

was 233,932 pounds. The counties where this is chiefly cultivated are Los Angeles, Sutter and Yuba. The success of the cultivation is variously estimated, but the profits reported in some localities encourage the belief that it will become a prominent crop. Four to five cents per pound are readily obtained for castor beans.

**FLAX.**—The establishment of extensive Linseed Oil Works in San Francisco has stimulated the cultivation of flax, and the breadth of land devoted to this product is rapidly increasing. In 1873, says the official report, 3,959 acres were in flax. The Surveyor-General estimates that 2,000 pounds of seed can be grown per acre, returning \$80, seemingly much more profitable than wheat. The stalk is seldom saved for the fibre, as, when cultivated for seed, it is not valuable for spinning, and it is asserted that when grown in the warm climate and rich soil first appropriated by the husbandman, it becomes too brittle for use. Flax and hemp are indigenous to California, and there can be no question but that they may be grown to perfection for every purpose to which they are usually applied. A bagging factory at Oakland, in Alameda County, uses a large quantity of jute, which it imports, but would substitute flax and hemp were such fibre obtainable and properly prepared. Four hundred hands are employed, and ten thousand sacks are turned out daily. During the season of 1874 the Pacific Cordage Company planted a field of five acres in Alameda County, in hemp, as an experiment, which yielded about 1,000 pounds of fibre to the acre, of excellent quality, returning a value of about \$250 per acre. The culture and manufacture of flax, hemp and jute offer grand opportunities for unlimited capital.

**RICE.**—Much as the cultivation of rice has been advocated, the favorable opportunities shown forth and great profits assured, this valuable cereal does not yet enter into any table of California agricultural statistics. Some fifty million pounds are imported annually, at a cost of upward of three million dollars. The extended area of tule lands in various parts of the State, particularly about the delta of the Sacramento and San Joaquin rivers, are eminently suited to the culture of rice, and the inquiry is often propounded why it has never been undertaken. Experiments have been reported as in contemplation, but no results are returned. These lands are now devoted to wheat and produce largely, but as that grain brings only from one and a half to two cents per pound, the higher price of rice, being from five to eight cents per pound, it appears that the cultivation of the latter would be most tempting to the enterprising farmer. Upland rice is grown successfully, as proven by experiment of Mr. J. H. Taylor, who, in 1874, planted three acres in Livermore Valley, which grew well. It is the belief of the experimenter that upland rice will grow on any land that will produce good barley.

**HOPS.**—In the cultivation of the hop it has been necessary to overcome a prejudice,—as it was in many other things,—and now that the California hop is admitted as superior to all others, unless it is the Bavarian, its culture is advancing. The quantity produced it is difficult to ascertain, as no reliable statistics are collated, the official reports varying so greatly from those obtained privately or from newspapers as to render them totally valueless. The County Assessors return a product of about half a million pounds per annum, at the rate of from two hundred to eight hundred pounds per acre; while unofficial sources report a product of from one to two thousand pounds per acre. Formerly the brewers imported the hops required in their business, but now they are exported largely, California hops generally leading the market in New York, and selling at from thirty to fifty cents per pound. The Eastern and English markets for the superior California hops is almost unlimited, and they seem capable of driving the product of the yards of Wisconsin and New York, the principal hop-growing sections of the East, from the market. Here the yield is greater, the product better, and the price higher. This is another branch of cultivation that will relieve the soil and the market of wheat, greatly to the advantage of the farmer.

**SILK.**—For several years the experiment of silk culture has been most successfully tried. The mulberry tree grows luxuriantly everywhere, and the climate, except, perhaps, immediately along the coast, where cold and damp in summer, or in the mountains above the altitude of three thousand feet, is most favorable to the health and working of the silkworm. Progress in the culture and manufacture, however, has not been commensurate with the importance of the matter or the seeming profits claimed for such enterprise. Under the stimulus of a bounty offered by the State, a number of agriculturists entered upon the production of mulberry trees and the rearing of silk-worms, and their success was highly marked. One of these reported that he fed the leaves from three and a half acres of land covered with two-year-old *morus multicaulis* trees, grown where they stood, from cuttings. They had been cut back, the preceding winter and spring, close to the ground, and the tops used for cuttings, so that they did not furnish much over one-half the foliage they would have done had they been pruned with an eye to that purpose. The result was 485 ounces and 13½ pennyweights of eggs, sold at \$1 an ounce—\$1,946.70; value of eggs retained, \$1,897.50; perforated cocoons sold at \$75; or a total value of \$3,920. The expense for labor, etc., was \$472, leaving a net profit of \$3,448. The feeding commenced on the 1st of June, and on the 25th of July the eggs were all made. Here is a profit of \$1,000 per acre from the second year of planting the trees, and not two months' time occupied in feeding the silkworms or gathering the harvest. This, however, was at an exceptional period, when the demand for eggs in France was great and the price high, but it nevertheless demonstrated the adaptability of the country for the culture. During the month of August of the same year the same gentleman, from the same trees, fed a like number of worms of the Japanese trivoltine variety, and produced a large quantity of cocoons.

Another silk-grower, in Yolo County, reports that from the tenth of an acre of two-year-old trees he gathered 600 pounds of leaves, or at the rate of 6,000 pounds per acre. From these leaves and some he obtained from another source, he fed the worms from one ounce of eggs of the French variety. It took 1,500 pounds to bring them to maturity. They produced sixty ounces of eggs and twelve pounds of cocoons, after being perforated by the moths. These, at \$4 an ounce for eggs, and seventy-five cents per pound for the cocoons, (export prices) would be worth \$249. At this rate, an acre would bring \$996. This was in 1839, an exceptional year, the worst ever known for the business in California. The cost of cultivating an acre of two-year-old trees, and picking and feeding the leaves to the worms from four ounces of eggs, would not exceed \$200, leaving a clear profit from one acre the second year of \$796.

A Sacramento gentleman reports that he fed the worms of a little less than three ounces of eggs, picking his leaves from the trees on an acre of land. Some of the trees were four years old; most of them, however, were two. He produced 280 ounces of eggs and forty-eight pounds of perforated cocoons. The eggs were sold in the year 1839 at \$6 an ounce, bringing \$1,680 for eggs and \$36 for cocoons, a total of \$1,716. Deducting expenses of feeding, \$175, it leaves a clear profit from an acre of \$1,541.

The experiment of silk culture has also been made at Nevada, at an elevation of 2,300 feet in the mountains, with equal if not greater success; also, in Santa Barbara, in the southern part of the State, near the sea; so we may say that the capacity of California for the production of silk is unlimited.

The principal efforts of the silk culturists have been in the production of eggs, to supply the ravages of disease in Europe. That demand becoming less, and the State bounty being withdrawn, interest in the culture declined. Two silk manufactories having been established, a market is offered for cocoons, or reeled silk, and as the production is the simple work of the household, it is particularly inviting to the small farmer.

This branch of agriculture requires but little land or capital, and labor but for a few months of the year, light, and which the women and children of a family can perform. In years of drought, to which