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ASPARAGUS PRODUCTION
COSTS IN
SAN JOAQUIN COUNTY

PEAT SOIL

7-FOOT BEDS

University of California
Agricultural Extension Service
San Joaquin County

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Costs of Production of Asparagus in San Joaquin Co.

Asparagus

GENERAL REMARKS

This estimate of production costs of asparagus was prepared from information supplied by a group of representative asparagus growers in San Joaquin County. These growers felt the need of preparing a cost estimate as a guide for growers in making management decisions in relation to their asparagus operations.

In the preparation of these figures, equipment was figured on a new cost basis. Harvest equipment was depreciated over the harvest life of the bed. Some growers who purchase used equipment, or who are able to use harvest equipment on successive plantings, will have a lower cost on these items. Also, farm operators usually perform some of the labor items which are charged in these data.

Operations vary widely among asparagus growers. In this study we attempted to include operations that most growers practice. Individual growers should examine these figures and make changes where their individual cost situations differ to make a more accurate estimate of their own operation.

The length of life of an asparagus bed is quite important in a cost analysis such as this and has considerable influence on the total cost of production. In this study of a 7 ft. bed on peat soil, a 10 year length of life was used. A tabulation made on the average age of beds (6 to 8-foot rows) at time of plowing out from the 1958 and 1959 Asparagus Surveys showed an average of 12 years in peat soil and 15 years in sedimentary soil. A second tabulation made from the 1962 and 1963 Asparagus Surveys showed an average life of 10 years for peat soil and 12 years for sediment soil. Production of asparagus beds falls off rapidly with increased age.

In face of the impending labor situation, the economical life of an asparagus bed may be quite different than it has been in the past. Figures in this study should be adjusted to fit the changing situation.

The authors would like to acknowledge the assistance of the California Asparagus Growers Association Board of Directors in the preparation of this report.

COSTS OF ESTABLISHING ASPARAGUS ON PEAT SOIL - FIRST YEAR

7-FT. BEDS, 7-INCH ROOT SPACING - SAN JOAQUIN COUNTY

Based on 300-acre operation, a 10 year life of bed with 8 years of cutting. See notes on page 6 for explanation of various costs.

	Man labor		Cash costs per acre		Total per acre
	per acre	Equip-	Materials and	other costs	
	Hours	Cost	ment		
PRE-HARVEST CASH COSTS					
Ditch cleaning				Contract	\$4.00
Spread lime				Contract 10 tons @3.00	30.00
Plow	.7	1.12	2.04		
Flood	1.0	1.30			
Disc 3 X	.9	1.44	1.80	Rent of disc	1.50
Land plane 2 X	1.0	1.60	2.00	Rent of plane	1.00
Mark and furrow	.4	.64	1.00		
Fertilize				Contract-applied	32.00
Plant				Contract (2)	132.00
Cover plants	.2	.32	.40		
Pack row	.1	.16	.10		
Weed control				Contract (3)	14.75
Cultivate and cover weeds 8 X	2.8	4.48	4.20		
Mow ditch weeds	.2	.32	.25		
Boe 3 X				Contract	40.00
Irrigation	1.0	1.30			
Chop fern	.3	.48	.48		
Disc	.2	.32	.52		
Flow-out charge				Contract (4)	1.18
Pre-harvest Costs	8.80	13.48	12.79		256.43
Cash Overhead (office, accounting, auto, insurance, etc.)					14.14
Management					5.00
TOTAL CASH COSTS					\$301.84
	<u>Investment per acre</u>	<u>Depreciation</u>	<u>Interest (6%)</u>		
Equipment	104.17	10.42	3.13		
Total	104.17	10.42	3.13		
Total Depreciation					10.42
Total Interest on Investment					3.13
TOTAL COST OF PRODUCTION PER ACRE					\$315.39

COSTS OF ESTABLISHING ASPARAGUS ON PEAT SOIL, - SECOND YEAR

7-FT. BEDS, 7-INCH ROOT SPACING - SAN JOAQUIN COUNTY

Based on 300-acre operation
a 10-year life of bed with 8
years of cutting

	Man labor per acre Hours	Cost	Equip- :	Cash costs per acre Materials and other costs	Total per acre
PRE-HARVEST CASH COSTS					
Ditch cleaning				Contract \$4.00	\$ 4.00
Spring discing 2 X:	.4	.64	1.04		1.68
Summer discing 4 X:	.8	1.28	.96		2.24
Hoe 2 X:				Contract 25.00	25.00
Irrigate	.5	.65			.65
Mow ditch weeds	.2	.32	.25		.57
Chop fern	.3	.48	.48		.96
Disc	.2	.32	.32		.64
Plow-out charge				Contract (4) 1.18	1.18
Pre-Harvest Costs	2.4	3.69	3.05		30.18
Cash overhead (office, accounting, auto, insurance, etc.)					1.85
Management					5.00
TOTAL CASH COSTS					43.77
	<u>Investment per acre</u>	<u>Depreciation</u>	<u>Interest (6%)</u>		
Equipment	104.17	10.42	3.13		
Total	104.17	10.42	3.13		
Total Depreciation					10.42
Total Interest on Investment					3.13
TOTAL COST OF PRODUCTION PER ACRE FIRST YEAR					\$315.39
TOTAL COST OF PRODUCTION PER ACRE FIRST TWO YEARS					\$372.71

ANNUAL COSTS OF A PRODUCING ASPARAGUS BED

7-FT. BEDS, PEAT SOIL, 7-INCH ROOT SPACING, 3RD TO 10TH YEAR

	Man labor	Cash costs per acre			Total
	per acre	Equip-	Materials and	per	
	Hours	Cost	ment	other costs	acre
	:	:	:	:	:
<u>PRE-HARVEST CASH COSTS</u>	:	:	:	:	:
Ditch cleaning	:	:	:	Contract \$ 2.00:	\$ 2.00
Flood	1.0	1.30	:	:	1.30
Disc 2 X	.4	.64	.48	:	1.12
Work centers 4 X	.8	1.28	.96	:	2.24
Split ridge for white	.4	.64	.48	:	1.12
Inter-row plant	:	:	:	Grower's share 2.00:	2.00
Re-ridge 3 X	.6	.96	.72	:	1.68
Fertilize(alt.yrs.)	:	:	:	Cont.-app. 7.00:	7.00
Split ridge for fern:	.4	.64	1.04	:	1.68
Work centers 4 X	.8	1.28	.96	:	2.24
Irrigate	.3	.48	:	:	.48
Chop fern	.3	.48	.48	:	.96
Disc	.2	.32	.52	:	.84
Plow-out charge	:	:	:	Contract : (4) 1.18:	1.18
Pre-Harvest Costs	5.2	8.02	5.64	12.18 :	25.84

ANNUAL COSTS, 3-10 YEAR (CONT'D)

	Man labor per acre hours	Equip- Cost :	Cash costs per acre Equip- Materials and other costs	Total per acre
HARVESTING: (3000 lb. total:	:	:	:	:
yield, 90 days 60-man	:	:	:	:
crew, Nationals.)	:	:	:	:
Market (600 lbs.)	:	:	:	:
Cut, sled, pack, etc.	:	28.60:	20 crates @ 1.43 (7)	28.60
Crates	:	:	20 crates @ .52	10.40
Cannery green (400 lbs.)	:	:	:	:
Cut and sled	:	16.80:	400 lbs. @ 4.10 per C#	16.80
Rack, wash and box	:	1.80:	400 lbs. @ .45 per C#	1.80
Cannery white (2,000 lbs.)	:	:	:	:
Cut and sled	:	84.00:	2000 lbs. @ 4.10 per C#	84.00
Wash, rack and box	:	7.00:	2000 lbs. " .35 " "	7.00
Field hauling	3	4.80:	6.00:	10.80
Sled operation (3 sleds)	9	:	8.10:	8.10
Housing, supervision transportation, etc. of labor (8)	:	:	:	42.70
TOTAL HARVEST COSTS	12	143.00:	14.10	53.10
Total Cash Exc. Taxes & Rent		151.02:	19.74	65.28
Cash overhead, (Office, accounting, auto, insurance, etc.)				11.80
Management (5% of 3000 lbs. x .12)				18.00
Share rent (25% of 3000 lbs. x .12)				90.00
TOTAL CASH COSTS				355.84
	Investment per acre	Depreciation	Interest (6%)	
Cultural equipment	104.17	10.42	3.13	
Harvest equipment	67.34	8.43	2.02	
Labor camp	50.00	6.25	1.50	
Packing house	40.00	2.00	1.20	
Cost of first 2 yrs.	372.71	46.59	11.18	
TOTAL	534.22	73.69	19.03	
Total Depreciation				73.69
Total Interest on Investment				19.03
TOTAL COST OF PRODUCTION PER ACRE				448.56

Cost per lb. @ 3000 lb. yield 14.03
 Cost per lb. @ 2500 lb. yield = 15.73
 Cost per lb. @ 3500 lb. yield = 14.07
 Cost per lb. @ 4000 lb. yield = 13.44

NOTES

- (1) All tractor labor \$1.60 per hour, other \$1.30 per hour, 60 HP tracklayer diesel tractor at \$2.00 per hour, 40 HP tracklayer diesel tractor at \$1.40 per hour, 40 HP diesel wheel tractor at \$1.00 per hour (fuel, repairs and other cash costs. Appropriate tillage equipment charges are added to tractor costs in the study.
- (2) Planting \$30.00 per acre, 12,000 roots (7-inch spacing in row), \$8.50 per thousand which includes cost of delivery and treatment with fungicide.
- (3) Material 3½ lbs. per acre CMU (\$12.25) application \$2.50 per acre.
- (4) Plow-out charge \$20.00 per mile, 1.18 miles per acre of 7-ft. rows or \$23.60 per acre charge. Grower pays 1/2 which is prorated over the 10-year life of bed.
- (5) Miscellaneous costs are computed at 5% of the total cash and labor costs not including rent. This includes miscellaneous repairs, office, interest on operating capital, insurance, etc.
- (6) Share rent figured at 25 per cent of a 3,500 pound yield at 12¢ per lb.
- (7) Harvest labor rates taken from 1964 Dept. of Employment Agri. Wage Survey.
- (8) Housing, supervision, transportation, etc., of labor - (60-man crew).

Camp supervisor \$12.50 per day (90 days) - - - - -	\$ 1,125.00
Subsistence above \$1.75 paid by men 40¢ per day per man	2,160.00
Transportation to field (2 buses at \$30.00 per day - -	2,700.00
Field supervisors (2 @ \$35.00 per day - - - - -	3,150.00
Transportation to town (12 times @ \$30.00) - - - - -	360.00
Recruiting and transportation \$40.00 (per man) - - - -	2,400.00
Blankets and mattresses (\$10.00 per man per year - - -	600.00
Camp lights and fuel (\$1.75 per man per month - - - -	315.00

TOTAL	\$12,810.00
Per acre charge	42.70

- (9) Investment includes -

<u>Cultural equipment</u>	<u>Price</u>	<u>Per cent charge to asparagus operation</u>
1 60-HP diesel tracklayer tractor	\$1,800	10%
1 36-inch disc plot	100	5%
1 40-HP diesel tracklayer tractor	6,000	75%
1 tool bar and attachments	2,000	75%
2 40-HP diesel wheel tractors	10,800	100%
1 roto chopper	950	100%
3 5-foot discs	1,800	100%
1 2-ton truck	3,700	100%
1 mower	500	100%
1 spray rig	1,000	100%
1 pick-up truck	2,600	100%
TOTAL	\$ 31,250	

Harvest facilities

Labor camp and furnishings (60 men)	15,000
Packing shed	12,000
Washer, buttsaw, press	8,000
2 loading platforms	1,500
Water pump	500
Butt grinder	900
40 sleds	2,400
3 sled tractors, 18 HP	6,900
TOTAL	\$47,200

Cultural equipment was given a 10-year life, harvest equipment an 8-year life. (Harvest life of bed). Interest is figured at 6 per cent on 1/2 the original value.