

AGRICULTURE SAMPLE LIBRARY

MAY 9 1968

COSTS FOR POLE SNAP BEANS PRODUCTION (Rented Land)

8 Tons Yield Per Acre

Watsonville Area - Santa Cruz County, 1967

UNIVERSITY OF CALIFORNIA BERKELEY

| | Man Labor | 40 hp. Tract. | Wheel Tractors | Truck | Cost Per Acre |
|--|----------------|---------------|------------------|------------|-------------------|
| | Hours per Acre | | | | |
| Land preparation, total | 4.0 | 4.0 | | | \$ 15.80 |
| Preplant irrigation & preparation | 2.0 | .5 | .5 | | 5.88 |
| Planting: 2 men, planter \$1.00 | 2.0 | | 1.0 | | 5.60 |
| Prestaking cultivation, 2 times | 1.5 | | 1.5 | | 5.10 |
| Irrigation, 6 times | 12.0 | | | | 21.00 |
| Staking 7 men, Tractor & staker \$10 | 7.0 | | | 1.0 | 24.70 |
| Anchor post work | 2.0 | | | | 3.50 |
| Stringing & stringer, \$5.00 | 7.5 | | | | 18.13 |
| Cultivation after staking | 6.0 | | 6.0 | | 20.40 |
| Hoe, weed and train vines | 4.0 | | | | 7.00 |
| Miscellaneous other cultural work | 6.0 | | 0.5 | 1.0 | 13.78 |
| Total Cultural Labor | 54.0 | 4.5 | 9.5 | 2.0 | 140.89 |
| Picking 3½¢ per lb. & ½¢ supervision, transportation & housing | | | | | 640.00 |
| Extra supervision and miscellaneous | 5.0 | | | | 11.00 |
| Hauling is by buyer if processed | | | | | |
| Total Harvesting Cost | | | | | 651.00 |
| Post harvest - remove wire | 2.0 | | 1.0 | | 5.15 |
| Remove and store stakes | 12.0 | | | 3.0 | 28.35 |
| Disk once | 0.5 | 0.5 | | | 1.98 |
| Total Labor and Field Power | 73.5 | 5.0 | 10.5 | 5.0 | 827.37 |
| Irrigation water: power for 20 acre inches | | | | | 12.00 |
| Seed, 50 lbs. at 42¢ | | | | | 21.00 |
| Fertilizers & manure | | | | | 54.75 |
| Stake rent 800 at 2¢ | | | | | 16.00 |
| Wire cost - 4 year use, staples, sleeves | | | | | 9.00 |
| String and twine | | | | | 30.00 |
| Insecticide | | | | | 18.00 |
| Total Material Costs | | | | | 160.75 |
| Total Labor and Material Costs | | | | | 988.12 |
| General expense, estimated at 5% of above | | | | | 49.41 |
| Land rent -- \$125 (2/3 to beans) | | | | | 83.33 |
| County taxes on equipment | | | | | 1.50 |
| Repairs and miscellaneous | | | | | 6.00 |
| Total Cash Overhead Costs | | | | | 140.24 |
| Total Cash Costs | | | | | 1128.36 |
| Equipment overhead based on a 100 A. farm unit (double cropped) with around 25 acres of beans. | | 6% int. | Depreciation | | |
| | | | Dollars per acre | | |
| Building for equipment | | .40 | .70 | | |
| Irrigation: venter's pipe 2/3 annual | | 1.40 | 3.00 | | |
| Tractors and truck cost to beans | | 4.00 | 12.00 | | |
| Tillage and miscel. equipment | | .70 | 2.40 | | |
| Total Depreciation | | | 18.10 | | 18.10 |
| Total Cash and Depreciation Cost | | | | | 1146.46 |
| Interest on investment at 6% | | 6.50 | | | 6.50 |
| Total All Costs (cost per ton with 8 ton yield -- \$144.12) | | | | | \$ 1152.96 |

Labor costs are figured at the following hourly rates: tractor driver, \$2.20; other labor, \$1.75 (includes Social Security and Compensation Insurance). Cash costs of fuel, oil, repairs and also license and insurance for the truck were figured as follows: 40 h.p. diesel crawler tractor, \$1.75; 30 h.p. wheel tractor, \$1.20; slim tractor, \$0.75 and truck, \$2.00.

Burt B. Burlingame, Extension Economist
University of California, Berkeley

Norman C. Welch, Farm Advisor
Agricultural Extension Service
Santa Cruz County

GROWING POLE SNAP BEANS
Santa Cruz County

Green beans have been grown for fresh market and processing in Pajaro Valley for over 12 years. With the loss of foreign labor, however, pole bean acreage has declined from a high of 2170 acres in 1962 to 815 acres in 1965, according to an Agricultural Commissioner's Report. Santa Cruz County has a mild, cool climate which provides an ideal location for good production of high quality beans.

Requirements: Green beans make their best growth on deep, well-drained, fertile soils that are free from salt or alkali. They require fairly warm daytime temperatures and a frost-free growing season.

Irrigation: Eighteen to 22 acre-inches of water in 5 to 7 irrigations will be required to produce a high tonnage crop of good quality. Green beans are sensitive to salt and boron in irrigation water. Good quality water is needed for good yields.

Cultural Practice: Green beans are seeded from May until June. Distance between rows varies, but 50-54 inches is common. Time and frequency of cultivation depends on the amount of weeds, but usually one cultivation before staking and three after staking is adequate. When the plants have become established, stakes are inserted every 15 feet in the row and a wire-twine trellis is attached to the stakes for support of the growing vines.

Fertilizer is side dressed when plants are 8-10 inches high and anhydrous ammonia can be applied to the water after the first picking. Picking begins 65 to 70 days from planting. Five pickings are common, usually 4-5 days apart.

Varieties: Blue Lake (F.M.I.) is the most common variety for processing. Some acreage of Ramano is being contracted by processing companies. Kentucky Wonder is a common fresh market bean.

Diseases: Mildew and rhizoctonia are the two major bean diseases in Santa Cruz County. Rhizoctonia becomes a problem in soils which are planted too early or too wet. Seed treatment with Arasan is helpful. Mildew can usually be controlled with applications of sulfur combined with the insecticide.

Pests: Black aphid, wooly caterpillars, lygus bug, and white fly appear to be the most common pests. Printed chemical insecticide recommendations are available from the Farm Advisors' Office upon request.

Yields: Blue Lake yield averages between 9 and 10 tons per acre in Pajaro Valley, depending upon growing conditions. Ramano and Kentucky Wonder probably yield an average of closer to 8 tons of good quality beans.