

THE COFFEE INDUSTRY

By W. M. BRUNER in Governor Carter's annual report to the Secretary of the Interior:

The coffee crop of 1903 was the largest in the history of the islands, and exceeded 3,000,000 pounds. The total value of all coffee exported to the United States and other countries for the year ending June 30, 1904, was \$184,180; for 1903, it was \$236,860, while for 1902 it was only \$126,644.

While coffee is grown in all the principal islands of the group, 95 per cent of it is produced on the Island of Hawaii, of which over 2,000,000 pounds or 80 per cent of the total Hawaiian production is produced in the district of Kona (whence the name Kona coffee), where it may be stated roughly that the industry furnishes employment to 1,000 people.

The entire area planted to coffee and now producing on the islands is under 4,500 acres. Much of the planting is classed as wild coffee; that is, the trees are not topped and are cultivated only in an irregular manner. These trees are cheaply cared for, growing somewhat under shade and in rocky ground, the growth of weeds is small and while the crop of coffee on such trees is no more than 700 or 800 pounds per acre, it is cheaply picked, for it ripens almost uniformly. In better soil where

the trees are topped, overbearing is the result, to the very great detriment of the trees, but by the application of fertilizer these trees are maintained in good condition, while the yield of coffee per acre is more than double that from the untopped, so-called wild trees.

The cost of production in Kona is about 7 1/2 cents per pound, and the coffee is bringing the producer about 10 cents at present. The cost of production in Hamakua is probably 10 cents and should net the producer 12 cents, as the Hamakua bean is larger and more sought after by the coffee roasters. The difference in the cost of production in the two districts, which produce the bulk of the crop, is due chiefly to the difference in the cost of picking, for in Hamakua coffee does not ripen as regularly and uniformly as it does in Kona.

The price of coffee has been very low for the past seven years, but the year 1903 was the most remarkable in its history, for during it prices reached their lowest basis and production its largest maximum. While the Brazil crop has very materially failed from the enormous 1901-2 crop of 15,000,000 bags, her production has been great and there has been an oversupply of Brazilian coffee. At the same time the production of mild coffees, in which class all coffee except Brazil production is included, has been on the increase, and in 1903 was over 5,000,000 bags. This affected the sale of the Hawaiian coffees, and will no doubt have a depressing effect on the sale of the next crop. So, that while Brazilian production has fallen off, and is likely to continue to, on account of the prohibitive tax



SCENE ON COFFEE PLANTATION.

against planting in Sao Paulo, where Santos coffee comes from, planting is not likely to take place there for four years, in the meanwhile the production

of mild grades has increased from 3,000,000 to 5,000,000 bags. But it can safely be stated that the world's consumption of Brazilian coffee has gone

ahead of production for the first time since 1899-1900, although in a comparatively small way, so that overproduction in Brazil, which was the most depress-

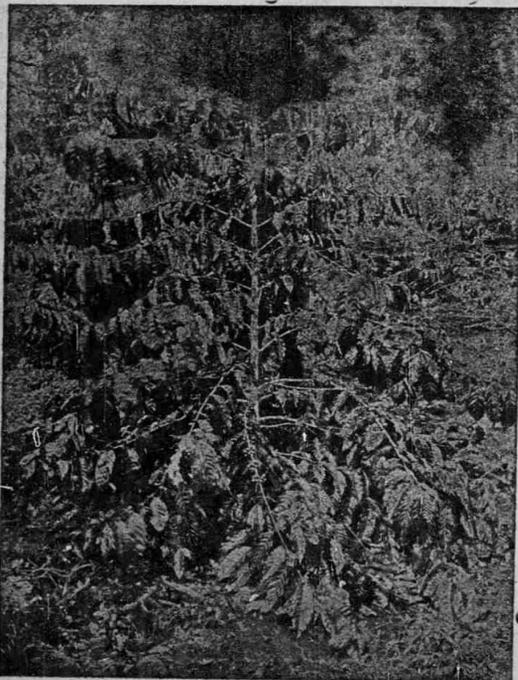
ing factor in the coffee-producing world, has ceased. Frost in 1902 and drought in 1903 put a good many plantations out of bearing, while the long period of low prices caused hard times, without any new planting, and thousands of the laboring class are leaving the country. It is said that over 20,000 left last year.

The United States is the largest purchaser of coffee, using about 11 pounds per capita, importing in 1903 \$61,329,564 worth, of an average value of 6 1/2 cents per pound. Four-fifths of this coffee came from Brazil and was paid for mainly in cash, for the total imports from Brazil for the year amounted to \$60,000,000, while the exports from the United States were only \$10,000,000, leaving \$50,000,000 to be paid in cash.

To show what this means in a long period, during the years 1830-1903, inclusive, according to statistics by the United States Government, the import of coffee into the United States total 22,125,000,000 pounds, valued at \$2,500,000,000, import price.

The United States employed 10,555 men in distributed mail last year. The cost, distributed among 1,400 lines, was \$63,594,000. In 373 accidents to mail cars, eighteen clerks were killed and seventy-eight seriously injured.

A catalogue of autograph letters published by a London dealer, has surprised a good many people by showing the fact that Charles Dickens' full name was Charles John Huffman Dickens.



A KONA COFFEE TREE.

ABOUT THE LIVE STOCK INDUSTRY

By ALBERT F. JUDD in Governor Carter's Annual Report to the Secretary of the Interior.

It is not an easy matter to report briefly the present state of the livestock industry in Hawaii. In the first place there is little information available, even in the office of the secretary of the Hawaiian Live Stock Breeders' Association. The association is young. An accurate report at the present time could be made only after personal inspection of the ranches on each island. The second difficulty is caused by the absence of any history of the industry, although cattle and sheep have been raised here, and horses also, since the days of Vancouver.

RANGES.

It is difficult also to concisely describe the ranches themselves, situat-

ed as they are on the eight islands, separated by rough channels from the principal market in Honolulu and each of the ranches having its own peculiar topographical conditions. While the ranches on the low levels, namely, below 2,000 feet elevation, have many characteristics in common, there is a great difference among them, due to whether or not they are on the windward or leeward side of the island, the rainfall on the leeward side being much less than, on the windward. Barren lava flows have their influence. The ranches above the 2,000 feet elevation line are in another class, all of them practically being on the islands of Maui and Hawaii.

GRASSES.

On the low level ranches on the leeward side the grasses in the pasture become dry in the hot summer months.

The pastures at this time are assisted, however, by the beans of the algeroba tree. As this tree spreads, as it does readily, being carried in the dung of animals, the fodder problem during the summer is lessened. It is on the leeward sides of the islands that this tree has taken its greatest hold. Apparently it has begun to be acclimatized on the windward slopes, although it has as yet made little impression.

After the winter rains these pastures are all that could be desired. Their lack of permanence, however, makes their present condition undesirable.

The lack of distinct seasons and regularity in rainfall have to be taken into account by every ranchman. These facts complicate for him the problem of having his herds always well fed.

There are a number of indigenous grasses on the islands which are excellent feed and are of great value for fattening purposes. They are mostly grasses that cannot stand continued heavy stocking, and large areas of dry and rocky country, which in the past were considered the best fattening lands, are nearly denuded at this time. Much has been done by fencing off such places and giving the location an entire rest for a period of time, with invariably results in the Hawaiian grasses again taking hold.

The introduction of dry range grasses, however, will do much for this class of country. Experiments are now being conducted and the importation of seed is steadily going on in the different estates throughout the Territory. On the moister upper elevations a great variety of the best grasses in foreign countries have been established here within the past few years. Among the grasses which are doing well are the perennial rye grass, Kentucky blue grass, redtop, orchard grass, Natal redtop, Bromus inermis, Paspalum dilatatum.

The introduction of new grasses has had much to do with the increased carrying capacity of the various ranges. While much of the land formerly used for cattle has been taken for sugar plantations and much more destroyed, so far as immediate use is concerned by lantana, yet the carrying capacity of the island today is far greater than it ever was before. Of course this is not alone accounted for by a greater diversity of good feed, but is largely due to the general improvement of the ranges in consequence of intelligent distribution of water, better stock, and also in the construction of paddocks, which allow the grazer to regularly rest portions of his ranch whenever so desired, and minimizes the danger from overstocking and running out some of the best grasses growing upon the land.

This question of fodder in the pastures is now mentioned because of its intimate relation to the present state of the livestock industry.

HORSES.

From what has been stated it will be seen that horses are raised under the best conditions on the uplands, where the mares are well fed all the year round. The hard conditions of the lowlands are mainly responsible

for the degenerate kanaka plug and rice field plow horse.

This thought leads me to say that the Island of Hawaii produces a surplus of horses of the broncho type superior to those recently passing through Honolulu from San Francisco to Manila on the U. S. army transport Dix, and possessing the additional advantage of not needing to be acclimatized for use in the Philippines, and also of being 2000 miles nearer Manila. As Hawaii has horses to sell it surely is not out of place to call the above matter to your attention.

CATTLE.

The cattle industry has not reached the feeding stage. This is due to the absence of fodders, which can be grown cheaply. Experiments are now being made with the growing of corn in the Kula district on the Island of Maui, and will shortly be undertaken on Molokai. It has been suggested also that the waste from the sugar mills, together with the cane tops now not utilized, might be available also for this purpose. All the cattle and sheep slaughtered on the islands are what would be called "grass fed."

Different ranges are adapted to different breeds of cattle; it cannot be said that any one breed are the cattle for the islands. Without any accurate data I should say that the Hereford is the most popular, or, at least, should be in most locations. There has been a large introduction of Herefords, Short-horns, Angus, Devons, and Holsteins.

Up to within ten years ago very little was done in the introduction of superior stock. Importations were made before this time, but were small in number and at long intervals of time; so much so that it made no decided impression upon the herds. Within recent years, however, the grazers have seen the importance of introducing new blood and grading up their stock. Large numbers of pure blooded stock are being introduced annually, which has already made a decided improvement and within a few years stock on most ranches should compare favorably with those of other countries.

Every herd of cattle has a residuum of old blood in it, cattle descended and bred from the old Spanish cattle landed here by Vancouver. One of the problems for the ranchman is the turning of this undesirable part of his herd into cash. The conformation of the stock with its slab sides and long legs is such that even when in good condition much of the weight is bone. The blood is hardy, but matures late. The stock is wild and often for this reason is badly bruised while going to market. The color of the stock is often yellow or black and tan, with occasionally a brindle hide. The market in Honolulu will not admit of the sale of a big lot of this stock at once, so each ranch has to try to work them off, often to the neighboring plantations or local market. This is being done by all intelligent ranchmen as fast as possible. It is upon this blood that most of the herds are built.

The 8242 head of cattle slaughtered in Honolulu between July, 1903, and July, 1904, averaged 445 pounds per

head. This includes cows as well as steers. Separate statistics are not available.

"Liver fluke" is still a scourge in certain localities. No cure is known for this disease among the ranchers. "Red water" is also prevalent in a few herds. The Territorial laws concerning quarantine against the diseases of animals appear to be insufficient. Until this matter is taken hold of by the Federal Bureau of Animal Industry and an inspector with full authority is stationed in this Territory there is a constant danger that diseases like "Texas fever" and "rinderpest" may slip in and decimate our herds.

The greatest pest on the ranches is the horn fly introduced some six or seven years ago with stock from the mainland. They bother cattle and horses day and night. On the latter they often cause sores on the backs even of brood mares which have never been handled. An unsuccessful attempt was made by our association in

the last-mentioned port there were shipped to Honolulu 809 head of cattle, none from Hilo, and 5,703 from the other ports on the islands (the Oahu-grown cattle are not figured in this account). Every one of these 5,703 head had to be roped, tied to a ship's boat, towed to a steamer, and hoisted aboard before making the trip across the channels to Honolulu. This is one of the difficulties of the live stock industry in Hawaii. Anyone can appreciate the fact that this method of sending to market can not compare with sending to market on the hoof or by train. It is doubtful, however, whether these conditions can be much improved.

DAIRYING.

Outside of the town and village centers dairying is carried on primarily for the advantage which is derived from taming and handling the young stock. Butter is made on most ranches, but, considering the number of cattle carried on the ranges, to a very small extent.



HAWAIIAN RANCH HOUSE.

1902 to import tumble bugs from Mexico to combat the pest, and it is hoped that Messrs. Koehle and Perkins, the entomologists who are now in the antipodes, may be able to send us some bug or insect to prey on the larvae and thus bring relief to the herds.

At the present time the Territory supplies all the beef consumed locally. As methods improve there is a probability that there will be an overproduction and new markets must be sought. Possibly they may be found in supplying the United States Army transports en route to Manila. It is believed, however, that one or two severe droughts such as we have had in the past will probably stop overproduction.

Honolulu is the chief market for beef and mutton in the Territory. Hawaii has but three harbors in which the steamers of the interisland fleet can tie up to the wharf—Honolulu, on the island of Oahu; Hilo, on the island of Hawaii; and Kaunakakai on the island of Molokai.

From July 1, 1903, to July 1, 1904, from

WATER.

Water is being intelligently developed on each ranch and the multiplication of well-watered paddocks is the goal toward which every ranch is working.

It is realized that an improvement in the herd and greater weights on the butcher's account sales are dependent upon the carrying out of the above ideas.

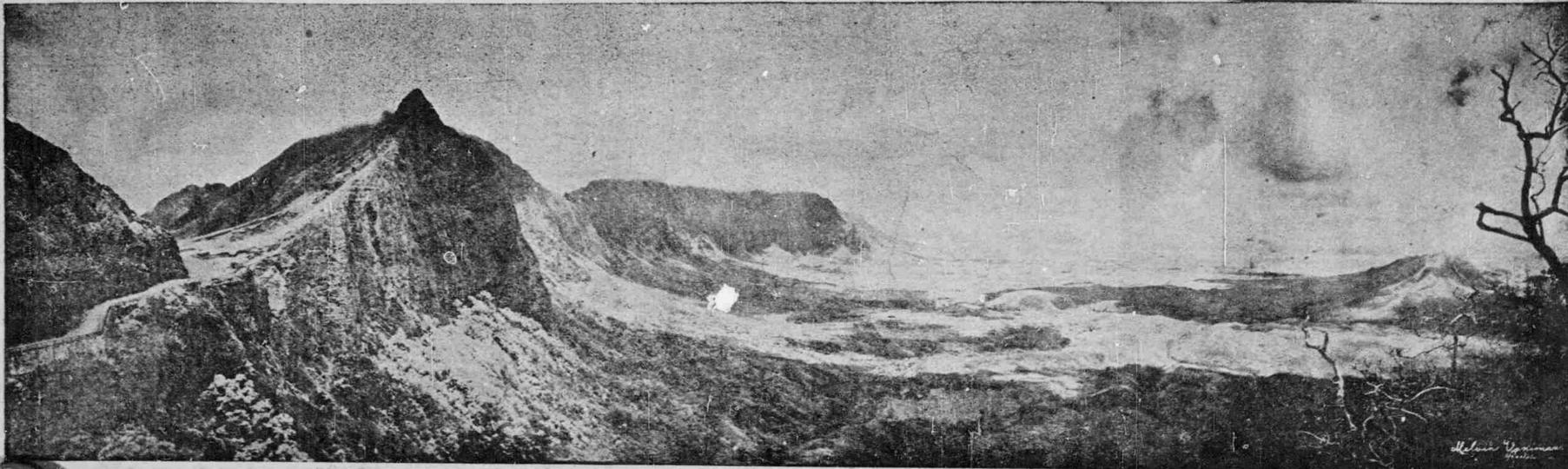
CENSUS.

No census of the live stock industry has yet been taken and it is difficult to make estimates of value. About the only accurate thing is the number of animals slaughtered in Honolulu. In addition to this each ranch slaughters locally or sells to the neighboring sugar plantations. Without trying to be more than approximate, I estimate Hawaii's herd as follows: Cattle, 140,000; sheep, 95,000.

SHEEP.

Our sheep are inferior in blood and conformation to our horses and cattle.

(Continued on page 7.)



PANORAMA FROM NUUANU PALI.