

Ventura 1970  
LARGE LIMA BEANS

Yields

The Agricultural Commissioner reports yields that average a little less than 2,000 lbs/A over the past five years. The yield used in this sample cost is 2000 and 2500. These are the kinds of yields expected on good land with good cultural practices. Even with the good prices of the past few years there is a tendency for dry lima beans to be crowded off the very best land by vegetable crops.

Varieties and Seed

Each year a small percentage of the total seed requirement of Ventura lima beans is produced in a certified seed program of the California Crop Improvement Association. The handling of this seed is closely supervised to insure varietal purity. Much of this certified seed is used for growing uncertified seed the following year. It is good business for bean growers to either plant certified seed or to be sure that the seed they use was grown from certified seed.

Bean growers are still in the process of changing from the Ventura Lima, which, depending on growing conditions, may be white, a grayish-white, or greenish-white, to the White Ventura variety which has a true white seed coat. Even if harvested immature the end product is a white bean. As white Ventura bean seed is re-purified or improved in any way, the year of release of the improved seed follows the variety name. For example, the white Ventura seed now being produced in the certified seed program is called White Ventura 65. Seed for White Ventura-N, a nematode resistant variety, is being increased commercially this year (1969).

Soil and Climate

The deep aluvial soils of Ventura County, unless excessively saline, are well suited to the growing of large lima beans. For the best of yield and quality this crop requires a mild summer climate. The climate of the Oxnard Plain and of areas extending inland to Santa Paula and almost to Moorpark, meets the requirements of this crop.

When to Plant and Harvest

The lima bean is a strictly warm-weather crop. Planting before the 25th of April is not advisable and the ideal time for planting is between May 1 and May 10.

Beans should be cut at a time when nearly all the beans are fully developed but while some of the pods are still green. Beans planted between May 1 and 10 are usually ready to cut soon after the first of September and ready to thresh two or three weeks after cutting.

### Planting, Cultivation and Weed Control

Seedbed preparation for planting Ventura limas involves making a smooth seedbed free of compaction in the top 5 inches and with a shallow dry mulch on the surface. This is essential for the proper operation of the Ventura planter which has a simple shovel furrow opener and depends on loose soil falling into the furrow for covering the seed. No pack wheel is used.

Cultivation begins soon after the beans are out of the ground and tall enough so that weeds in the row can be covered in the first cultivation. Under good cultural practices weeds are well controlled by cultivation, however some growers mix an herbicide with the soil in the process of preparing the seedbed.

### Fertilizing

Although most land used for growing lima beans will produce a satisfactory crop without fertilizing, small responses to 100 lbs/A of nitrogen applied before planting can be expected, especially in sandy soil where the crop is to be irrigated twice.

### Irrigation

Soil with a high moisture-holding capacity on the Oxnard Plain will produce a satisfactory crop of large lima beans without irrigation if winter rains or pre-irrigation has filled the soil to a depth of 5 feet or more. However, most land will produce a better crop with one or two irrigations. Irrigation water is usually applied in small furrows in alternate row spaces.

### Pest and Disease Control

Root-knot nematode, Rhizoctonia stem canker, Lygus bugs, aphids, and two-spotted mites are the principal diseases and pests of large lima beans. On land used to grow beans every year, soil fumigation for nematode control may be necessary only every second or third year, but where other

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crops susceptible to root-knot nematode are grown either in the winter or in summer rotation with the beans, annual fumigation may be advisable.

Rhizoctonia stem canker is partly controlled by seed treatment and partly controlled by the application of a combination of fungicides applied in granular form at planting time. Aphids can be a problem any time, and fields have to be watched with vigilance to decide when to apply insecticides. It is advisable to observe lygus bug populations by sweeping the fields at approximately weekly intervals with a standard procedure using a standardized insect net. On rare occasions lygus bugs will interfere with setting of pods. The more common damage from lygus bugs comes while the beans are growing in the pods. In their feeding activity the lygus bugs puncture the growing beans and punctured beans have to be removed by hand sorting to meet grade standards. A small population of two-spotted mites may persist throughout the growing season without doing much damage. Just before cutting time sudden increases in two-spotted mite may need to be controlled.

LARGE LIMA BEANS, 1969

Yield: 20 Cwt/A and 25 Cwt/A

Land Use: 7 Months

Remarks: Planted in May

Harvested: September and October

	Labor		Cash Costs per Acre		Total per Acre
	Per Hrs.	Cost	Machinery	Contract & Materials	
<b>CULTURAL CASH COSTS</b>		\$	\$	\$	\$
Plow	.68	1.67	2.38		4.05
Disc and roll 2 x	.52	1.27	1.82		3.09
Springtooth harrow 2 x	.32	.78	1.12		1.90
Drag harrow 2 x	.32	.78	1.12		1.90
Plant - 2 men	.60	1.32	.60	Seed, 90 lb/A \$18.00	19.92
Cultivate 3 x	1.00	2.43	1.98		4.41
Irrigate 2 x	2.50	4.87	.40	1 A-ft. water 5.00	10.27
Spray 1 x		Contract		10.50	10.50
Hoe	6.00	11.70			11.70
Fumigate 1 x in 2 yr.		Contract		½ (29.00 + 3.50)	16.25
Disc & roll refuse 1 x	.26	.64	.91		1.55
<b>Total Cultural Cash Costs</b>		<b>25.46</b>	<b>10.33</b>	<b>49.75</b>	<b>85.54</b>

CASH OVERHEAD

Land rent	@ \$14.60 per acre-month x 7	102.20
Taxes on Machinery	@ .24 per acre-month x 7	1.68
Supervision	@ 2.00 per acre-month x 7	14.00
General Expense	@ 2.00 per acre-month x 7	14.00

<b>Total Cash Overhead</b>	<b>@ 18.84 per acre-month x 7</b>	<b>131.88</b>
<b>Total Cash Costs except Harvesting</b>		<b>217.42</b>

HARVESTING AND SELLING CASH COSTS

Cut	.30	.60	.45	1.05
Windrow	.30	.60	.45	1.05
Thresh and haul	Contract @ \$0.85 Cwt. (2Q Cwt)			17.00
Cleaning and warehousing	@ 2.00 Cwt.			40.00

<b>Total Harvest Cash Cost</b>		<b>59.10</b>
<b>Total Cultural and Harvest Cash Cost</b>		<b>276.52</b>

INVESTMENT OVERHEAD

Depreciation	@ \$2.40 per acre-month x 7	16.80
Interest	@ .72 per acre-month x 7	5.04

<b>Total Investment Overhead</b>	<b>@ 3.12 per acre-month x 7</b>	<b>21.84</b>
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<b>Total Cost per Acre @ 20 Cwt/A</b>		<b>298.36</b>
<b>Total Cost per Acre @ 25 Cwt/A</b>		<b>312.61</b>

<b>Total Cost per Cwt. @ 20 Cwt/A</b>	<b>\$14.91</b>
<b>Total Cost per Cwt. @ 25 Cwt/A</b>	<b>\$12.50</b>

LARGE LIMA BEANS

CASH FLOW - EXCLUDING LAND RENT AND TAXES

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

Start  
\$35

Grow  
\$65

Harvest  
\$60

Acres, Yields and Prices Reported by Ventura Co. Agricultural Commissioner

<u>Year</u>	<u>Acres</u>	<u>Cwt/A</u>	<u>\$/Cwt.</u>	<u>\$/A</u>
1962	14,700	21.0	11.00	230
1963	14,500	20.0	10.75	215
1964	10,000	17.4	13.00	228
1965	10,700	18.4	13.50	247
1966	9,200	16.8	18.00	303
1967	11,500	17.2	18.00	310
1968	9,600	19.0	14.00	267