Normal C. Welch
Farm Advisor
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CAULIFLOWER PRODUCTION
Watsonville District

Cauliflower acreage in the Watsonville District in recent years has varied from 1,200 to over 2,000 acres. Cauliflower can be planted and harvested every month of the year; howeve good head quality is hard to grow during the middle of summer. Yields vary from 380 to 650 cello wrapped cartons per acre. Tonnage per acre will vary from three to over six tons per acre. Approximately one-third of the cauliflower production is frozen. This coastal area has a mild, cool climate which provides an ideal location for production of large yields of high quality cauliflower.

REQUIREMENTS: Cauliflower grows best on fine textured, well drained, fertilized soils that are free from salt and alkali. Heat will adversely affect quality of this crop, especially if temperatures remain over 84 degrees during heading season. However, cauliflower can withstand heat after it has been well established in the field during its early growth stage. Any setbacks in growth will reduce both yield and head quality.

IRRIGATION: From 1-1/2 to 2-1/2 feet of water per acre in 4 to 6 irrigations is required to mature a crop of cauliflower. Cauliflower will suffer from winter rains if not planted on a well drained soil. This vegetable should never be allowed to suffer from lack of water as a check in growth can cause poorly shaped heads.

VARIETIES: Winter cauliflower, often referred to as April or Pearl cauliflower, is planted for harvest during late February through April because of its tolerance to frost. For other parts of the seasons, various Snowball types are used for fresh market. Snowball X-Y and Monarch 73 are the main varieties used for freezing during fall, early winter, late spring and summer periods.

PLANTING: Approximately one-fourth of the cauliflower fields are transplanted. The rest of the fields are direct seeded to a single row per bed 42" apart. Seeding rates will range from 1/3 to 1/2 pound per acre, depending on whether precision planting is used. Spring and winter crops can be seeded into moist soil. During the non-rainy season, it is common to seed in dry soil, then irrigate.

FERTILIZATION: Cauliflower often follows a heavily fertilized crop such as lettuce or celery. In this case, a 12-12-12 or other common ratio is applied preplant at rates of 600 to 800 pounds per acre. This is usually followed by two side dressings of nitrogen or a complete fertilization after thinning. Depending on rotation, cauliflower may need as little as 70 to 100 pounds of nitrogen per acre to as high as 260 pounds.

CULTURE AND WEED CONTROL: Cauliflower is hand-thinned to 14-18" within rows. Several promising herbicides are available for weed control. The April type cauliflower does not require tying of the leaves, as growth habit keeps the head covered. The Snowball type will require a rubber band placed around the leaves to prevent sunlight from discoloring the head when the flower is grown for processing.

HARVEST: Harvest normally begins when at least 15 percent of the heads can be cut for market. A crew will cut the heads with a knife and throw them into a tractor-pulled trailer or on a conveyor belt where the cauliflower is bulked. All cauliflowers are shed-packed in this area.

DISEASES AND INSECTS: Cauliflower is attacked by certain diseases and a number of insects which can feed on either the top portion or its roots. The University of California issues a publication recommending chemical control for these problems. This publication can be obtained from the Farm Advisors' office.

SAMPLE COSTS FOR CAULIFLOWER - FRESH

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Based on a Yield of 450 Ctns Per Acre Cello Wrap	Hours Per Acre: Man Labor	60 hp. Tract.	30 hp. Tract.	Trick Pickup	Cost Per Acre
Land preparation: disk, chisel, plane, etc.	3.5	3.5			$ 21.34
Preplant fertilizer and list	contract				3.50
Bed shape and roll	0.5		0.5		2.07
Plant: 4-row planter	1.0		0.5		3.14
Irrigation: 4 times	10.0			0.2	22.00
Thin and Weed	14.0				30.10
Side dress: 2x, contract $3.00	contract				6.00
Cultivate: 3x	2.0		2.0		8.30
Apply insecticides: 4x, contract $3.00					12.00
Apply rubber bands	16.00				34.40
Hoe: 1x	8.00				17.20
Miscellaneous work	1.0		1.0		4.15
TOTAL CULTURAL LABOR AND FIELD POWER	56.0	3.5	4.0	0.2	164.20
Irrigation: 2.5 acre ft. of water					13.00
Seed: 1/2-lb.					9.00
Fertilizer					45.60
Herbicide					28.00
Insected: 4x					36.50
TOTAL COST OF MATERIALS					132.10
Sub-total					296.30
General expense, office, car, etc., estimated at 5% of above					13.18
Management					20.00
County taxes, repair and mice					8.60
Land rent: $200/Acre double cropped to lettuce					100.00
TOTAL CASH OVERHEAD COST					141.78
TOTAL CASH COST					438.08
Overhead (equipment and buildings) based on 500 acres, 2 times cropped to lettuce or celery			Depreciation		
Trucks, tractors			$ 7.86		
Other equipment			4.17		
Shop equipment			2.98		
TOTAL DEPRECIATION			15.01		15.01
Interest on investment at 6%					8.45
TOTAL CASH AND DEPRECIATION COST TO HARVEST					461.54
Harvesting, cello packing, hauling, etc. ($1.85 per carton)					832.50
TOTAL COST OF PRODUCTION ($2.87 per carton)					$1,294.04

Labor costs hourly rates, including social security and compensation insurance: Laborers $2.15, skilled labor $2.85; cash cost per hour for a 60 hp tractor $3.25; 30 hp. wheel tractor $1.30; 1/2-ton pickup $2.00.

Overhead is based on 600 acres of double crop land, land lease: $200 per acre per year.

(3/72)