

CO-SV-80
COSTS AND RETURNS

FOR

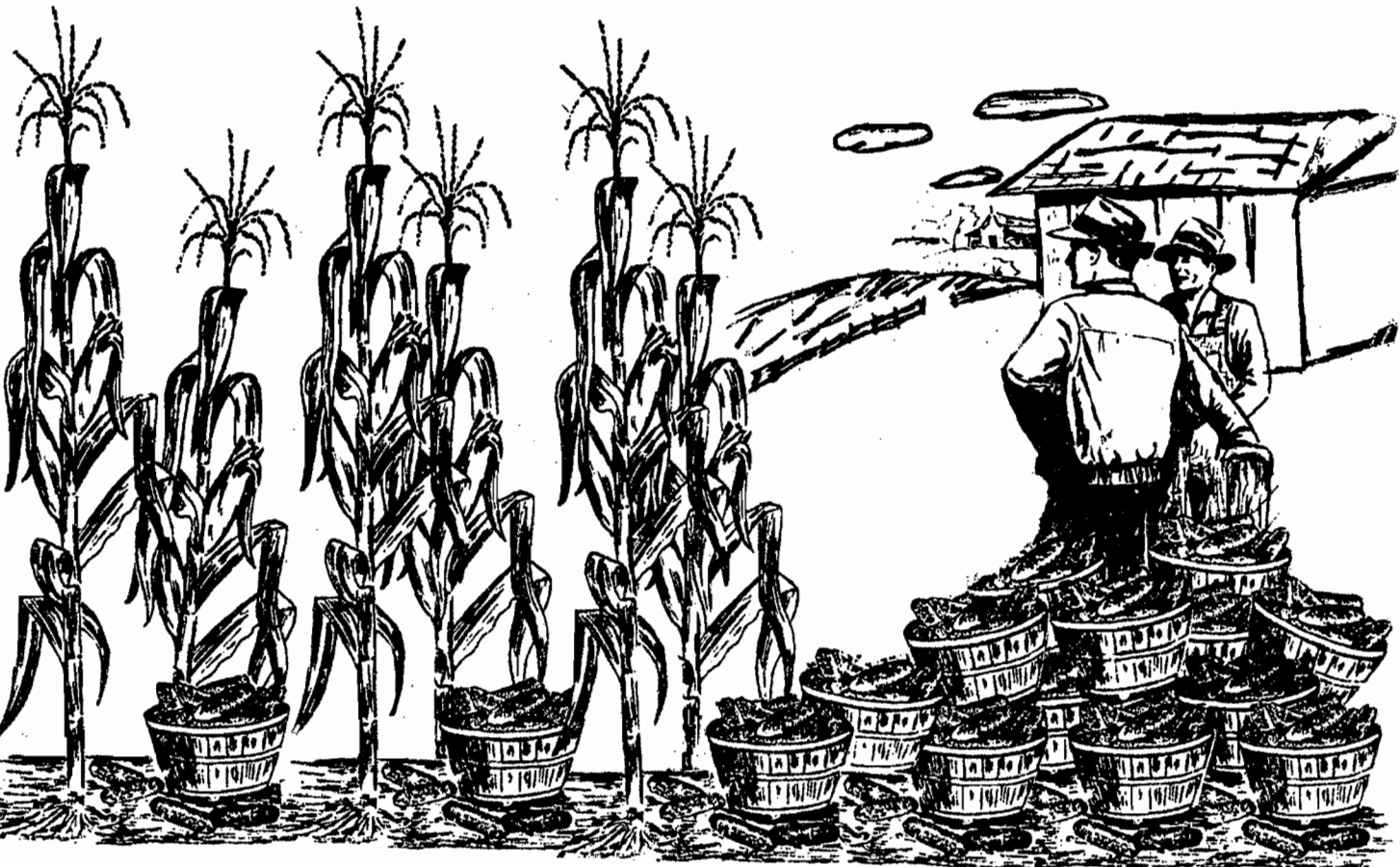
PRODUCING

FIELD CORN

1980 - YOLO COUNTY

PREPARED BY: T. E. KEARNEY, FARM ADVISOR, YOLO COUNTY

LYNN A. HOREL, STAFF RESEARCH ASSOCIATE, U.C.D.



Cooperative Extension Work in Agriculture and Home Economics. U. S. Department of Agriculture, University of California, and Yolo County cooperating.

To simplify information, when trade names of products have been used, no endorsement of named products is intended, nor criticism implied of similar products which are not mentioned.

"The University of California Cooperative Extension in compliance with the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the rehabilitation Act of 1973, does not discriminate on the basis of race, creed, religion, color, national origin, sex, or mental or physical handicap in any of its programs or activities. Inquiries regarding this policy may be directed to: Eugene D. Stevenson, 317 University Hall, University of California, Berkeley, California 94720 (415)642-0903."

February 1981
TEK:cal - 200 copies

March 1981

- 200 copies

APRIL PLANTED IN NATURAL MOISTURE ON BEDS

FOLLOWING CORN, ALFALFA, WHEAT OR SUGAR BEETS

GROUNDWATER @ 125 FEET LIFT

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE
1. GROSS RECEIPTS FROM PRODUCTION:				
FIELD CORN	CWT.	\$ 7.000	90.000	\$ 630.00
TOTAL RECEIPTS:				\$ 630.00
2. VARIABLE COSTS:				
PREHARVEST:				
TAG-A-LONG RENT	ACRE	\$ 1.50	1.00	\$ 1.50
NITROGEN	LBS.	0.20	200.00	40.00
STARTER FERTILIZER	GAL.	1.50	20.00	30.00
FIELD CORN SEED	LBS.	1.25	18.00	22.50
POST EMERGENCE HERBICIDE	LBS.	2.59	0.50	1.30
MITICIDE	QT.	5.00	2.00	10.00
AERIAL SPRAYING	ACRE	4.00	1.00	4.00
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			31.21
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			12.53
IRRIGATION (POWER-LUBE-REPAIRS)	ACIN	1.19	36.00	42.99
MACHINERY LABOR	HOUR	5.69	5.25	29.86
MACHINE CREW LABOR	HOUR	4.79	0.47	2.23
IRRIGATION LABOR	HOUR	4.79	10.50	50.30
INTEREST ON OPERATING CAPITAL	DOLLAR	0.12	98.75	11.49
TOTAL PREHARVEST COSTS:				\$ 289.90
PREHARVEST COST PER CWT.				\$ 3.22
HARVEST:				
CUSTOM DRYING	TON	6.00	2.25	13.50
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			5.26
MACHINERY LABOR	HOUR	5.69	0.33	1.88
TOTAL HARVEST COSTS:				\$ 20.64
HARVEST COST PER CWT.				\$ 0.23
TOTAL VARIABLE COSTS:				\$ 310.54
VARIABLE COST PER CWT.				\$ 3.45
3. INCOME ABOVE VARIABLE COSTS:				
INCOME PER CWT.				\$ 319.46 3.55
4. OVERHEAD:				
PERSONAL PROPERTY TAXES:				\$ 3.17
INSURANCE:				14.30
SHARE RENT: 25%				154.13
MISC. OFFICE & BOOKKEEPING (11.00% OF TOTAL VARIABLE COSTS)				34.16
MANAGEMENT (5.00% OF GROSS RECEIPTS)				31.50
TOTAL OVERHEAD:				\$ 237.26
OVERHEAD COST PER CWT.				\$ 2.64
TOTAL CASH COSTS:				\$ 547.80
TOTAL CASH COST PER CWT.				\$ 6.09
5. INCOME ABOVE ALL CASH COSTS:				
INCOME PER CWT.				\$ 82.20 0.91
6. OWNERSHIP COSTS:				
DEPRECIATION:				
MACHINERY & EQUIPMENT	ACRE			\$ 17.09
TOTAL DEPRECIATION:				\$ 17.09
CAPITAL & INTEREST:				
MACHINERY & EQUIPMENT		0.1200	92.20	\$ 11.06
TOTAL INTEREST CHARGE:				11.06
TOTAL FIXED COSTS:				\$ 28.15
FIXED COST PER CWT.				0.31
7. TOTAL OF ABOVE COSTS:				
TOTAL COST PER CWT.				\$ 575.95 6.40
8. NET RETURNS:				
NET RETURNS PER CWT.				\$ 54.05 0.60

MONTHLY SUMMARY OF RECEIPTS AND EXPENSES

CATEGORY	UNIT	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	TOTAL
TOTAL RECEIPTS	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	630.00	0.00	0.00	630.00
OPERATING EXPENSES:												
TAG-A-LONG RENT	\$/AC	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	1.50
NITROGEN	\$/AC	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00
STARTER FERTILIZER	\$/AC	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00
FIELD CORN SEED	\$/AC	0.00	0.00	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.50
POST EMERG. HERB.	\$/AC	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00	1.30
MITICIDE	\$/AC	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	10.00
CUSTOM DRYING	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50	0.00	0.00	13.50
AERIAL SPRAYING	\$/AC	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	4.00
MACHINE LABOR COST	\$/AC	2.28	4.67	8.75	6.08	0.34	0.06	0.62	4.15	6.73	0.28	33.97
INTEREST ON OPER. CAP.	\$/AC	0.33	0.64	3.39	3.21	1.18	0.50	0.14	0.00	2.04	0.06	11.49
TRACTOR COST	\$/AC	2.18	4.07	5.84	5.35	0.41	0.00	0.41	3.24	9.70	0.00	31.21
EQUIPMENT COST	\$/AC	0.38	2.29	2.92	1.57	0.09	0.06	0.39	7.60	2.19	0.30	17.79
IRRIGATION COST	\$/AC	0.00	0.00	0.00	13.14	11.94	11.94	5.97	0.00	0.00	0.00	42.99
IRRIGATION LABOR COST	\$/AC	0.00	0.00	0.00	14.37	14.37	14.37	7.19	0.00	0.00	0.00	50.30
TOTAL EXPENSES:	\$/AC	5.18	11.68	73.40	86.51	42.34	26.94	14.71	28.49	20.66	0.63	310.54

MONTHLY IRRIGATION AND LABOR REQUIREMENTS

MACHINE LABOR	HR/AC	0.40	0.82	1.15	1.07	0.06	0.01	0.11	0.73	1.18	0.05	5.58
MACHINE CREW LABOR	HR/AC	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
IRRIGATION LABOR	HR/AC	0.00	0.00	0.00	3.00	3.00	3.00	1.50	0.00	0.00	0.00	10.50
IRRIG. WATER APPLIED	ACIN	0.00	0.00	0.00	11.00	10.00	10.00	5.00	0.00	0.00	0.00	36.00

MACHINERY FIXED AND VARIABLE COSTS PER ACRE

MACHINE	SIZE	PURCHASE PRICE	ANN. HOURS USED	FIXED COST PER ACRE			VARIABLE COST PER ACRE				HOURS PER ACRE	
				DEPR.	INTER.	TAX & INS.	TOTAL	FUEL	LUBE	REPRS		TOTAL
TRACTOR 50 HP	50.0	11,400	3,650	0.20	0.12	0.08	0.40	1.48	0.22	0.54	2.24	0.41
TRACTOR 75 HP	75.0	17,400	3,650	1.85	1.08	0.73	3.67	8.57	1.28	4.94	14.79	2.48
CRAWLER 85 HP	85.0	66,000	3,250	3.38	2.66	1.83	7.87	6.88	1.03	6.26	14.18	1.51
PICKUP 1/2 TON	0.5	2,000	2,400	0.34	0.11	0.08	0.53	1.65	0.25	0.45	2.35	0.34
IRR. PUMP 125 HP	3.0	0	2,133	0.00	0.00	0.00	0.00	38.51	0.58	1.79	40.88	18.00
COMB. 6 ROW CORNHED	16.0	69,600	325	6.61	4.69	3.35	14.65	1.58	0.24	3.44	5.26	0.28
SUBSOILER	10.0	6,000	1,090	0.36	0.12	0.08	0.57	0.00	0.02	0.77	0.78	0.25
CULTIVATOR 6 ROW	15.0	3,960	500	0.44	0.26	0.19	0.89	0.00	0.02	0.78	0.80	0.41
SADDLE TANKS	15.0	3,480	650	0.15	0.07	0.05	0.28	0.00	0.01	0.47	0.48	0.17
STUBBLE DISC	10.0	11,400	1,000	0.69	0.30	0.21	1.21	0.00	0.04	2.16	2.21	0.31
ROLLING CULT.	7.0	4,560	650	0.69	0.36	0.25	1.30	0.00	0.04	1.83	1.87	0.62
4 WH. PLANE 12x45	12.0	8,520	1,200	0.91	0.30	0.21	1.42	0.00	0.01	0.59	0.60	0.49
FURROWER 6 SH.	9.8	1,800	585	0.28	0.16	0.12	0.55	0.00	0.02	0.75	0.77	0.66
TOW SPRAYER	15.0	2,040	650	0.19	0.10	0.07	0.35	0.00	0.01	0.31	0.32	0.37
ME PLOW 4-16	6.7	4,200	455	0.22	0.14	0.10	0.47	0.00	0.01	0.50	0.51	0.20
PLANTER 6 ROW	15.0	4,140	485	0.39	0.25	0.18	0.83	0.00	0.03	1.61	1.64	0.39
FURROW IRRIG SYS	2.0	0	5,000	0.00	0.00	0.00	0.00	0.00	0.04	2.07	2.11	18.00
DITCHER	25.0	2,800	180	0.12	0.13	0.10	0.35	0.00	0.00	0.09	0.10	0.12
IMPLMT CARRIER	5.0	4,200	400	0.26	0.20	0.14	0.60	0.00	0.00	0.10	0.10	0.24

MACHINERY & EQUIPMENT INVESTMENT & COSTS PER ACRE \$ 480 17.09 11.06 7.78 35.94 58.67 3.84 29.48 91.99

TOTAL INVESTMENT \$ 230,580

MACHINERY OPERATIONS SUMMARY

OPERATION	DATE	TIMES OVER	LABOR HOURS	MACHINE HOURS	FUEL, OIL, LUB., REP. PER ACRE	FIXED COSTS PER ACRE
MB PLOW 4-16	OCT	0.50	0.25	0.20	2.60	1.63
SUBSOILER	OCT	0.50	0.30	0.25	3.37	2.01
4 WHEEL PLANE 12x45	OCT	2.00	0.59	0.49	5.62	4.21
IMPLEMENT CARRIER	OCT	1.00	0.05	0.04	0.32	0.17
IMPLEMENT CARRIER	NOV	1.00	0.05	0.04	0.32	0.17
FURROWER 6 SHOVEL	FEB	1.00	0.40	0.33	2.56	0.82
PICKUP ½ TON	MAR	1.00	0.02	0.02	0.12	0.03
IMPLEMENT CARRIER	MAR	1.00	0.05	0.04	0.32	0.17
ROLLING CULTIVATOR	MAR	2.00	0.75	0.62	5.94	2.31
PLANTER 6 ROW	APR	1.00	0.00	0.39	4.17	1.45
FURROWER 6 SHOVEL	APR	1.00	0.40	0.33	2.56	0.82
PICKUP ½ TON	APR	1.00	0.02	0.02	0.12	0.03
IMPLEMENT CARRIER	APR	1.00	0.50	0.04	0.32	0.17
SADDLE TANKS	APR	1.00	0.21	0.17	1.61	0.56
CULTIVATOR 6 ROW	MAY	2.00	0.50	0.41	3.50	1.56
DITCHER	MAY	1.00	0.05	0.04	0.45	0.35
TOW SPRAYER	MAY	1.00	0.45	0.37	2.55	0.75
PICKUP ½ TON	MAY	1.00	0.02	0.02	0.12	0.03
IMPLEMENT CARRIER	MAY	1.00	0.05	0.04	0.32	0.17
DITCHER	JUN	1.00	0.05	0.04	0.45	0.35
PICKUP ½ TON	JUN	0.50	0.01	0.01	0.06	0.01
PICKUP ½ TON	JUL	0.50	0.01	0.01	0.06	0.01
DITCHER	AUG	1.00	0.05	0.04	0.45	0.35
PICKUP ½ TON	AUG	0.50	0.01	0.01	0.06	0.01
IMPLEMENT CARRIER	AUG	1.00	0.05	0.04	0.32	0.17
PICKUP ½ TON	SEP	1.00	0.02	0.02	0.12	0.03
COMB. 6 ROW CORNHEADER	SEP	1.00	0.33	0.28	5.26	14.65
STUBBLE DISC	SEP	1.00	0.38	0.31	5.44	3.00
TOTALS			5.116	4.616	49.17	35.97

FUEL USED IN GALLONS PER HOUR

TRACTOR 50 HP	3.00
TRACTOR 75 HP	3.60
CRAWLER 85 HP	4.76
PICKUP ½ TON	4.00
IRRIGATION PUMP 125 HP	32.82 (KWHRS)
COMBINE 6 ROW CORNHEADER	6.00

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
PICKUP ½ TON	0.07	
COMBINE 6 ROW CORNHEADER	1.65	
MB PLOW 4-16	2.12	CRAWLER 85 HP
SUBSOILER	2.62	CRAWLER 85 HP
4 WHEEL PLANE 12x45	1.27	CRAWLER 85 HP
PLANTER 6 ROW	1.52	TRACTOR 75 HP
CULTIVATOR 6 ROW	0.82	TRACTOR 75 HP
FURROWER 6 SHOVEL	1.31	TRACTOR 75 HP
DITCHER	0.21	CRAWLER 85 HP
TOW SPRAYER	1.23	TRACTOR 50 HP
STUBBLE DISC	1.64	CRAWLER 85 HP
IMPLEMENT CARRIER	0.18	PICKUP ½ TON
SADDLE TANKS	0.68	TRACTOR 75 HP
ROLLING CULTIVATOR	1.23	TRACTOR 75 HP
FURROW IRRIGATION SYSTEM	590.77 (KWHRS)	IRRIGATION PUMP 125 HP

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

MACHINE	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	TOTAL	FUEL TYPE
MB PLOW 4-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	1.06	DIESEL
SUBSOILER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	1.31	DIESEL
4-WHEEL PLANE 12x45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	0.00	2.54	DIESEL
PLANTER 6 ROW	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	DIESEL
CULTIVATOR 6 ROW	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00	1.63	DIESEL
FURROWER 6 SHOVEL	1.31	0.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.62	DIESEL
DITCHER	0.00	0.00	0.00	0.21	0.21	0.00	0.21	0.00	0.00	0.00	0.63	DIESEL
TOW SPRAYER	0.00	0.00	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	1.23	GAS
PICKUP ½ TON	0.00	0.07	0.07	0.07	0.04	0.04	0.04	0.07	0.00	0.00	0.40	GAS
COMB 6 ROW CORNH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.00	0.00	1.65	DIESEL
STUBBLE DISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	0.00	0.00	1.64	DIESEL
IMPLEMENT CARRIER	0.00	0.18	0.18	0.18	0.00	0.00	0.18	0.00	0.18	0.18	1.08	GAS
SADDLE TANKS	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	DIESEL
ROLLING CULTIVATOR	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	DIESEL
FURROW IRRIG. SYS.	0.00	0.00	0.00	180.51	164.10	164.10	82.05	0.00	0.00	0.00	590.76	KWH
TOTALS	1.31	2.71	3.76	183.83	164.35	164.14	82.48	3.36	5.09	0.18	20.45	

GALLONS FUEL BY TYPE

GAS = 2.71
 L.P. = 0.00
 DIESEL = 17.74
 NATURAL GAS = 0.00
 KW HOURS = 590.77

FUEL TYPES

1 = GAS
 2 = L.P.
 3 = DIESEL
 4 = NATURAL GAS
 5 = ELECTRICITY

INCOME ABOVE VARIABLE COSTS

WHEN THE PRICE OF FIELD CORN ---
AND THE QUANTITY OF FIELD CORN ---

RANGES FROM --- 6.00 TO 8.00
RANGES FROM --- 70.00 TO 110.00

PRICE OF FIELD CORN

QUANTITY OF FIELD CORN	6.00	6.50	7.00	7.50	8.00
70.00	109.46	144.46	179.46	214.46	249.46
80.00	169.46	209.46	249.46	289.46	329.46
90.00	229.46	274.46	319.46	364.46	409.46
100.00	289.46	339.46	389.46	439.46	489.46
110.00	349.46	404.46	459.46	514.46	569.46

INCOME ABOVE ALL CASH COSTS

WHEN THE PRICE OF FIELD CORN ---
AND THE QUANTITY OF FIELD CORN ---

RANGES FROM --- 6.00 TO 8.00
RANGES FROM --- 70.00 TO 110.00

PRICE OF FIELD CORN

QUANTITY OF FIELD CORN	6.00	6.50	7.00	7.50	8.00
70.00	-127.80	-92.80	-57.80	-22.80	12.20
80.00	-67.80	-27.80	12.20	52.20	92.20
90.00	-7.80	37.20	82.20	127.20	172.20
100.00	52.20	102.20	152.20	202.20	252.20
110.00	112.20	167.20	222.20	277.20	332.20

INCOME ABOVE ALL COSTS

WHEN THE PRICE OF FIELD CORN ---
AND THE QUANTITY OF FIELD CORN ---

RANGES FROM --- 6.00 TO 8.00
RANGES FROM --- 70.00 TO 110.00

PRICE OF FIELD CORN

QUANTITY OF FIELD CORN	6.00	6.50	7.00	7.50	8.00
70.00	-155.95	-120.95	-85.95	-50.95	-15.95
80.00	-95.95	-55.95	-15.95	24.05	64.05
90.00	-35.95	9.05	54.05	99.05	144.05
100.00	24.05	74.05	124.05	174.05	224.05
110.00	84.05	139.05	194.05	249.05	304.05