

C O S T S A N D R E T U R N S
I N P R O D U C I N G
C A N N I N G F A C T O R Y S N A P B E A N S

7 New York Farms

1951

by

C. D. Kearl

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture
Cornell University, Ithaca, New York

March, 1952

A. E. 794

COSTS AND RETURNS IN PRODUCING SNAP BEANS^{1/}

In 1951, there were approximately 125,000 acres of snap beans grown in the United States for processing. About 20 per cent of these were grown in New York State. The acreage reported for 1951 for the State was 27,000.

Of the total acreage grown in New York about 80% is from 8 counties -- Erie, Wayne, Oneida, Chautauqua, Genesee, Orleans, Madison, and Cortland. In 1951, there were 7 farmers in the last named county who kept accounts on their canning factory snap beans. The average yield per acre for these farms was 2.4 tons (Table 1). This is 0.7 tons more than the 1.7 tons average yield for New York State for the year. It is higher by about the same amount than the average yield for the State for 1937-41 and for 1947-51.

Table 1. TONS PER ACRE OF CANNING FACTORY SNAP BEANS
NEW YORK STATE
7 Farms in Cortland County

Year	New York State	Cortland County
Average 1937-41	1.7	
1946	1.7	
1947	1.4	
1948	1.6	
1949	1.8	
1950	1.7	
1951	1.7	2.4
Average 1947-51	1.6	

COSTS AND RETURNS PER ACRE

Costs per acre

It took 15.6 hours of man labor per acre to grow canning factory snap beans on the 7 farms in Cortland County (Table 2). In addition there was a small amount of labor for hauling and harvesting the beans. The main harvesting cost, which was the labor performed in picking the beans, was borne by the canning factory company. The number of tractor hours in growing the snap beans were 6.6. The fertilizer application averaged 331 pounds per acre and 1.2 bushels of seed were used.

The principal items of cost in growing snap beans were labor, seed, fertilizer, land, and equipment. The labor cost \$14.97 per acre and made up 25.2 per cent of the total cost. Seed was the next most important item and averaged \$9.42. This was 15.9 per cent of the total cost. The fertilizer cost averaged \$7.90 per acre and was 13.3 per cent of the total. Power and equipment cost came to \$10.83 per acre and were 18.3 per cent of all costs. The total cost of growing snap beans were \$55.41. There was also \$3.93 in harvesting and selling costs. This was in addition to the harvesting costs borne by the canning factory company. The total cost to the farmer in producing an acre of snap beans averaged \$59.34.

^{1/}Author's acknowledgments. This publication was made possible because 7 New York farmers were willing to cooperate with their County Agent and the College of Agriculture at Cornell. The County Agent was I. B. Perry. The stenographic work was by Gloria Howell. Dr. M. C. Bond assisted with the project.

Table 2. COSTS PER ACRE IN PRODUCING CANNING FACTORY SNAP BEANS
101 Acres on 7 Farms, Cortland County, New York, 1951

Item	Amount	Percent
Tons yield	2.4	
Man hours to grow	15.6	
Tractor hours to grow	6.6	
Bushels of seed	1.2	
Pounds of fertilizer	331	
Cost to grow:		
Land	\$ 7.00	11.8
Man labor	14.97	25.2
Tractor work	5.32	9.0
Horse work	0.49	.8
Other equipment	5.02	8.5
Fertilizer	7.90	13.3
Spray and dust	1.33	2.2
Seed	9.42	15.9
All other	3.96	6.7
Total growing cost	\$55.41	93.4
Harvesting and selling cost	3.93	6.6
Total cost	\$59.34	100.0

Costs and Returns

The returns per acre of snap beans averaged 2.4 tons which were worth \$79.12 (Table 3). Not all of this tonnage was harvested, however, for the yields included the amount picked and that not picked but estimated for second and third pickings and paid for by the canning factory company. It was in all cases, the amount paid for by the canning factory company. When the cost of \$59.34 per acre is deducted from the returns, the profit remaining was \$19.78. The return per hour of labor was \$2.23.

Table 3. COSTS AND RETURNS PER ACRE IN PRODUCING CANNING FACTORY SNAP BEANS
101 Acres on 7 Farms, Cortland County, New York, 1951

Item	Amount
Returns	\$79.12
Cost	59.34
Profit	\$19.78
Return per hour of labor	\$ 2.23

COSTS AND RETURNS PER TON

Costs per ton

The average amount of time required per ton of snap beans in growing was 6.5 man hours (Table 4). The tractor work amounted to 2.7 hours per ton.

The total cost of growing of snap beans averaged \$24.62 per ton. Of this, \$22.98 was for the actual growing operation and \$1.64 was for harvesting costs over and above those borne by the canning factory company. The labor cost per ton of snap beans was \$6.21. Fertilizer came to \$3.28 and the seed cost was \$3.91. The total power and equipment cost per ton of snap beans was \$4.49.

Table 4. COST PER TON IN PRODUCING CANNING FACTORY SNAP BEANS
7 Farms, Cortland County, New York, 1951

Item	Amount
Man hours to grow	6.5
Tractor hours to grow	2.7
Bushels of seed	0.5
Pounds of fertilizer	137
Cost to grow:	
Land	\$ 2.90
Man labor	6.21
Tractor work	2.21
Horse work	0.20
Other equipment	2.08
Fertilizer	3.28
Spray and dust	0.55
Seed	3.91
All other	1.64
Total growing cost	\$22.98
Harvesting and selling cost	1.64
Total cost	\$24.62

Costs and Returns

The returns per ton averaged \$32.82 (Table 5). Since the cost per ton was \$24.62, the profit amounted to \$8.20. As was noted above the returns were not necessarily all harvested beans. In some cases they included estimates for second and third pickings which were not made.

Table 5. COSTS AND RETURNS PER TON IN PRODUCING CANNING FACTORY SNAP BEANS
7 Farms, Cortland County, New York, 1951

Item	Amount
Returns	\$32.82
Cost	24.62
Profit	\$ 8.20

RESULTS FOR INDIVIDUAL FARMS

The acreage of snap beans on the 7 farms varied from 10 to 21 (Table 6). The yield was lowest on farm number 50 with 0.7 tons and was highest for farm number 45 with 4.6 tons. The largest number of hours of labor were on farm number 51 where a great deal of time was spent in weeding the beans. Two of the farms averaged 7 hours of labor per acre in growing and 4 farms had labor requirements in growing of 15-18 hours. The number of bushels of seed per acre varied from 0.9 to 1.9. The fertilizer application was lowest on farm number 50 with 88 pounds per acre and was highest on farm 49 with 583 pounds.

The cost per acre in growing the crop ranged from \$43.22 to \$73.18. There was an even wider range on the returns from \$23.26 to \$137.50. The profits varied from \$-24.55 per acre to \$64.32.

The cost per ton was highest for farm number 50 which had the very small yield. The average was \$64.99. The lowest costs per ton were found on farms 45 and 46 where yields were high. The costs averaged \$15.97 and \$15.67, respectively. The returns per ton varied from \$30 to \$38.52 and the profits varied from \$-30.01 to \$15.61.

Although most of the farms made a return for their labor, 2 farms lost the value of their labor and an additional amount. The range was from \$-1.73 to \$4.71 per hour.

Table 6. RESULTS FOR INDIVIDUAL FARMS IN PRODUCING CANNING FACTORY SWAP BEANS
7 Farms, Cortland County, New York, 1951

Farm number	Number of acres	Tons yield per acre	Amount to grow			Per acre seed bushels	Per acre fertilizer pounds	Per acre		Per ton		Return per hour of labor	
			Man hours	Tractor hours	seed			Cost	Returns	Profit	Cost		Returns
45	12	4.6	17	9	1.4	500	\$73.18	\$137.50	\$64.32	\$15.97	\$30.00	\$14.03	\$4.71
46	11	3.4	18	7	1.0	300	53.41	106.64	53.24	15.67	31.28	15.61	3.57
47	21	2.7	15	6	1.6	300	58.84	92.99	34.14	21.79	34.44	12.65	3.27
48	20	1.4	7	4	0.9	300	48.83	52.58	3.75	35.77	38.52	2.75	1.46
49	12	1.6	15	7	1.0	583	72.19	47.64	-24.55	45.59	30.09	-15.50	-0.13
50	10	0.7	7	7	1.9	88	43.22	23.26	-19.96	64.99	34.98	-30.01	-1.73
51	15	2.8	31	8	0.9	267	67.85	90.69	22.84	24.64	32.94	8.30	1.65