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## Hawai'i's Forgotten Crop: Corn on Maui, 1851–1951

IN 1892, the *Hawaiian Gazette* found it “interesting to note the presence of a wee bit of machinery on Maui different from the omnipresent plant that crushes the stalk of the sugar cane.” This new business, which the paper called the “Kula corn mill,” highlights a commodity that enjoyed a century of success in Hawai‘i.<sup>1</sup> While Hawai‘i’s dominant crops, namely sugar, pineapple, and coffee are well documented in Hawai‘i’s history, as is ranching, less attention has been focused on products that did not prosper in the long term, including wheat and corn. The discovery of the existence of the Makawao Corn Mill Company, which prompted much of the following research, highlights a little-known facet of Hawai‘i’s agricultural history. Corn production and the operation of corn mills on Maui demonstrate that the Hawaiian Islands were once more self-sufficient and less dependent on importing supplies from the U.S. Mainland. Corn was cultivated for both human and animal consumption. “Indian corn,” as the grain was historically known, was eaten as a vegetable, but was also processed into

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cornmeal and flour. As animal feed, the grain was labeled as “field” corn, which was often sold “cracked” or “shelled.” Although corn had proven a valuable commodity by the 1890s, by the 1930s production was declining, mostly due to environmental problems and the more lucrative crop of pineapple.

#### EARLY CORN TRIALS IN HAWAI‘I

Corn was grown in the islands as early as 1826, when U.S. Navy Lieutenant Hiram Paulding reported that John Wilkinson, a British subject, was trying to cultivate and process sugar cane. In addition to planting cane as a commercial venture, Wilkinson was growing corn and other crops for his own use.<sup>2</sup>

The transactions of the Royal Hawaiian Agricultural Society (RHAS) describe early efforts to raise corn in the islands. The RHAS, organized in 1850, promoted farming as a means to “civilize” a nation, noting that successful agriculture was the “chief pillar in the temple of national prosperity” since it clothed and fed a nation. It aimed to bring planters together to discuss and overcome the difficulties of crop cultivation, as well as the problems of labor, capital, and markets. In addition to considering past problems, the RHAS looked to the future. Organized in the wake of the Great Mahele, the society recognized that changes in Hawai‘i’s land tenure system provided new agricultural business opportunities. The growing influence of the United States on the Pacific Coast of America also opened the possibility of new trading prospects.<sup>3</sup>

In an address to the RHAS at its second annual meeting in 1851, Luther Severance noted that Indian corn was being grown in the Hawaiian Islands, but that young crops were damaged by worms. Nevertheless, he believed corn would benefit the native diet, even though an acre of taro would feed more people than any other crop. In his opinion, “an occasional corn cake, made of good sweet fresh Indian meal, would be an agreeable change and promote health. If every owner of land would cultivate an acre of corn, he would keep his pigs and poultry in better condition [and] give greater variety to his own food.” The RHAS Committee on Seasons acknowledged the problems of caterpillars and grubs, but also emphasized other challenges for growing corn in the Hawaiian Islands. The report explained how the

success of corn depended on seasonal rains and windward or leeward locations. As such, maturation and harvest throughout the islands were highly variable. Committee chairman J. S. Emerson observed that corn did well in Makawao and Hāmākua on East Maui, if planted in late March or April, owing to the damp and cloudy conditions. On the other side of Haleakalā, however, in Kaupō, corn had to be planted two months earlier or it would not mature properly. A list of exports for the year showed five barrels of corn were shipped from Lahaina. Corn was not noted for other islands, although the port of Kawaihae statistics were not included.<sup>4</sup>

In 1852 J. S. Green, chairman of the RHAS Committee on Wheat, Corn, Oats, and Other Grains, emphasized that the commonly held opinion that cereal grains could not be grown in Hawai‘i was erroneous. He instead noted that as early as 1835, a Hawaiian living in Kula, Maui had grown “fine looking wheat.” When Green moved to nearby Makawao in 1843, he experimented with wheat and produced 27 bushels of “excellent quality.” His success was repeated by others, but he noted that corn proved to be a challenge. Green pointed out that corn was difficult to grow due to the unpredictable nature of the climate and the timing of sowing seed. The crop was also “ravaged” by the *pelua* (worm). Green “despaired” of growing the grain, lamenting that the “several bushels” he grew in 1849 allowed him to fatten the “largest crop of weevils” he had ever seen in Makawao. Despite his troubles, he reminisced, “for many years I obtained enough corn for our table, boiled or fitted up into that most delectable of dishes, succotash; and I have sometimes cured enough for hasty-puddings, johnny cakes, and brown bread.” Elsewhere, Mr. Rice on O‘ahu had raised fine corn.<sup>5</sup>

The 1853 RHAS annual meeting transactions show there was substantial discussion on the prospects of raising corn in Hawai‘i. These reports, however, may have been overly optimistic and demonstrate that the crop’s success continued to be variable, mostly due to differences in localities and weather. Several reports were quite positive on corn’s prospects. The RHAS president, William L. Lee, noted that the high price of flour and other cereals had spurred East Maui farmers to go “to work in earnest, with the determination to raise sufficient wheat to supply our home consumption, which is no small item in our bill of expenses.” He also noted that corn production had increased

and found a ready market in Honolulu, where it sold for three to five cents per pound. Lee cautioned, however, that the harvest remained very erratic, and the timing for sowing seeds was still being investigated. Progress was made, however, with farmers discovering that the planting season on O'ahu was from November to March, while on Kaua'i, the crop would not grow if sown during the winter months. Member John Montgomery was confident that Hawai'i's corn was "equal in quality to any part of the world," noting that islanders spent a tremendous amount of money each year on imported foodstuffs, which could be greatly reduced if commodities like corn were raised in Hawai'i. Chairman of the Committee on Grains, William H. Rice, optimistically emphasized that the successful experimentation with corn proved that there was "little doubt" that it would "flourish in every district on every Island in the group" if farmers ascertained the best season for planting, which could only be done by trials in individual localities. William Reynolds submitted a detailed report of his corn tests on Kaua'i, confirming Rice's statement that only experimentation would prove the suitability of this crop in the islands. Reynolds' report was more realistic, noting that his trial was a "brief and imperfect experience" that did not prove that corn was a *reliable* crop. His failures were primarily due to insects and weather, especially storms. Reynolds recommended additional experiments, especially in terms of the proper season for planting. He concluded by remarking that success would be fruitless unless there was a ready market for corn in Honolulu. The RHAS members' optimism regarding corn's potential was demonstrated by the establishment of a standing committee on "Indian corn" for the next year, rather than continuing to discuss the crop in the "grains" committee.<sup>6</sup>

The RHAS confidence in corn's potential paid off by the mid-1860s. The *Pacific Commercial Advertiser's* "Annual Review of the Commerce and Agriculture of the Hawaiian Islands for 1865" reported that corn was a profitable commodity, with 29,853 pounds of the product exported from the Hawaiian Islands.<sup>7</sup>

#### THE MAKAWAO CORN MILL COMPANY

By the mid-19th century corn production had proven successful on Maui. While traveling through East Maui in 1854 George Bates

declared, "Indian corn crops grown in Makawao attained great perfection." In 1889 the Kula area was described as "very desirable for raising corn."<sup>8</sup>

In January 1892 Louis von Tempsky decided that corn could be a profitable commodity and founded the Makawao Corn Mill Company. His partners in this enterprise were his brother, Randall, and Llewellyn F. Hughes. Von Tempsky's new company operated on two acres of land in Makawao known as the "David Crowningburg pasture,"

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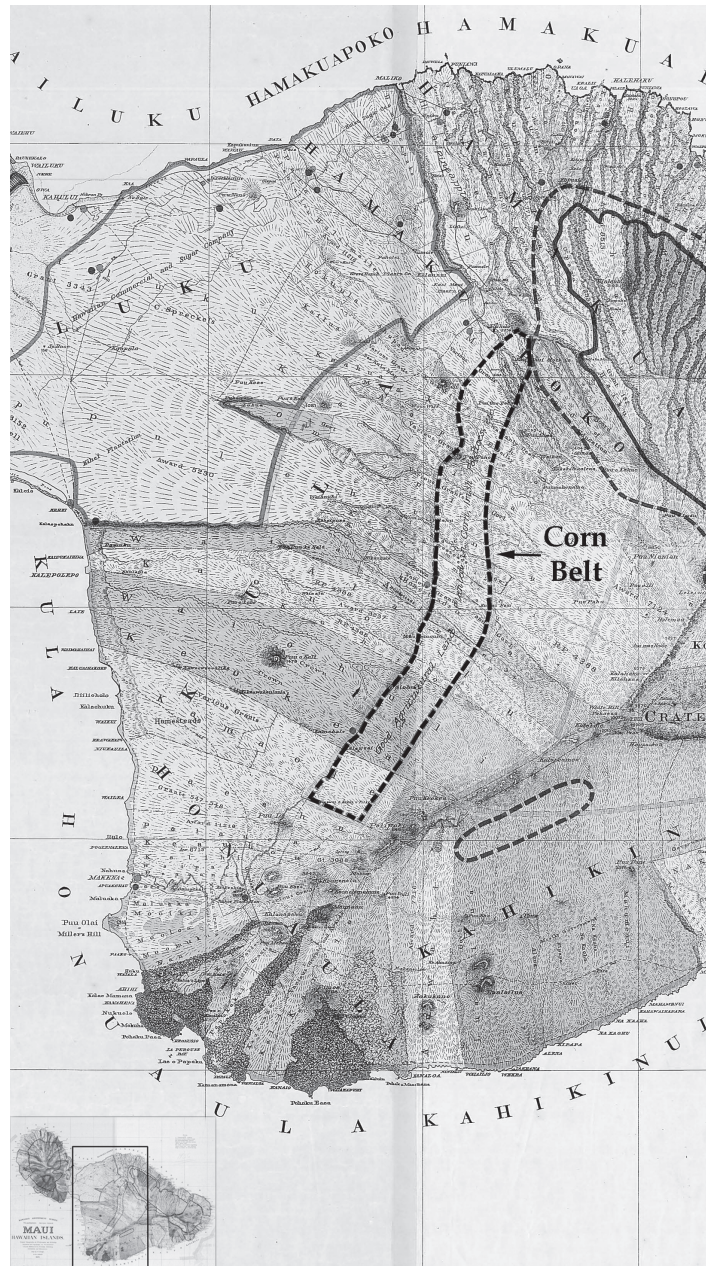
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The Union Feed Company of Honolulu, featured in the advertising section of the 1888 Polk City Directory, may have been selling Maui-grown corn and cracked corn. Hamilton Library, University of Hawai'i.





This 1903 map of Maui illustrates the wide belt across Haleakalā's leeward slope, which was labeled as "good agricultural land planted in corn, Irish potatoes, etc." This location contributed to corn's demise, as there was no water system to provide irrigation during the early 20th century. John Donn prepared this update of an 1885 Hawaiian Government Survey map. Land Survey Division, Department of Accounting and General Services, State of Hawai'i.

which was leased from the Haleakala Ranch Company. The company granted von Tempsky permission to establish a corn-grinding business on the property and provided surplus water privileges that would allow him to run a 12- to 15-horsepower engine, which would presumably drive his corn mill. Von Tempsky was also allowed pasture privileges for 30 head of oxen, which were to be used to cart material (probably corn) to and from the premises. For the right to start his corn mill operations, von Tempsky was to pay Haleakala Ranch \$125 annually for a period of ten years.<sup>9</sup>

The *Hawaiian Gazette* disclosed that von Tempsky's corn mill was in operation and grinding out "first-class cracked corn" in February 1892. In an era when plantation agriculture depended on draft animals rather than machines, the newspaper optimistically expected corn to be a lucrative product in the Hawaiian Islands. It noted that corn was a superior feed for stock, being better than ground barley at about half the price. Maui plantations reportedly placed large orders for von Tempsky's corn, which sold for \$30 per ton. Approximately 4,000 acres of corn were being grown in Kula at the time with expectations that nearly the entire crop could be sold on Maui. The newspaper predicted that von Tempsky's corn mill would be a Makawao landmark, noting that a whistle was to be installed, "whose clarion notes will wake the echoes of pastoral Makawao several times a day."<sup>10</sup>

The Makawao Corn Mill Company appeared to be successful by the end of its first year of operation, with much of its business generated from an agreement with the Haleakala Ranch Company. The ranch rented land to farmers, who paid their rent in corn. Von Tempsky and his partners, Randall von Tempsky and Llewellyn Hughes, agreed to purchase all of Haleakala Ranch's corn and pay the company to cart it to the mill. In addition, the mill was required to grind the ranch's corn before it could accept grain from other customers. This 1892–1893 agreement was based on producing an estimated 300 tons of corn. Other corn mill customers were Paia Plantation and von Tempsky's Erewhon Cattle Station. It seems unlikely that von Tempsky was involved with the actual growing of corn, but he purchased corn from farmers in Ōma'opio and Pūlehunui. Other unspecified areas, probably also in the Kula District, were also under corn cultivation.<sup>11</sup>

*Husted's Directory of Honolulu and Hawaiian Territory* for 1900–1901 listed the Haleakala Ranch Company as the proprietor of the "Haleakala Corn Mill" in Makawao. The corn mill was managed by Louis von

Tempsky, who had also been named manager of the Haleakala Ranch Company in 1898.<sup>12</sup> It is not clear when the business became part of Haleakala Ranch. From 1890 to 1898, Haleakala Ranch planted between 500 and 1000 acres of land in corn, and the company mill produced about 3,000 pounds of shelled corn.<sup>13</sup> No documents have been located to determine when the Makawao Corn Mill Company ceased operations.

#### CORN PRODUCTION ON MAUI, 1900–1916

During the early 1900s, Hawai'i had a good market and excellent prices for field corn, with local production unable to keep up with demand. Although corn crops were plagued by a variety of "serious obstacles," including pests and high winds, a number of farmers and ranchers were using modern machinery and planting new crop varieties to cultivate corn on a larger scale.<sup>14</sup> By 1909, 3,200 acres of corn were planted in Hawai'i. On Maui, Kula had become known as a "corn-raising region." While the grain was most successfully grown at higher elevations (up to 5,000 feet above sea level), a major factor limiting corn production throughout the islands was rainfall. The Kula area was noted for producing only moderate yields, most likely due to its drier climate.<sup>15</sup> Kula's production was so poor in 1912 that farmers were advised to grow onions until it was possible to successfully irrigate corn.<sup>16</sup>

Maui Agricultural Company (MACo) annual reports from the early 1900s through the 1920s shed light on the value of corn to Hawai'i agriculture. MACo's primary business was its Pā'ia sugar plantation, but it also maintained a diverse portfolio of related enterprises. One of these concerns was its ranch, which was in the Ha'ikū area on at least 1,000 acres of land. Although the area had ample rainfall, this acreage was considered "absolutely unproductive" because it was plagued by noxious growth. Since land covered in weeds did not produce profit, MACo managers experimented with a variety of commodities over the decades in an attempt to make the land useful. Early on, the goal was to provide all the beef needed for the plantation employees and butcher shops. Perhaps more importantly, the ranch provided the draft animals that were crucial to a sugar industry not yet mechanized in its field operations. In 1907 the ranch reported that



it had supplied not only all of the plantation's beef needs, but it also shipped 45 head of stock to Honolulu for sale. The fine profit-making potential from the cattle probably led to the company's decision to grow corn. By 1909 corn had proven lucrative, and MACo had 140 acres in the crop, which produced "considerable corn" for stock feed. The following year the grain was also supplying the ranch piggery. To boost supply and offset the cost of cultivation at MACo's rubber plantation in Nāhiku, corn was also planted between rows of rubber trees. MACo's annual report noted that managers hoped their experimental efforts with various crops would also be of value to homesteaders who might choose to farm in East Maui. Despite the early success of supplying all the plantation's beef needs, the plantation still relied on buying "outside" meat. In 1913 the annual report noted that the ranch kept making a "good showing" and MACo was purchasing less beef than usual. Corn continued to "do well."<sup>17</sup>

A 1913 *Maui News* article recognized the value of Maui's corn cultivation as it informed the public about an excellent "corn exhibit." This successful "corn show," according to the newspaper, marked the start of an important branch of agriculture that had the potential to be as successful as pineapple production. College of Hawaii Professor Frederick G. Krauss confirmed this, noting that corn produced high yields in a short growing time. Krauss pointed out that two corn crops could be produced in the same period of time as it took one pineapple crop to reach maturity. He supported the production of corn as a promising adjunct crop in Hawai'i agriculture. Furthermore, Krauss noted that corn had considerable value as a means to maintain soil productivity, noting that diversification, not commercial fertilizer, was recognized as the preferred method of increasing or conserving soil fertility.<sup>18</sup>

Despite Krauss' unequivocal support of corn as a standard crop in Hawai'i, the grain had problems competing with the more lucrative crop of pineapple. In 1904 about 15 acres of pineapple were planted on MACo ranch land, with plans for an additional ten acres. Pineapple was one of MACo's numerous experimental crops and proved so successful that it eventually became the dominant product on the company's Ha'ikū land. Prior to the pineapple trials, MACo had a 200-acre sisal plantation in Ha'ikū. Weeds were a constant problem in raising sisal, but the growers quickly learned that pineapple thrived

in the overgrown conditions typical of the area. Although MACo's annual report did not indicate whether additional acreage had been planted for pineapple production, in 1909 it announced that 376 tons of the fruit were harvested and sold, probably to the Haiku Fruit & Packing Company, for \$6,500. The following year, 500 tons were reaped from the fields. In 1915 the ranch began what was apparently a new project to clear pastures of noxious growth so that foreign grasses could be planted. As pineapple continued to be profitable and grasses were planted in pastures, less emphasis may have been placed on corn production, and the crop was not noted in most of the later annual reports. It seems likely that the profitability of pineapple resulted in fewer acres devoted to ranching activities such as stock and corn production.<sup>19</sup>

#### CORN AS A PATRIOTIC CROP TO BOOST THE WAR EFFORT

Although corn appeared to be faltering as a profitable commodity by 1916, the crop made a conspicuous comeback on the Hawai'i market when the United States entered World War I in 1917. Nearly 9,000 acres were planted in corn by 1918, which helped reduce the importation of wheat flour and stock feed to Hawai'i. Food conservation, primarily of wheat, meat, and sugar, became urgent during the winter of 1917–1918 when the Allied food situation became critical. Consequently U.S. Food Commissioner Herbert Hoover urged all Americans to greatly restrict their consumption of these foodstuffs.<sup>20</sup>

The Territorial Food Commission requested that Hawai'i residents observe a "wheatless" day on Wednesdays, which followed the U.S. Food Administration's directive to the rest of the American population. Historian Ralph Kuykendall maintained that the wheatless days were designed to reduce the importation of wheat to Hawai'i, but moreover to increase consumption of cornmeal, "which was being manufactured on Maui and was just then coming on the market in considerable quantity." He claimed that this experiment was so successful that a 60-day embargo was placed on wheat shipments to Maui and Kaua'i as those islands had such a large stock of flour. The Federal Food Administrator went a step further, suggesting to Hoover that he reduce shipments of wheat flour to Hawai'i by 25 to 30 percent to ensure that island-grown cornmeal would be consumed locally.<sup>21</sup>

Several *Maui News* articles confirm Kuykendall's assessment that "wheatless Wednesdays" were quite successful and that cornmeal was a popular substitute and patriotic response. The Lahaina Store announced that it had reduced its wheat sales by such a large margin that it might not stock any wheat products in the future. By mid-1918, Maui and Kaua'i had such a surplus of white flour on store shelves that officials considered shipping the flour back to the Mainland before it spoiled. The food administration agency praised Maui's Portuguese women for their patriotism and efforts in using wheat substitutes, although it was not specified which grain they used. The *Maui News* applauded the women, emphasizing their skill and patriotic spirit in a difficult situation: "Bread has always played a larger part in the Portuguese menu than any other thing, and their system of making and baking made it particularly hard to use substitutes."<sup>22</sup>

The 9,000 acres in corn during the war also reflected the plantations' response to the call to aid the war effort. The 1917 MACo annual report as well as a *Maui News* article underscore where much of Kuykendall's "considerable quantities" of cornmeal were being produced. The Maui County agricultural agent pointed out that the fine weather conditions were good for corn and that both Grove Ranch and Paia Plantation were expected to produce good crops. MACo's report noted that the company had "quite an acreage planted and to be planted in corn, sweet potatoes, cassava and fodder crops." The report also noted that MACo had ordered a drying and grinding plant to process flour and cornmeal for human consumption, as well as most of the stock feed needed for its work animals. The company was supplying its own stores as well as other stores on Maui with cornmeal, while also shipping "considerable quantities" to Honolulu. During the last half of 1918, the MACo ranch reported that it was able to produce all the feed needed for its working livestock at the MACo mill, mostly from "home grown crops." The ranch produced stock feed from a mixture of alfalfa, pigeon pea meal, corn, algarroba, peanut meal, oil cake, and molasses, "with good results."<sup>23</sup>

While Maui was successful in its patriotic efforts, the war also imposed serious constraints on production and marketing. After the "wheatless days" were enacted on Maui, the demand for corn increased, and prices skyrocketed. A newspaper article blamed the food administration for not keeping the prices of alternative flours as low as the price

of wheat flour, especially since substitutes were milled from “supposedly cheaper grains.” Egg producer Edwin C. Moore complained that his corn costs were exorbitant, having risen from \$2.00 to \$3.60 per bag for “island” corn, which was higher than imported barley had been before freight increases were imposed.<sup>24</sup> Alfred Carter of the Parker Ranch on Hawai‘i confirmed that corn prices were getting out of hand. According to Carter, corn sold for \$34 per ton before the war, but by January 1918, the price had skyrocketed to \$75 per ton, which he claimed, was “far too high.” MACo reported that its operations were being seriously impacted by the war, with higher costs on all commodities, difficulties in shipping, and labor shortages. A *Maui News* editorial seemed to be scolding those who complained when it reaffirmed the writer’s commitment to meatless and wheatless days, noting that it wasn’t too much to ask to forego wheat and meat for one day each week to help save shipping space for the Allies.<sup>25</sup>

Although the Territory of Hawaii was successful in aiding the war effort by producing substitute grains, the rosy accounts in the *Maui News* did not tell the entire story. Territorial Food Commission records described the problems encountered in making Hawai‘i more dependent on corn. In a letter addressed to Herbert Hoover, Hawai‘i Governor Lucius Pinkham explained that growing the corn was the easy part. Difficulties arose with Hawai‘i’s climate, which made it impossible to cure corn without a means of artificial drying. Pinkham explained that corn was quickly attacked by insects and that the only way to profit from the crop was to immediately feed it to livestock. In addition, “suitable corn climate” was at higher altitude, which made transportation to shipping ports expensive, especially for small farmers. This problem restricted the market and could easily lead to oversupply. To overcome the difficulties associated with producing corn, Pinkham had earlier requested assistance from the College of Hawaii, suggesting the development of fumigation, disinfecting, and drying techniques. He pointed out that dried corn was preferred because drying the grain also compressed it, thus helping to solve storage problems. Despite these complications, Pinkham reported that the Parker Ranch was growing 2,100 acres of corn and also purchasing the crop from homesteaders. He also praised Hawai‘i’s success in being self sufficient in meat, with fine prospects for furnishing potatoes and vegetables as well. Corn production continued to increase.

By 1918 Parker Ranch had 4,000 acres in corn and planned to install a mill. On Maui, the Baldwins, who “controlled the [island’s] numerous sugar interests” (including MACo), were considering purchasing a dryer with the intent of shipping their corn to Honolulu for milling. In any case, the Territorial Food Commission expected that Hawai‘i would produce too much cornmeal. Commissioners observed that while the excess corn could be fed to cattle, Hawai‘i had good pasture land, which made the corn unnecessary.<sup>26</sup>

#### CORN FAILS; PINEAPPLE SUCCEEDS

Unusually high prices for corn continued during a 1919–1920 post-war boom, and farmers increased Hawai‘i’s corn plantings to 10,000 acres. At that point, only sugar and pineapple surpassed corn in the number of acres in cultivation. After 1920 production quickly declined to less than 1,900 acres.<sup>27</sup> On Maui corn farming was in serious trouble by the end of the 1920s. Bad agricultural practices had stripped the Kula area of topsoil, which ruined what old-timers had called the “richest corn acreage in Hawaii.”<sup>28</sup> The decline in Maui corn production was also due to the increase in pineapple production and profitability.

MACo annual reports for the early 1920s highlighted how ranching operations, which included corn, were being scaled back. The Ha‘ikū feed mill closed in 1922, and its farming tools, implements, trucks, and other equipment were sold or turned over to the plantation. “The feed requirements of the Ranch and pineapple growers,” according to MACo’s 1922 annual report, “are now met by the plantation feed mill at Pā‘ia at a considerable saving in cost to all concerned.” The following year the company reported that livestock would become a “diminishing factor as lands are withdrawn for the growing of pineapples.” In 1925 the Haiku Corn Mill was “written off” at a cost of \$6,340. MACo sold its dairy to Haleakala Ranch in 1926 and reported that much of the beef for its plantation butcher shop was purchased from other sources. The dairy sale and reduced ranch production were attributed to the dry weather and a reduction in pasture area to increase pineapple cultivation. In 1927, MACo announced that its Ha‘ikū land would eventually be dedicated to growing pineapple.<sup>29</sup>

Haleakala Ranch appeared to have eliminated its corn production



prior to 1922. That year a *Maui News* article noted that the company grew pigeon peas, raised 3,500 head of cattle, and had 470 acres in pineapple and grasses. There was no mention of growing corn or its Makawao corn mill. During the 1920s the Haleakala Ranch Company also expanded its pineapple production after purchasing an additional 1,100 acres of land on the Kula side of Makawao. This newly planted pineapple acreage produced “fine crops.” The Haleakala Ranch Company’s continued success in growing pineapple led it to separate its pineapple department from the ranch in 1929 and incorporate the Haleakala Pineapple Company.<sup>30</sup>

By the 1950s, 625 acres of corn were cultivated in Hawai‘i, of that, 312 by the Parker Ranch. On Maui 218 acres of field corn were planted in 1951.<sup>31</sup> Although corn production in Hawai‘i had appeared to be particularly promising, by the late 20th century, corn fields were few and far between. Instead of Kula being known as “corn country,” Upcountry Maui became associated with ranching, *paniolo* (cowboys), and pineapple. Likewise, Parker Ranch became associated with cattle and *paniolo*.

Most Hawai‘i residents would probably be astonished to learn that more than 4,600 acres of land in Hawai‘i were cultivated in seed corn in 2008. “Seed” corn is the parent line of hybrid corn used to produce commercial quantities of seeds for new and/or improved crops, including seeds that produce corn oil, corn syrup, cornstarch, and animal feed. Seed companies came to the islands during the 1960s, attracted by the year-round growing season, which not only contributes to increased production, but also to research potential. By the early years of the 21st century, the demise of sugar and pineapple opened up land for cultivation by agri-business seed giants such as Pioneer Hi-Bred, Monsanto, and Sygenta. In addition to growing seed corn, these companies (and others) also research new “bio-tech” crop varieties. Seed cornfields are located on Maui, Moloka‘i, O‘ahu, and Kaua‘i. In 2006 the dollar value of *all* Hawai‘i seed crops (corn, sunflower, soybeans, and cotton) overtook pineapple as the state’s number one agricultural commodity. Seed corn dominated Hawai‘i’s seed crop production, both in terms of acreage (95 percent) and monetary value (96.3 percent).<sup>32</sup>

Although not nearly as valuable as seed corn for export, but tastier and perhaps more important to the local consumer, is Hawai‘i’s

small-scale, locally grown sweet corn, a favorite item at local markets. According to the United States Department of Agriculture, sweet corn is grown on O‘ahu, Maui, Kaua‘i, and the Big Island, with farmers harvesting more than 800 acres of the crop in 2003. Unfavorable weather and market conditions led to a decline in the crop’s harvest, with only 350 acres produced in 2006.<sup>33</sup>

Corn in 2006 does not contribute to Hawai‘i’s self-sufficiency as it once did, but the seed-corn industry pumps \$144 million into Hawai‘i’s economy, including \$7 million in taxes. It also provides jobs, some of which went to displaced agricultural workers.<sup>34</sup> With the high demand for corn and biofuels, it is likely that the crop will continue to play a significant role in Hawai‘i’s agriculture and economy. Based on Hawai‘i’s success in growing corn for a century, 1851 to 1951, it should come as no surprise that growing seed corn could be a profitable business. It is unfortunate that the production of “Indian” corn has been largely forgotten, not just in Maui’s, but also Hawai‘i’s, agricultural history. Corn was a crop that helped Hawai‘i achieve a certain level of self sufficiency, build the ranching and agricultural industries, and yes, even contribute to the U.S. effort in World War I.

#### NOTES

- <sup>1</sup> “The Kula Corn Mill,” HG, 8 March 1892, 9. I would like to thank Barbara Long, who first brought to my attention the existence of the Makawao Corn Mill Company, and Camille Lyons of the Haleakala Ranch Company. The Maui Land & Pineapple Company sponsored a portion of this research as part of an Environmental Impact Statement for the proposed Upcountry Town Center.
- <sup>2</sup> Hiram Paulding, *Journal of a Cruise of the United States Schooner Dolphin, Among the Islands of the Pacific Ocean; and a Visit to the Mulgrave Islands in Pursuit of the Mutineers of the Whale Ship Globe* (New York: G. & C. & H. Carvill, 1831) 221.
- <sup>3</sup> Ralph S. Kuykendall, *The Hawaiian Kingdom, 1778–1854, Foundation and Transformation* (Honolulu: UP of Hawaii, 1931, 1947) 327–330.
- <sup>4</sup> RHAS, *Transactions*, vol. I, no. 2, 1851, 32–33, 86–87, 94.
- <sup>5</sup> RHAS, *Transactions*, vol. I, no. 3, 1852, 99, 102.
- <sup>6</sup> RHAS, *Transactions*, vol. I, no. 4, 1853, 5–6, 33–34, 101–104, 165.
- <sup>7</sup> “Annual Review of the Commerce and Agriculture of the Hawaiian Islands for 1865,” *PCA*, 2 Feb. 1866.
- <sup>8</sup> George Washington Bates, *Sandwich Island Notes By a Haole* (New York: Harper and Bros., 1854) 317–318; “History from our Files—60 Years Ago—1889,” *HA*, 8 July 1949, 12.
- <sup>9</sup> Lease Haleakala Ranch Company to Louis von Tempsky, 1 January 1892, Hale-

akala Ranch Company records. Hereinafter HRC. The corn mill may have been located near the Makawao Fire Station on Makawao Avenue between “new” Haleakalā Highway and Old Haleakalā Highway. This area is the site of the former “Corn Mill Camp,” which was established by Haleakala Ranch in the early 1900s.

- <sup>10</sup> “The Kula Corn Mill,” *HG*, 23 Feb. 1892, 9; *HG*, 8 Mar. 1892, 10.
- <sup>11</sup> Agreement of Sale for Corn Crop between Haleakala Ranch Company and Makawao Corn Mill Company, 1 Oct. 1892; Paia Plantation ledger sheet, Nov. 1892, *HRC*.
- <sup>12</sup> *Husted’s 1900–1901 Directory of Honolulu and Hawaiian Territory* (Honolulu: Polk-Husted Directory Company, 1912) 621, 659; John William Siddall, ed., *Men of Hawaii*, vol. II (Honolulu: Star-Bulletin Ltd., 1921) 395.
- <sup>13</sup> “Ranch Life on Slopes of Giant Haleakala,” *Maui News*, 4 Dec. 1926, sec. 6, 3.
- <sup>14</sup> Jared G. Smith, *Agriculture in Hawaii* (Honolulu: Evening Bulletin Print, 1908) 35.
- <sup>15</sup> Perry F. Philipp, *Diversified Agriculture of Hawaii, an Economist’s View of its History, Present Status, and Future Prospects* (Honolulu: U of Hawaii P, 1953) 127–128; Henry P. Judd, “Riding Round East Maui,” *PP*, Aug. 1938.
- <sup>16</sup> *Maui News*, 21 Sept. 1912, 1.
- <sup>17</sup> *Annual Report of the Maui Agricultural Company*, 1904, 5; 1905, 4; 1907, 5; 1909, 4; 1910, 5–6; 1913, 4–5. Hereinafter cited as *MACo Annual Report*.
- <sup>18</sup> “News from Up Country,” *Maui News*, 12 Aug. 1911, 2.
- <sup>19</sup> *MACo Annual Reports*, 1904, 5; 1905, 4; 1909, 5; 1910, 5; 1911, 5; 1915, 5.
- <sup>20</sup> Ralph S. Kuykendall, *Hawaii in the World War* (Honolulu: The Historical Commission, 1928) 343, 359.
- <sup>21</sup> Kuykendall, *Hawaii in the World War*, 358–361.
- <sup>22</sup> “County Agent’s Weekly Report,” *Maui News*, 17 May 1917, 3; “Ban on White Flour Results in Surplus,” *Maui News*, 14 June 1918, 8; “Portuguese Are Saving Wheat,” *Maui News*, 5 July 1918, 4.
- <sup>23</sup> “County Agent’s Weekly Report,” *Maui News*, 17 May 1917, 3; *MACo Annual Report*, 1917, 4.
- <sup>24</sup> “Portuguese are Saving Wheat,” *Maui News*, 5 July 1918, 4; “Why Eggs are so High,” *Maui News*, 11 Jan. 1918, 7.
- <sup>25</sup> Territorial Food Commission Minutes, Meeting of January 19, 1918, AH; *MACo Annual Report*, 1918, 2; “As to ‘Meatless’ Days,” *Maui News*, 11 Jan. 1918, 4.
- <sup>26</sup> Lucius Pinkham, letter to United States Food Commissioner Herbert Hoover, October 15, 1917; Lucius Pinkham, letter to Arthur L. Dean, College of Hawaii, 3 Nov 3, 1916; Governor Pinkham, letter to Secretary of the Interior, U.S. Food Administration, 8 Aug 8 1918, AH.
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- <sup>28</sup> “Sheet Erosion Stealing Away Rich Kula Soil,” *Maui News*, 12 Mar. 1930.
- <sup>29</sup> *MACo Annual Reports*, 1922, 6, 8; 1923 5–6; 1925, 11; 1926, 6; 1927, 5.
- <sup>30</sup> *Maui News*, 10 Oct. 1922, sect. 4, 2; William A. Baldwin, *A Brief History and Commentary on the Pineapple Industry of Maui, Hawaii* (Wailuku, HI: Maui Publishing Co., 1938) 20, 24.

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- <sup>33</sup> *Statistics of Hawaii Agriculture 2006*, 73–74, 123; Mark Hudson, Director, Hawaii Field Office, USDA National Agricultural Statistics Service, e-mail correspondence with author, June 9, 2008.
- <sup>34</sup> “Biotech Now Second Only to Pineapple,” *Pacific Business News*, 29 Jan. 2007.