000	0.000	0.000	0.000	0.000	29.538	708.923	KWH
TOTALS	40.476	70.014	120.060	159.445	158.629	138.937	1.091	1.091	1.091	1.091	10.922	33.199	27.123		

GALLONS FUEL BY TYPE

13.09 GAS  
 0.00 LP  
 14.03 DIESEL  
 0.00 N. GAS  
 708.92 KWHRS

YIELD OF 25 TONS PER ACRE (1000 50# SACKS)

BASED ON 80 ACRES OF ONIONS ON A TOTAL FARM OF 700 ACRES

PLANTED IN DEC-HARVESTED IN JULY

DATE PRINTED: 09/28/81

SPRINKLER IRRIGATION UPDATED 09/28/81

FUEL TYPES

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

**MACHINERY OPERATIONS SUMMARY**  
**SAMPLE COSTS TO PRODUCE DRY ONIONS (FRESH MARKET)**  
**KERN CO**

**BUDGET RECORD NUMBER 219**

**1981**

**BY: JOHN GUERARD & LAH**

OPERATION	ITEM NO.	DATE	TIMES OVER	LABOR HOUR S	MACHINE HOURS	FUEL, OIL, LUB., REP. PER ACRE	FIXED COSTS PER ACRE
PICKUP 1/2 T		14 AUG	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 SEPT	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 OCT	15.00	0.327	0.273	1.84	0.58
CHISEL	11,	42 NOV	2.00	0.783	0.647	7.72	9.61
DISK OFFSET	11,	58 NOV	2.00	0.756	0.625	7.42	9.42
4 WH PLANE 12X45	11,	85 NOV	2.00	0.587	0.485	5.39	8.63
LISTER 4 ROW	7,	82 NOV	1.00	0.224	0.185	2.33	1.45
PICKUP 1/2 T		14 NOV	15.00	0.327	0.273	1.84	0.58
BULCHER, 4 ROW	7,	49 DEC	1.00	0.208	0.172	2.45	2.07
PLANTER 4ROW	4,	108 DEC	1.00	0.484	0.400	6.45	4.96
PICKUP 1/2 T		14 DEC	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 JAN	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 FEB	15.00	0.327	0.273	1.84	0.58
CULTIVATOR 4 ROW	4,	52 MAR	1.00	0.267	0.221	1.74	1.25
PICKUP 1/2 T		14 MAR	15.00	0.327	0.273	1.84	0.58
CULTIVATOR 4 ROW	4,	52 APR	1.00	0.267	0.221	1.74	1.25
PICKUP 1/2 T		14 APR	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 MAY	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 JUNE	15.00	0.327	0.273	1.84	0.58
PICKUP 1/2 T		14 JULY	15.00	0.327	0.273	1.84	0.58

**TOTALS** 7.504 6.228 57.32 45.53

YIELD OF 25 TONS PER ACRE (1000 50# SACKS)

BASED ON 80 ACRES OF ONIONS ON A TOTAL FARM OF 700 ACRES

PLANTED IN DEC-HARVESTED IN JULY

SPRINKLER IRRIGATED UPDATED 09/28/81

DATE PRINTED: 09/28/81

STORED DATA PAGE (NO CALCULATIONS) FOR ONIONS

BUDGET RECORD NUMBER 219

SAMPLE COSTS TO PRODUCE DRY ONIONS (FRESH MARKET)													COSTS AND RETURNS WILL BE DIVIDED BY 1000.0 SACK TO OBTAIN PER SACK COSTS														
KERN CO 1981																											
BY: JOHN GUERARD & LAH																											
LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18									
PRODUCTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	PRICE	SHARE RENT	UNIT CODE	ITEM CODE	TYPE	XXXX									
1 ONIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.000	0.000	1.	84.	2.	0.									
OPERATING INPUTS																											
	RATE/UNIT												PRICE														
6 FERTILIZER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	400.00	0.00	0.145	0.000	12.	201.	3.	0.									
7 FERTILIZER APP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	5.000	0.000	7.	356.	3.	0.									
8 ONIONS, SEED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	30.000	0.000	12.	184.	3.	0.									
9 HERBICIDE	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	33.500	0.000	34.	250.	3.	0.									
10 NITROGEN	0.00	0.00	64.00	67.00	64.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.300	0.000	12.	211.	3.	0.									
11 PEST TREATMENT	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.500	0.000	34.	249.	3.	0.									
12 HAND WEEDING	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.900	0.000	8.	335.	3.	0.									
13 IRRIG DIST WATER	2.00	3.50	6.00	8.00	8.00	7.00	0.00	0.00	0.00	0.00	0.00	1.50	2.083	0.000	11.	323.	3.	0.									
14 RENT SPRINKLER	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	21.430	0.000	40.	321.	3.	0.									
15 CUSTON HARVEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.550	0.000	1.	304.	3.	9.									
MACHINERY REQUIREMENTS													IMPLEMENTS = TINES OVER, TRUCKS = # MILES/ACRE, TRACTORS = HRS/ACRE					A CREW POWER MACH TYPE HARV									
														LABOR UNIT CODE													
26 CHISEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.000	0.000	11.	42.	4.	0.									
27 DISK OFFSET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.000	0.000	11.	58.	4.	0.									
28 4 WH PLANE 12X45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.000	0.000	11.	85.	4.	0.									
29 LISTER 4 ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.000	0.000	7.	82.	4.	0.									
30 MULCHER, 4 ROW	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	7.	49.	4.	0.									
31 PLANTER 4ROW	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	4.	108.	4.	0.									
32 CULTIVATOR 4 ROW	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	4.	52.	4.	0.									
PICKUP 1/2 T	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	0.000	0.000	0.	14.	4.	0.									
49 ACIN IRRIG WATER	2.00	3.50	6.00	8.00	8.00	7.00	0.00	0.00	0.00	0.00	0.00	1.50	1.00	0.00	21.	130.	150.										
50 NO. TINES IRRIG	2.00	3.00	4.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	1.00															
EQUIPMENT REQUIREMENTS													NUMBER UNITS					PROPORT OF COST									
NONE STORED WITH BUDGET																											
COLUMNS --->	2	3	4	5	6	7	8																				
LAND REQUIREMENTS	CHARGE METHOD		NUMBER OF ACRES	VALUE OR COST/ACRE	TAXES PER ACRE	PERENNIAL CROPS YRS LIFE	COST/ACRE																				
71	2.		80.00	200.00	0.00	0.0	0.00																				
ENTERPRISE 2-84 REGION/COUNTY 15 UNASSIGNED 00000 MACH COMP 3													IRIG SYST 4 UNASSIGNED 0 EQUIP SET 1					HARVEST MONTH 7									
YIELD OF 25 TONS PER ACRE (1000 50N SACKS)																											
BASED ON 80 ACRES OF ONIONS ON A TOTAL FARM OF 700 ACRES																		MACHINERY COMPLEMENT 3									
PLANTED IN DEC-HARVESTED IN JULY																		EQUIPMENT COMPLEMENT 1									
GENERAL NAME CHANGE-->335 HAND WEEDING													LINE CHANGE					LINE CHANGE									
MACHNRY NAME CHANGE--> 21 BOOSTER PUMP60H													11 CRAWLER 80HP					4 TRACTOR 70HP					49 MULCHER, 4 ROW				
MACH COMP CHGS-->52. 2.													49. 2.					11. 2.					11.16.				
*** 3.10000.000000													***13.10000.000000					*** 2.					2.600000				
***13. 0.000000													82. 2.					*** 2.					2.600000				
PARAMETER CHGS--> 6.													10.					11.					12.				
28. 0.080000													5.650000					4.900000					18. 0.22000026.				

Additional Notes and Assumptions for Onion Production  
in Kern County, 1981.

This study is based on 80 acres of onions on a total farm of 700 acres. The yield is assumed to be 1,000 (50 lb.) sacks-or 25 tons of dry, fresh market onions per acre. This is assumed to be a cash rent operation at a cost of \$200 per acre. Row spacings are 40", implying 14 foot, 4 row implements.

1. Land Preparation. Consisting of chiseling, discing and finish leveling twice with these implements pulled by the crawler tractor; listing and shaping using the lister pulled by the 120 HP WD tractor once in November; mulching in December using the mulcher pulled by the 120 HP WD tractor. All of these operations are performed using owned equipment.
2. Fertilization. Performed two different times-once as pre-plant of 400# 11-48-0 in November, applied on a custom ground application basis; again 3x March, April and May a total of 200# N, applied in the irrigation water with nurse tank supplied by the chemical company.
3. Planting. Performed in December using the planter pulled by the 70 HP WD tractor.
4. Herbicide. Performed 4x-December, January, March and April. This is one of the worst crops in regards to weed control. Costs are for both materials and ground applications-breakdowns are not available.
5. Pest Control. To control thrips-performed twice. Costs include both materials and application-breakdowns are not available. Chemicals applied once in April and once in May.
6. Cultivation. Two cultivations are performed-one in March and one in April, using the appropriate owned equipment: cultivator pulled by the 70 HP WD tractor.
7. Hand Weeding. Ten hours of hand weeding is performed in April.
8. Irrigations. Entails 25 applications of a total of 36" of water from December through June. The renter has to pay for the sprinkler rental, the district charges and the pumping costs. The district water costs \$25 per acre foot (or \$2.083 per ac.in.); the sprinkler rental is \$150 per acre. Irrigation labor requires .22 hours per application. Only a 60 HP booster pump is required, assuming 1,200 gpm (2.6 ac.in./hour).
9. Harvest Costs. Includes lifting, topping, putting in stub sacks, cost of sacks, emptying into truck, hauling and grading-performed in July.
10. Pickup. Costs based on 15 miles per acre each month January through December.