

SAMPLE COSTS FOR CELERY PRODUCTION (Rented Land)  
Watsonville District - 1976

Based on a yield of 1000 crates per acre (60 lb. crates)	Man Labor	60 h.p. Tractor	30 h.p. Tractor	Cost Per Acre
	Hours per acre			
Land Preparation, disk 2 times & chisel	3.0	3.0		\$ 29.64
Land plane, two times	1.5	1.5		14.82
Disk & chisel	1.0	1.0		9.88
Insecticide - soil - disk	1.0	.5	.5	8.34
Preplant fertilizer and list contract				4.50
Bed shape & roll	1.0		1.0	6.80
Plant - 1 man - 4 row planter	.5		.5	3.40
Irrigation - 13 times	30.0			111.00
Side dress - 3 times contract (3.75/Acre)				11.25
Thin	36.0			133.20
Hand hoe	18.0			66.60
Cultivate - 6 times	6.0		6.0	40.80
Apple insecticide - 6 times (3.75/Acre)				22.50
<b>Total Cultural-Labor</b>	<b>98.0</b>	<b>6.0</b>	<b>8.0</b>	<b>462.73</b>
Irrigation, 4.5 acre ft.				26.00
Insecticide & fungicide				118.00
Herbicide				21.00
Manure 8 tons (1/2 cost)				16.00
Fertilizer N.P.K.				207.00
Seed Mini-coat - 2-1/4" approx. - 1" spacing				17.50
<b>Total Material Cost</b>				<b>405.50</b>
<b>Total Cost of Material and Cultural-Labor</b>				<b>868.23</b>
General Expense - 7% of above				60.80
Management				50.00
County taxes, equipment				10.10
Repairs, except tractors & trucks, plus misc.				10.00
Lease (2/3 double cropped)				216.67
<b>Total Cash Overhead Costs</b>				<b>347.57</b>
<b>Total Cash Costs</b>				<b>1,215.80</b>
<b>Investment</b>	<b>Inv./acre</b>	<b>Annual Depreciation</b>	<b>Interest on 1/2 Cost</b>	
Power (tractors, etc.)	200	\$20.00	\$ 5.06	
Implements	130	13.00	3.46	
Irrigation	63	6.30	2.39	
Building	38	3.80	.84	
<b>Total Depreciation &amp; interest of investment</b>		<b>43.10 @ 8% (2/3 to celery)</b>	<b>11.75</b>	<b>54.85</b>
<b>Total Cost to Harvest (cost per crate \$1.26)</b>				<b>1,270.65</b>
<b>Harvest (packing, etc. includes supervision) (\$2.72 per crate)</b>				<b>2,720.00</b>
<b>Total Costs and Depreciation (cost per crate \$3.98)</b>				<b>3,990.65</b>

Labor costs, including fringe benefits and bookkeeping, are figured at the following hourly rates: tractor driver, \$4.70; other labor, \$3.70. Cash costs of fuel, oil, repairs for 60 h.p. diesel crawler, \$5.18 per hour and 40 h.p. wheel tractor, \$2.10.

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## CELERY PRODUCTION - WATSONVILLE DISTRICT - 1976

N. C. Welch, Farm Advisor, Santa Cruz County

Celery acreage in the Watsonville district in recent years has varied from 900 to over 1200 acres. The main harvest season runs from July through December. Yields vary from 600 to 1400 crates per acre. This coastal area has a mild, cool climate which provides a location for production of large yields of high quality celery.

Requirements: Celery grows best on deep, well-drained, very fertile soils that are free from salt and alkali. The crop prefers a heavy, textured soil. Cool days (60-70° F) during the last month of the growing season are essential for high quality celery. However, celery withstands heat during the first part of the growing season after seedlings are established.

Irrigation: From 3-1/2' to 5' of water in 12 to 15 irrigations is required to mature a crop of celery. Two to four irrigations are normally required to germinate celery seed. Celery seed requires soil moisture near field capacity to germinate.

Varieties: Various selections of Utah 52-70 or Florida 683 are direct seeded from early March through August. Early plantings from January to March are usually seeded to a slow bolt variety such as 96 or No. 12.

Planting: In planting the fields, the soil is first furrowed out forming beds. This is followed by a 4-row planter for direct seeding. Row spacing varies from 40" to 42" apart from the center of the beds with 2-bed rows 11" to 13" apart on the top of each bed. Approximately 3/4 pound per acre of "raw" celery seed is usually seeded in dry soils followed by an irrigation. Plants are thinned to 6" to 8" apart. Precision planting using coat seed is now being used in most fields. Some celery is transplanted either hand or machine. In Monterey County there is a period when no celery may be grown in order to help control Western celery mosaic.

Fertilization: Manure is applied to part of the acreage every few years. A common fertilizing practice would be to preplant 12-12-12 fertilizer at the rate of 1000 pounds per acre then followed by side dressing with a complete fertilizer after thinning. Celery is often fed nitrogen in the irrigation water at the rates of 20 to 40 pounds per acre per month or about every second or third irrigation. There is a very heavy demand for nutrients the three weeks before harvest. Total amounts of nutrients applied would vary from 225-350 pounds nitrogen per acre and 100-140 pounds per acre of both P and K.

Harvest: Harvest normally begins when at least 50% of the celery has reached the 2-dozen per crate packing grade. Celery is both field packed and shed packed in this area. The celery stalks are cut and trimmed by hand. If packed in sheds, the stalks are loaded onto a trailer by hand or with the aid of conveyor belts. In packing, the stalks are trimmed to a uniform length and sorted into sizes according to diameter -- 2, 2-1/2, and 3-dozen per crate are the most common.

Diseases and Insects: Various leaf blights, viruses and pink root are three types of the most common diseases in this area. Celery is attacked by a variety of insects which would include springtail, aphid and worms. The University of California issues a publication recommending chemical control for these problem. This publication can be obtained from the Farm Advisor's office.