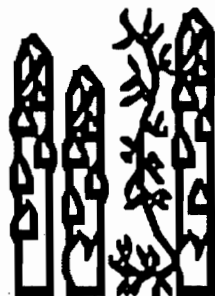


ASPARAGUS

AS-SE-90

PROJECTED

PRODUCTION COSTS



IMPERIAL COUNTY 1989-1990

Asparagus Projected Production Costs 1989-1990

Mechanical operations at custom rates. Hand labor at \$5.75 per hour (\$4.50 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 PREPARATION						
Plow	24.75					24.75
Disc 4x	9.50					38.00
Landplane 2x	10.00					20.00
Border, cross check & break borders	15.00					15.00
Flood		Water 1/2 ac/ft	5.50	1	5.75	11.25
Float	8.25					8.25
Fertilize	6.00	300# - 11-52-0	40.50			46.50
List - inject	12.00	80# N @ .31	24.80			36.80
Shape beds	14.00					14.00
TOTAL LAND PREPARATION						214.55
GROWING PERIOD						
Tranplant		18,000 plants	700.00	36	207.00	907.00
Sprinkler irrigate						145.00
Fertilize 2x	10.50	200# N @ .31	62.00			83.00
Irrigate 8x		3 ac. ft.	33.00	6	34.50	67.50
Hand weed				12	69.00	69.00
Insect control 5x	5.00	Insecticides	33.25			58.25
Lilliston 1x	9.50					9.50
Cultivate 2x	14.00					28.00
TOTAL GROWING PERIOD COSTS (FIRST YEAR)						1367.25
GROWING PERIOD & LAND PREPARATION COSTS (FIRST YEAR)						
Land Rent (net acres)						1581.80
Cash Overhead----		12% of preharvest costs & land rent				219.82
TOTAL FIRST YEAR COSTS						2051.62
ANNUAL COSTS (10 YEAR LIFE)						
Chop or swath fern 1x	18.00					18.00
Lilliston 2X	9.50					19.00
Cultivate 2x	12.00					24.00
Rotovate-shape beds 1x	18.00					18.00
Fertilize 2x	10.50	400# N @ .31	124.00			145.00
Irrigate 15x		6 ac.ft.	66.00	10	57.50	123.50
Hand weed				6	34.50	34.50
Herbicide 1x	8.00	Herbicide	10.95			18.95
Insect control 5x	5.00	Insecticide	33.25			58.25
TOTAL ANNUAL COSTS						459.20
GROWING PERIOD COSTS						
Land Rent						250.00
Overhead		12% land rent and preharvest costs				85.10
Amortization		10% of first year costs(excluding land rent & overhead)				205.16
TOTAL PREHARVEST COSTS						999.47
HARVEST COSTS						
Cut, haul, pack and sell		350-15# ctns	10.00 per ctn			3500.00
TOTAL ALL COSTS						4499.47

PROJECTED INCOME ABOVE COSTS

		price/15# carton				Breakeven \$/carton
		10.50	12.50	14.50	16.50	
Cartons	300	-849	-249	351	951	13.33
	325	-837	-187	463	1113	13.08
per	350	-824	-124	576	1276	12.86
acre	375	-812	-62	688	1438	12.67
	400	-799	1	801	1601	12.50

ASPARAGUS CULTURE
1989-1990

<u>YEAR</u>	<u>ACRES</u>	<u>YIELD/ACRE</u>	<u>(15# CARTONS)</u>	<u>VALUE/ACRE</u>
1988	3935	257		\$3973
1987	3821	236		3357
1986	3527	214		2728
1985	2523	174		2570
1984	2127	146		2078

PLANTING: Asparagus may be established by three 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. There are normally 2 rows per bed for a plant population from 17-20,000 plants per acre (60" bed).

VARIETIES: The main varieties grown are "UC Hybrid 157", "Brock" selections, and Hybrid "Ida Lea". Seed cost is roughly \$200/lb. for all varieties.

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 are not unusual. Irrigation interval during the summer is from 10 to 15 days.

FERTILIZERS: Annually 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.

Western yellow striped armyworm, beet armyworm, 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 miner may periodically need to be treated. Asparagus rust and Cercospora stem and leafspot may require control in some years especially on new plantings. Consult your farm advisors for 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. Harvest begins the second year, but should be limited in time (2-4 weeks) and to the most vigorous plantings. 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.

GUIDELINES TO PRODUCTION COSTS AND PRACTICES
IMPERIAL COUNTY CROPS, CIRCULAR 104
 1989 - 1990

CUSTOM RATE CHARGES

HEAVY TRACTOR WORK

	<u>PRICE/ACRE</u>
Plow	\$ 24.75
Subsoil 2nd Gear	29.25
Disc, Regular	9.50
Disc, Stubble	18.25
Float	8.25
Triplane	8.75
List, Regular	11.50
List, and Rerun 80" Melon Beds	22.00
Reshape 80" Melon Beds	10.00
Landplane	10.00
Chisel	20.75

PLANTING AND CULTIVATING

Plant and Shape Melon Beds	16.75
Precision Plant 42" Beds	14.50
Plant Carrots	13.75
Plant Onions	16.75
Cultivate 4-Row 42" Beds	10.75
Cultivate Melon Beds	14.00
Spike and Furrow Out (2 row)	10.50
Lilliston	9.50
Furrow out alone	8.00
Move N-Side 80" Beds for Irrigation	9.50

INCORPORATING, BORDER AND BED WORK

Power Incorporate herbicides	20.25
Border, Cross checks and Break Borders	15.00
Bust Melon Beds	9.00
Roll Beds	5.00

FERTILIZER APPLICATION

Broadcast Fertilizer	6.00
Inject Fertilizer (Flat)	9.00
Fertilize and Furrow Out 42" Beds	10.50
Fertilize and Furrow Out 80" Beds	10.50

IRRIGATION

Custom Sprinkle	135.00-145.00
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MISCELLANEOUS

Motor Grader/Hour	42.75
Chop Broccoli, Corn Stalks, Etc.	10.00
Water truck/Hour	34.00
Cultipacker	6.00
Ground Spray Pesticides (4 Row)	7.00
Aerial Spray 5 Gal. (Insecticides)	4.50
Aerial Spray 10 Gal. (Fungicides)	5.00