

ASPARAGUS PROJECTED PRODUCTION COSTS 1987-1988

Mechanical operations at custom rates. Hand labor at \$5.50 per hour (\$4.30 plus Social Security, unemployment insurance, transportation, supervision and fringe benefits).

Yield--175 30 lb. crates or 350 15 lb. cartons

OPERATION	CUSTOM RATE	MATERIALS		HAND LABOR		COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATIONS						
Plow	24.25					24.25
Disc 4x	9.00					36.00
Landplane 2x	9.50					19.00
Border, cross check & break borders	15.00					15.00
Flood		Water 1/2 ac/ft	4.50	1	5.50	10.00
Float	7.75					7.75
Fertilize	6.00	300# - 11-52-0	35.25			41.25
List - inject	12.00	80# N	24.00			36.00
Shape beds	14.00					14.00
TOTAL LAND PREPARATION						203.25
GROWING PERIOD						
Transplant		18,000 plants	700.00	36	198.00	898.00
Herbicide	7.00	Herbicide	3.41			10.31
Sprinkler Irrigate						145.00
Fertilize 2x	10.00	200# N	60.00			80.00
Irrigate 8x		3 ac. ft.	27.00	6	33.00	60.00
Hand weed				12	66.00	66.00
Insect control 5x	4.90	Insecticides	33.00			57.50
Lilliston 1x	9.00					9.00
Cultivate 2x	12.00					24.00
TOTAL GROWING PERIOD COSTS (FIRST YEAR)						1349.81
GROWING PERIOD & LAND PREPARATION COSTS (FIRST YEAR)						1553.06
Land Rent (net acres)						225.00
Cash Overhead----		12% of preharvest costs & land rent				213.37
TOTAL FIRST YEAR COSTS						1991.43
ANNUAL COSTS (10 YEAR LIFE)						
Chop or swath fern 1x	18.00					18.00
Lilliston 2x	9.00					18.00
Cultivate 2x	12.00					24.00
Rotovate-shape beds 1x	18.50					18.50
Fertilize 2x	12.00	400# N @ .30	120.00			144.00
Irrigate 15x		6 ac.ft.	54.00	10	55.00	109.00
Hand weed				6	33.00	33.00
Herbicide	7.00	Herbicide	10.48			17.48
Insect control 5x	4.90	Insecticide	22.00			46.50
TOTAL ANNUAL COSTS						428.48
GROWING PERIOD COSTS						
Land Rent						225.00
Overhead		12% land rent and preharvest costs				78.42
Amortization		10% of first year costs(excluding land rent & overhead)				155.31
TOTAL PREHARVEST COSTS						887.20
HARVEST COSTS						
Cut, haul, and pack		350-15# ctns	8.50 per ctn			2975.00
TOTAL ALL COSTS						3862.20

		PROJECTED INCOME ABOVE COSTS				Breakeven \$/carton
		price/15# carton				
		10.00	12.00	14.00	16.00	
Cartons per acre	300	-437	163	763	1363	11.46
	325	-400	250	900	1550	11.23
	350	-362	338	1038	1738	11.03
	375	-325	425	1175	1925	10.87
	400	-287	513	1313	2113	10.72

ASPARAGUS CULTURE

1987-1988

<u>YEAR</u>	<u>ACRES</u>	<u>YIELD/ACRE (15# CARTONS)</u>	<u>VALUE/ACRE</u>
1986	3527	214	\$2728
1985	2523	174	2570
1984	2127	146	2078
1983	2160	188	3268
1982	1892	216	3483

PLANTING: Asparagus may be established by 3 methods, direct seed, transplants, or crowns. Costs are projected using 10 week old transplants as this method is becoming more popular, despite higher costs. Transplants can be planted anytime during the year, but October through March is recommended. The distance between planting bed centers varies from 40 - 60 inches. Forty-eight and 60 inch bed centers normally would have 2 rows per bed. Two rows on a 60 inch bed would have a plant population from 17-20,000 plants per acre.

VARIETIES: The main varieties grown are "UC Hybrid 157", "Brock" selections, and Hybrid "Ida Lea".

SOILS: Well-drained sandy loams and loams are best for asparagus.

IRRIGATION: Timing and method of application are very important during harvest season. Irrigate every other row during cutting to maintain even production. Over 15 irrigations per year will not be unusual. Irrigation interval during the summer is from 10 to 15 days.

FERTILIZERS: From 100 to 200 pounds of phosphate and 200 to 400 pounds of nitrogen are used. All of the phosphate and at least one-third of the nitrogen is applied in winter before the cutting season. The remaining nitrogen is applied during and after the harvest season.

PEST CONTROL: Weeds can become a serious problem in established asparagus. After the fern is chopped and burned and before harvest begins, a preemergence herbicide should be applied. During the harvest period, spot treatments with a herbicide may be necessary. The application of a herbicide after cutting and before fern regrowth is commonly applied. Weeds in direct seeded asparagus are a serious problem.

Worm problems and bean thrips have been traditional pests requiring several insecticide treatments annually. The European asparagus aphid is a serious new pest requiring several additional insecticide treatments. Asparagus rust and Cercospora stem and leafspot may require control in some years especially on new plantings. Consult the University of California farm advisors for recommended list of both herbicides and insecticides.

HARVESTING: The fern is either chopped or windrowed with a swather and burned in late November to early December. Afterward the planting beds are reworked, shaped, fertilized, and irrigated prior to the start of harvest.

Spears are hand cut from mid-January through mid-April. Overcutting will lead to a decline in production and small spears. During the third year of growth, cutting may be continued the full season--about 60 days. Spears are cut at an angle just below the soil surface with an asparagus knife. They are cut every two or three days early in the season, but during warm weather the field will be cut each day. The harvested spears are hauled to sheds for grading, trimming, packing, and cooling. About 30 percent of the harvested spears are shipped in 30 pound pyramid crates and 70 percent shipped in 15 pound cartons.

Harvest begins the second year, but should be limited in time (2-4 weeks) and to the most vigorous plantings.