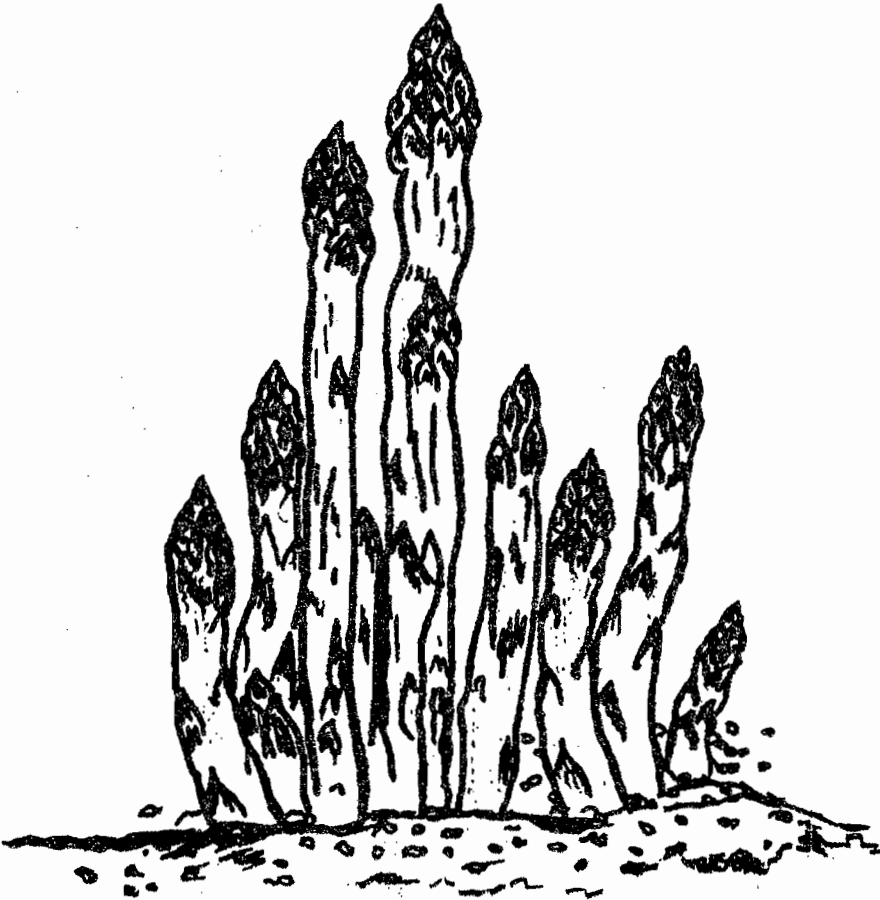


# **ASPARAGUS**

## **Production Costs in San Joaquin County**

**Sedimentary Soil  
6-Foot Beds**



**UNIVERSITY OF CALIFORNIA  
COOPERATIVE EXTENSION**

420 South Wilson Way  
Stockton, California 95205

UC Cooperative Extension

**ASPARAGUS PRODUCTION COSTS IN  
SAN JOAQUIN COUNTY**

Prepared by:  
Robert J. Mullen, U.C. Farm Advisor

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, an attempt was made 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 6-foot bed on sedimentary soil, a 10-year length of life was used. Production of asparagus beds falls off rapidly with increased age after the peak production years. Beds are plowed out after they become uneconomical.

In the face of the present 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 author would like to acknowledge the assistance of Mr. Bill De Paoli, Executive Manager, California Asparagus Growers' Association; Bob Mercer, Merwood Inc.; and those growers who took time from their busy schedules to help compile this report. Many thanks to them, and appreciation also to those industry personnel who provided additional cost information.

November 1980

**COSTS OF ESTABLISHING ASPARAGUS ON SEDIMENTARY SOIL--FIRST YEAR**  
**6-Ft. Beds, 9-inch Root Spacing - San Joaquin County**

Based on a 200-acre operation on a 600-acre farm, a 10-year life of bed with 8 years of cutting.

Operation	Hours per Acre	Cash and Labor Costs per Acre <sup>(1)</sup>				Total
		Labor	Fuel and Repairs	Materials	Cost	
Disc stubble, 2x	.66	\$ 2.90	\$ 5.02			\$ 7.92
Make levees	.50	2.20	3.80			6.00
Flood/drain	1.00	3.90		Water	\$ 5.00	8.90
Remove levees	.33	1.45	2.51			3.96
Plow	.66	2.90	5.02			7.92
Disc	.33	1.45	2.51			3.96
Rip, 2x	1.00	4.40	7.60			12.00
Landplane, 2x	1.00	4.40	7.60	Rent of plane	4.00	16.00
Fumigate				Contract/material & appli. (2)	161.00	161.00
Disc	.33	1.45	2.51			3.96
Lime				Contract/material & appli. (3)	32.00	32.00
Mark, furrow, fertilize				Contract/material & appli. (4)	68.10	68.10
Plant				Contract (5)	310.00	310.00
Irrigate, 3x	5.00	19.50		Water	15.00	34.50
Weed control				Contract (6)	27.50	27.50
Cultivate/cover weeds, 4x	1.20	5.28	5.16			10.44
Spray irrigation ditches	.50	2.20	2.15	Chemicals	4.50	8.85
Hoeing, 1x				Contract	30.00	30.00
Cultivate, 4x	1.33	5.85	5.72			11.57
Ditch cleaning				Contract	9.00	9.00
Miscellaneous <sup>(7)</sup>					61.89	61.89
<b>TOTAL CASH &amp; LABOR COSTS</b>		<b>\$57.88</b>	<b>\$49.60</b>		<b>\$727.99</b>	<b>\$835.47</b>
<u>Investment<sup>(11)</sup></u>	<u>Per Acre</u>	<u>Annual Cost</u>				
		<u>Depreciation</u>	<u>Interest (12%)</u>			
Cultural equipment	\$325.08	\$32.50	\$19.50			\$ 52.00
<b>TOTAL COST PER ACRE</b>						<b>\$887.47</b>

**COSTS OF ESTABLISHING ASPARAGUS ON SEDIMENTARY SOIL--SECOND YEAR**  
**6-Ft. Beds, 9-inch Root Spacing - San Joaquin County**

Based on a 200 acre operation on a 600-acre farm, a 10-year life of bed with 8 years of cutting

Operation	Hours per Acre	Cash and Labor Costs per Acre <sup>(1)</sup>				Total
		Labor	Fuel and Repairs	Materials	Cost	
Winter discing, 2x	.66	\$ 2.90	\$ 5.02			\$ 7.92
Seed control				Contract <sup>(6)</sup>	\$27.50	27.50
Hoing, 1x				Contract	30.00	30.00
Cultivate, 4x	1.33	5.85	5.72			11.57
Irrigate, 3x	5.00	19.50		Water	15.00	34.50
Spray irrigation ditches	.50	2.20	2.15	Chemicals	4.50	8.85
Cultivate & cover weeds, 4x	1.20	5.28	5.16			10.44
Chop fern	.40	1.76	1.72			3.48
Furrow out, 2x	.66	2.90	2.84			5.74
Chisel	.33	1.45	2.51			3.96
Ditch cleaning				Contract	9.00	9.00
Miscellaneous <sup>(7)</sup>					12.24	12.24
<b>TOTAL CASH AND LABOR COST</b>		<b>\$41.84</b>	<b>\$25.12</b>		<b>\$98.24</b>	<b>\$165.20</b>
<b>Annual Cost</b>						
<u>Investment<sup>(11)</sup></u>	<u>Per Acre</u>	<u>Depreciation</u>		<u>Interest<sup>(12%)</sup></u>		
Cultural equipment	\$325.08	\$32.50		\$19.50		\$ 52.00
<b>TOTAL COST PER ACRE</b>						<b>\$217.20</b>
Some growers harvest for a short time during the second year. Normally, income from this asparagus is only sufficient to cover costs of harvesting						
<u>FIRST YEAR COST</u>						\$887.47
Interest on first year cost @ 12%						106.50
<b>TOTAL COST FIRST TWO YEARS</b>						<b>\$1,211.17</b>

**ANNUAL COSTS OF A PRODUCING ASPARAGUS BED  
THIRD TO TENTH YEAR  
6-Ft. Beds, 9-inch Root Spacing - San Joaquin County**

Based on a 200-acre operation on a 600-acre farm, a 10-year life of bed with 8 years of cutting.

Operation	Hours per Acre	Cash and Labor Costs per Acre <sup>(1)</sup>				Total
		Labor	Fuel and Repairs	Materials	Cost	
<b>Cultural</b>						
Disc, 2x	.66	\$ 2.90	\$ 5.02			\$ 7.92
Ridge & roll	.25	1.10	1.90			3.00
Fertilize 200 lbs 15-15-15				Contract/material & appli.	\$39.30	39.30
Bait, 2x				Contract/material & appli.	36.30	36.30
Work centers, 8x	1.60	7.04	6.88			13.92
Weed control				Contract/material & appli.	30.80	30.80
Furrow out, 2x	1.00	4.40	7.60			12.00
Irrigate, 3x	5.00	19.50		Water	15.00	34.50
Cultivate, 2x	.66	2.99	2.84			5.74
Split ridge for fern	.50	2.20	2.15			4.35
Chop fern	.40	1.76	1.72			3.48
<b>TOTAL CULTURAL COSTS</b>		<b>\$41.80</b>	<b>\$28.11</b>		<b>\$121.40</b>	<b>\$191.31</b>
<b>Harvest (90 days, 40-man crew)</b>						
<b>Market (1,500 lbs.)</b>						
Cut, sled, pack, etc.		\$149.50		(46 crates @ \$3.25)		\$149.50
Crates @ \$1.75 <sup>(10)</sup>				46 crates	\$80.50	80.50
<b>Cannery Green (1,500 lbs.)</b>						
Cut and sled		165.00		1,500 lbs @ \$11/100 lbs		165.00
Rack, wash and box		20.25		1,500 lbs @ \$1.35/100 lbs		20.25
Field hauling	3.00	13.20	\$15.00			28.20
Sled operation (3 sleds)	9.00		18.00			18.00
Housing, supervision, camp maint. & repairs, etc. <sup>(9)</sup>					70.00	70.00
<b>TOTAL HARVEST COSTS</b>		<b>\$347.95</b>	<b>\$33.00</b>		<b>\$150.50</b>	<b>\$531.45</b>
<b>TOTAL CULTURAL &amp; HARVEST COSTS</b>		<b>\$389.75</b>	<b>\$61.11</b>		<b>\$271.90</b>	<b>\$722.76</b>
<b>Cash overhead</b>						
Misc., office, bookkeeping, fire & liability ins., int. on operating capital, assoc. dues, etc.				8% of total cultural & harvest cost <sup>(7)</sup>		\$ 57.82
Share rent <sup>(8)</sup>						222.00
<b>TOTAL CASH OVERHEAD</b>						<b>\$279.82</b>
<b>TOTAL CASH COST</b>						<b>\$1,002.58</b>
<b>Annual Cost</b>						
<b>Investment</b>	<b>Per Acre</b>	<b>Depreciation</b>		<b>Interest (12%)</b>		
Cultural equipment <sup>(11)</sup>	\$ 325.08	\$ 32.50		\$ 19.50		
Harvest equipment <sup>(12)</sup>	274.50	27.45		16.47		
Labor camp <sup>(12)</sup>	400.00	20.00		24.00		
Packing shed <sup>(12)</sup>	325.00	16.25		19.50		
Cost first 2 years	1,211.17	121.12		72.67		
<b>Total</b>	<b>\$2,535.75</b>	<b>\$217.32</b>		<b>\$152.14</b>		<b>\$ 369.46</b>
<b>TOTAL COST PER ACRE</b>						<b>\$1,372.04</b>
Cost per lb. @ 3,000-lb. yield						45.7¢
Cost per lb. @ 4,000-lb. yield						34.3¢

NOTES

- (1) All tractor labor--\$4.40 per man hour, other hourly labor--\$3.90 per man hour. (Includes Workmen's Compensation, Social Security, Unemployment Insurance and other benefits based on 20% of cash wage.) Fuel, repairs, and other cash costs per hour are: 80-100 HP track-layer diesel tractor at \$7.60 per hour, 60 HP diesel wheel tractor at \$4.30 per hour.
- (2) Application rate of fumigant--25 gal/acre at \$6.30 per gallon. Application cost at \$13.50 per acre.
- (3) Lime application--3 tons per acre at \$9.00 per ton. Application cost at \$5.00 per acre.
- (4) Fertilizer application--400# 15-15-15 + 5% sulfur at \$288.00 per ton. Application cost, \$10.50.
- (5) Planting--\$70.00 per acre; 10,000 roots, 9-inch spacing in row. Plants, \$24.00 per thousand, which includes cost of delivery and treatment with fungicide.
- (6) Herbicide materials--\$18.50 per acre and application cost at \$9.00 per acre.
- (7) Miscellaneous costs are computed at 8.0% of the total cash and labor costs not including rent. This includes office, bookkeeping, fire and liability insurance, interest on operating capital, association dues (if applicable), etc.
- (8) Share rent figured at 20 percent of a 3,000-pound yield at 37¢ per pound. No rent charged during first two years of establishment.
- (9) Housing, supervision, etc., of labor (40-man crew)

Camp supervisor, \$50.00 per day (90 days)-----	\$ 4,500.00
Camp lights and fuel (\$37.50 per mo. per man)--	4,500.00
Mattresses, etc. (\$20.00 per man per yr.)-----	800.00
Camp maintenance (labor and materials)	
@ \$70.00 per man-----	2,800.00
Misc. repairs, field transportation, etc.-----	1,400.00
	\$14,000.00
- Per Acre Charge--
- \$70.00
- (10) Some growers are shifting away from using the traditional wooden crates and are now using some reinforced fiberboard containers that run approximately \$1.41 each. The net weight of product in these containers is still the same whether wood or fiberboard.
- (11) See Cultural Equipment List, page 6.
- (12) See Harvest Equipment List, page 7.

**CULTURAL EQUIPMENT LIST<sup>(11)</sup>**

Items	Original Cost		Years Life	Annual Use (acres)	Non-cash Overhead	
	Total	Per Acre Annual Use			Depreciation	Interest 12%
<b><u>CULTURAL EQUIPMENT</u></b>						
D4 crawler tractor 80-100 HP	\$ 55,200	\$ 92.00	10	600	\$ 9.20	\$ 5.52
W. D. tractor (60 HP-2)	38,600	64.33	10	600	6.43	3.86
Smizer roller (3 section)	5,100	8.50	10	600	.85	.51
Lilliston (3 section)	4,400	7.33	10	600	.73	.44
Cultipacker	1,450	2.42	10	600	.24	.14
Roto chopper	6,800	34.00	10	200	3.40	2.04
Disc (3-5 ft. sections)	6,000	30.00	10	200	3.00	1.80
Truck (1-1/2 ton)	12,500	20.83	10	600	2.08	1.25
Sprayer (300 gallon 10 GPM pump)	2,650	4.42	10	600	.44	.26
Pickup truck (3/4 ton 4x4)	9,800	16.33	10	600	1.63	.98
Plow 3 bottom 16" two-way	6,700	11.17	10	600	1.12	.67
Disc, 18' offset	11,600	19.33	10	600	1.93	1.16
Disc, 6' single border	1,150	5.75	10	200	.58	.35
Tool bar	5,200	8.67	10	600	.87	.52
<b>TOTALS</b>	<b>\$167,150</b>	<b>\$325.08</b>			<b>\$32.50</b>	<b>\$19.50</b>

## HARVEST EQUIPMENT LIST (12)

Items	Original Cost		Years Life	Annual Use (acres)	Non-cash Overhead	
	Total	Per Acre Annual Use			Depre- ciation	Interest 12%
<b><u>HARVEST FACILITIES</u></b>						
Labor camp and furnishings 45 men	\$ 80,000	\$400.00	20	200	\$20.00	\$24.00
Packing shed w/ office & restroom 50 ft. x 140 ft.	65,000	325.00	20	200	16.25	19.50
<b>TOTALS</b>	<b>\$145,000</b>	<b>\$725.00</b>			<b>\$36.25</b>	<b>\$43.50</b>
<b><u>HARVEST EQUIPMENT</u></b>						
Washer, butt saw, and press	\$14,000	\$ 70.00	10	200	\$ 7.00	\$ 4.20
Pump, 5 HP & well 100 ft.	6,000	30.00	10	200	3.00	1.80
Auger & elevator	2,500	12.50	10	200	1.25	.75
Sleds (30) @ \$250 each	7,500	37.50	10	200	3.75	2.25
Sled tractors, sled frames, 25 HP-WD 3 units @ \$8,300 ea.	24,900	124.50	10	200	12.45	7.47
<b>TOTALS</b>	<b>\$54,900</b>	<b>\$274.50</b>			<b>\$27.45</b>	<b>\$16.47</b>