

CHamoru Employees of the Pre-War Guam Agricultural Experiment Station

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Introduction

The United States acquired the island of Guam, as well as Puerto Rico and the Philippines, through the Treaty of Paris of 1898, which ended the Spanish-American War. Guam, which has an area of around 225 square miles, had a resident population of 9,676 in 1901, with CHamorus accounting for all but a small number (Carano & Sanchez, 1964). CHamorus, whose ancestors had lived on Guam for centuries, owed allegiance to the United States but would not be granted U.S. citizenship until the passage of the Guam Organic Act of 1950. In the pre-World War II (pre-War) era, a series of twenty-four U.S. Naval officers governed the island, having complete executive, legislative, and judicial authority (Carano & Sanchez, 1964).

Pre-War Guam was an agricultural society, and nearly all families maintained a farm (referred to locally as a “ranch”). However, from the beginning of American rule, the Naval Government lamented what they considered the primitive and inefficient nature of local agricultural practices. The common farming implements were the machete and a type of hoe known as the fosiño, with the carabao being the primary draft animal. Plows were used little except for rice production (Oakley, 1944; L. Thompson, 1947). Spanish officials required the people to live in a village, resulting in regular commutes to ranches, and this pattern had become part of the CHamoru way of life. There was a “lack of specialization and ... lack of concern for earning money in favor of subsistence farming” (Underwood, 1987, pp. 71–72). Modernization of Guam’s agriculture was a top priority so that the island would have a steady food supply not only

to meet the needs of local residents but also the needs of Navy personnel (Hattori, 2014; Santos, 2018).

The Naval Government sought the assistance of the United States Department of Agriculture (USDA), and from 1909 to 1932 the department operated the Guam Agricultural Experiment Station (GAES). During the pre-War era, the USDA and the Post Office were the primary representatives of the federal government on the island outside of the Navy structure (Bradley, 1930; Smith, 1918). Elyssa Juline Santos (2018) wrote a thesis entitled *“Practicing Economy”: Chamorro Agency and U.S. Colonial Agricultural Projects, 1898-1941*, which includes an examination of the station’s role in the pre-War administration of the island. This current study focuses on an area not covered by Santos by providing an overview of Chamoru employees of the GAES and their contribution to the station and its successor.

Establishment of the Station

Lt. Vincedon L. Cottman wrote a report for the Secretary of the Navy in early 1899 with recommendations for Guam, including the establishment of schools that would “teach as far as applicable to a primitive people the arts and sciences which would be beneficial and instructive to them and enable them to raise better crops, build better homes or boats, or raise more stock” (Beers, 1944, p. 15). He also suggested the establishment of “a government experimental agricultural station and stock farm in one” (p. 14). Secretary of Agriculture James A. Wilson believed that the USDA had an important role to play in America’s colonial endeavors, though Guam was not a priority at that time. He recommended in 1899 the establishment of experiment stations in “Hawaii, Porto Rico, and the Philippine Islands, so that they may be enabled to supply the United States with tropical products, our importation of which amount to over two hundred million dollars annually” (Wilson, 1899, p. x). In 1900, Congress authorized the department to establish experiment stations in Hawaii and Puerto Rico,

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though agricultural research in the Philippines operated under the island's colonial government (Overfield, 1990).

After a major typhoon struck Guam in November 1900, the slow recovery of agriculture led Governor Seaton Schroeder to bring the matter of an experiment station up with Wilson while in Washington, and in Governor George L. Dyer's annual report of 1904, he expressed his hope that the Navy "may be able to excite the interest of the Secretary of Agriculture" in establishing a station on the island (Beers, 1944; Dyer, 1904, p. 106). Though Wilson proposed the establishment of a station in Guam in his report for 1904, the station was not funded (Wilson, 1904). The following year, the Naval Government decided that the need for an experiment station was so great that it began its own (True, 1908). The station was led by Hermann L. V. Costenoble, a German botanist who lived on the island ("Four O'Clock," 1932). Costenoble began to "give the natives a practical example in the use of labor-saving tools and modern methods of cultivation and to stimulate them to increase the variety of their food products," and he also provided instruction to 29 students (Dyer, 1910, pp. 165–166). While pleased with the work of the station, the Naval Government felt that much more could be accomplished at a station run by the USDA. Alfred C. True, director of the USDA's Office of Experiment Station (OES), was confident of the benefits of such a station, noting in his annual report for 1907 that "with the introduction of other crops, some of which would require short seasons for their production, the repetition of former experiences could be avoided to a considerable degree" (True, 1908, pp. 405–406).

With the encouragement of the Secretary of the Navy, Wilson once again inserted a line for the station in his proposed budget for fiscal year 1909 (True, 1908). Congress approved Wilson's request, and Walter E. Evans, chief of the OES's Division of Insular Stations, went to Guam in the summer of 1908 to set up the station. He placed Costenoble in charge on an interim basis, and Costenoble arranged for the lease with an option to buy a tract of land from a local resident named Juan Torres (True, 1909, 1910). The USDA appointed John B. Thompson, who had previously worked with the Philippine Bureau of Agriculture, to lead the station and

purchased the 32-acre tract from Torres soon afterward (J. B. Thompson, 1911; True, 1910). An adjoining tract of 130 acres was added in the 1912 fiscal year, and an additional tract of 1,200 acres located in Cotot was purchased for use primarily as a stock farm in the 1914 fiscal year (J. B. Thompson, 1913, 1915).¹

There were eleven permanent employees serving over the life of the station, including station directors Thompson (1909-1914), Andrew C. Hartenbower (1914-1917), and Charles W. Edwards (1917-1932) (Edwards, 1918, 1933; J. B. Thompson, 1915). The longest serving was Peter Nelson, a New York native who had lived on Guam for nearly a decade before his appointment as station agent in 1911 (Briggs, 1918a; J. B. Thompson, 1912). He was among the community of American permanent residents on Guam that numbered just 14 in 1908 (Carano & Sanchez, 1964). Nelson had married a CHamoru woman and was thus more integrated into CHamoru culture than the other American staff members (U. S. Census Bureau, 1920a). Prior to his permanent appointment, he was a station foreman working for \$4 a day (Zappone, 1912).

Early lists of station expenditures show that there were also dozens of CHamorus working primarily as laborers making 64 cents a day but also as carpenters, masons, teamsters, and more (Zappone, 1911, 1912, 1913). The early laborers played a crucial role in getting the station going since the land had not been used for agriculture in some time and “had reverted to almost a tropical jungle” (True, 1910, pp. 94–95). Only then could the station begin the work outlined by True (1909) as follows: “the introduction and breeding of crops of various kinds, forage plant production, improved methods of tillage, soil conservation and improvement, introduction of livestock, and animal breeding” (p. 31). Laborers continued to play an important behind-the-scenes role in the station throughout its existence (Coolidge, 1928; Harding, 1922).

¹ Cotot was a name formerly used for Cotal, located southeast of Piti in the middle of Guam (Santos, 2018; U. S. Board on Geographic Names, 1955).

Anonymous Plant Collector

The first mention of a CHamoru employee performing scientific work for the station occurred in Thompson's annual report for 1913. Although William E. Safford (1905), a USDA scientist and former lieutenant governor on Guam, had written a 416-page volume entitled *Useful Plants of Guam* in 1905, Thompson felt that more efforts at botanical collection were needed. For this he requested that the Philippine Bureau of Science send "a native collector from the Philippines" (J. B. Thompson, 1914, p. 20). That plan did not work out, but the Bureau of Science did send Richard C. McGregor, who "with a native laborer from this station as helper collected specimens of the flora of Guam during a month of his vacation period" in November of 1911 (J. B. Thompson, 1914, p. 20). McGregor trained this CHamoru employee to continue the efforts after he left, which resulted in the collection of 484 specimens in addition to the 232 collected by McGregor (Cox, 1913). Unfortunately, the name of this collector was not given in the annual reports of the station or of the Bureau of Science, but he would have been one of the laborers in the station expenditure reports mentioned above.

An interesting possibility is Jose Salas, who was among the four laborers making the highest daily wage (80 cents) that fiscal year (Zappone, 1913). He (or someone by the same name) was one of two CHamorus who earned scholarships in 1912 to study in the Philippines. The other scholarship winner was Joaquin C. Guerrero, who would become the first permanent CHamoru employee of the GAES. Governor Robert E. Coontz had corresponded with the director of the Philippine Bureau of Forestry regarding forestry on Guam, and the Naval Government sent the two scholars to study Forestry at the University of the Philippines (UP) ("Guam Students," 1912; UP, 1914).

First Permanent CHamoru Employee

Guerrero was born on October 29, 1892. After completing eight years in public schools, which was all that was available on Guam at the

time, he himself became a school teacher in 1908 (J. Guerrero, 1918; Underwood, 1987).² Guerrero and Salas enrolled in the School of Forestry's Ranger Course, which led to a certificate rather than degree (Villamor, 1916). The UP catalog stated that "students who have not had the equivalent of the first two years' work in a public high school may take a four years' course in forestry, the first two years being identical with the course in agriculture" (UP, 1912, p. 156). Accordingly, Guerrero and Salas took four years to complete the program.

The experience in America's largest overseas colony must have influenced the way Guerrero and Salas viewed the Naval Government of Guam. While Guam had no elected legislative body, an elected Philippine Assembly held lower-house legislative authority since 1907, and by 1916, Filipinos held complete legislative authority and were in charge of most government bureaus (Kramer, 2006). In the School of Forestry, the faculty not only included prominent American botanists such as Edwin B. Copeland and Fred W. Foxworthy but also Mauricio J. Oteyza, a Filipino who had a bachelor's from Kansas State Agricultural College and a Masters of Forestry from Yale (UP, 1914). Oteyza's academic credentials exceeded those of all the Americans with whom Guerrero would work in the GAES. However, even highly educated Filipino scientists were often treated as a "native assistant" by their American counterparts in the Philippines during this time (Uichanco, 1958, p. 458).

Guerrero and Salas graduated in 1916, and Guerrero joined the GAES as a laborer making \$2 a day (Evans, 1919; Sherfese, 1916). He soon became the assistant of Glen Briggs, who joined the station in 1917 to replace Hartenbower as agronomist and horticulturalist. Like Hartenbower, Briggs was a graduate of Oklahoma A&M College. In a letter to his alma mater's newspaper, he described Guerrero as "a very bright fellow" who impressed Briggs with his "great knack for remembering all scientific names and using them along with other book terms" (Briggs, 1917, p. 3). He admitted that "the larger percent of the crops, such as

² Underwood (1987) notes of the pre-War era that "teachers themselves were typically eighth grade graduates with summer normal school training" (p. 164).

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tobacco, rice, bananas, cocoanuts, pineapples, coffee, etc., are all new to me, but there is a most excellent library that helps out wonderfully.” Having Guerrero as an assistant undoubtedly allowed work to continue as he was getting up to speed.

In another letter home, Briggs (1918b) gave his observations on the Naval Government, noting that “everything is practically handled by the [Naval] Government, or under its direct supervision. Is an absolute monarchy run by the navy and not by the people” (p.2). Briggs also found a certain arrogance in many Navy officers stationed on the island. When the Secretary of the Navy ordered strict prohibition of alcohol on Guam, Briggs (1918c) wrote, “It will nearly kill some of the officers here, and I imagine, as they are the ‘It’, they will find some way of getting it into the island, law or no law” (p. 4). If Briggs found this to be the case in his interactions with the officers, CHamorus like Guerrero must have experienced this condescending attitude to an even greater extent.

In May 1918, the station sent Guerrero for special training in plant propagation in the Philippines and in Hawaii from renowned horticulturalist James E. Higgins, and on July 1, 1918, Guerrero officially became the station’s first permanent CHamoru employee, with the title of Assistant in Horticulture and a salary of \$900 a year (Briggs, 1919; Evans, 1918; “Field Notes,” 1918). In the station’s annual report for 1918, Briggs (1919) noted that “Mr. Guerrero has the personal supervision of much of the work in horticulture, which has become more extensive with the addition of the Moritz property” (p. 46).

CHamoru Students at Oklahoma A&M

A severe blow to the island’s food supply and production of copra (dried coconut meat) occurred when a major typhoon struck Guam on July 6, 1918 (Edwards, 1921). To assist with the rebuilding of the island, Congress provided funding for the station to hire an extension agent. Undoubtedly through the recommendation of Briggs and perhaps Hartenbower, the man selected for the task was William J. Green, who, like Briggs, was a 1916 graduate of Oklahoma A&M. At the time, Green worked

with the Extension Division of A&M as Assistant Boys' Club Agent ("Bill Green," 1918). Boys' and Girls' Clubs were a major focus of Green's efforts on Guam as well because "the children are more eager to learn than the older folks, and they are more willing to put into practice the things they learn" (W. J. Green, 1921, pp. 70-71).

Like Briggs, Green's wife Gladys commented on the sense of entitlement shown by Americans connected with the Navy, while also acknowledging that she was able to participate in that privileged lifestyle. In a letter that seemed to be poking fun at Navy wives, she told her friends back home that she was able to "be quite a 'lady'" in Guam, having both a house boy doing the cooking and cleaning and a maid to take care of their son, who was born on the island (G. Green, 1920, p. 2). She noted that "it is the custom here, in fact, it is almost necessary, that the American women take a rest in the hottest part of the day."

On August 31, 1919, William wrote to Philip H. Hayes of Oklahoma A&M that he and Gladys were "having the time of our lives," and he also told Hayes to expect to see "Tubby Briggs" in Stillwater with four Chamorus who would study at Oklahoma A&M for varying lengths of time (B. Green, 1919, p. 4). Juan R. Rosario was a supervisor of a Boys' Club, and Jose L. G. Rios was his assistant. They were both also teachers. Green asked that Hayes "give them some dope on how the extension work is run back there." The expenses of these two, as well as of Ramon M. Sablan and Antonio I. Cruz, were paid by the Naval Government with the expectation that "they will have received training that will fit them for positions as club supervisors in connection with their teaching work" (W. J. Green, 1921, p. 77). Cruz, who would later work at the GAES, and Sablan first enrolled in high school-level courses before taking regular college courses (Student Association, 1920). Another student from Guam, Antonio A. Shimizu, accompanied them but paid his own way. Briggs and the students left Guam on September 8, 1919, and arrived in Stillwater on October 14 ("Five Native," 1919).

With the exception of Shimizu, these students were born on American soil, yet they were all considered part of the college's foreign student population ("Foreign Students," 1923; U. S. Census Bureau,

1920b). This ambiguous status, which was enshrined in several “insular cases” decided by the U.S. Supreme Court,³ was also reflected in letters from the students that were published in the *Guam News Letter*. Cruz (1921) wrote to the new governor that he hoped the governor, who was “strange to our island,” would “look upon our people in the same manner as you do your own” (p. 8). Sablan (1921) addressed a letter to “my dear countrymen,” noting that he had “experienced how bitter and discouraging it was to leave our home and our dear ones behind, heading toward a distant country to be confronted by all its embarrassments and its foreign atmosphere” (p. 5).

Increased Responsibilities for CHamorus

Briggs returned to Guam in February 1920, but he left for the States again in January 1921 and officially resigned on June 6, 1921 (Briggs, 1921; Edwards, 1923; J. Guerrero, 1923). By that time he likely knew that his position would not be funded for the following fiscal year (Harding, 1921). He served as an associate agronomist at Oklahoma A&M while working on a master’s degree (Bailey & Bailey, 1930a). The following year, he completed a master’s thesis based on his research in Guam. In the acknowledgement section, he mentioned various entities that had assisted him, but he mentioned only Guerrero by name (Briggs, 1922). Green seems to have wanted to stay in Guam longer, but his time was also cut short by the elimination of the position (Edwards, 1924).

The station’s report for 1921 listed Guerrero as Assistant in Agronomy and Horticulture. Speaking of himself in the third-person in his section of the report, he stated in a matter-of-fact manner that after Briggs’s departure he:

³ The Supreme Court ruled in 1901 that “whilst in an international sense Porto Rico was not a foreign country, since it was subject to the sovereignty of and was owned by the United States, it was foreign to the United States in a domestic sense, because the island had not been incorporated into the United States” (*Downes v. Bidwell*, 1901). This was one of several “insular cases” that applied also to Guam, and these cases continue to affect the status of the island (Chargualaf, 2021).

assumed direct charge of the agronomic and horticultural work of the station. In addition to his other duties, he served as a member of the Agana fair committee, having direct charge of the agronomic and horticultural exhibits and acting as judge of the agricultural products at the fair. (J. Guerrero, 1923, p. 8)

By using the word “direct” in both sentences, Guerrero may have been indicating that he saw himself as capable of continuing the work of Briggs, even if he was paid less than half of what Briggs made (Harding, 1921). Toward the end of the decade, Guerrero’s training in forestry came in useful, as the station assisted the Naval Government with reforestation efforts to replenish the island’s dwindling supply of timber (J. Guerrero, 1931, 1933).

Edwards was able to add another Chamoru to the station staff as Assistant in Poultry Husbandry in 1921. Francisco B. Leon Guerrero, who was born on March 6, 1898, served as a teacher making 35 cents a day and then school principal before joining the station as a daily worker earning \$1.50 a day in 1918 or 1919 (Leon Guerrero, 1921; Nelson, 1965; True, 1921). While he had little formal training in agriculture, he was “an ambitious student making good use of every opportunity,” and he had “become very proficient in poultry management and it is expected to turn over most of the details to him” (Evans, 1921). Leon Guerrero described himself as a “machete scientist,” which Michael Lujan Bevacqua (2020) interprets as his way of showing “how he felt that farming and being connected to the land was its own form of intelligence and power.” He was a vocal opponent of Naval rule, as demonstrated in 1924 by his refusal to stand in the presence of the Naval governor, who was on a visit to the station. For this, he “was sentenced to 15 days of hard labor” (Quinata & Palomo, 2022). Leon Guerrero also received an initial salary of \$900, but he and Guerrero were both promoted to the civil service classification of “Minor Scientific Helper” in 1924, which included a fifty percent pay raise (Gladmon, 1924a, 1924b).

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After Green's departure, the station staff took on aspects of extension work as possible. Peter Nelson supervised the club work, and the island government funded "a former supervisor of the Sumay Boys' and Girls' Clubs" to assist him (Edwards, 1924, p. 18). The clubs were discontinued in October 1923 so that the assistant could focus his efforts on school gardens, but they were reinstated on a smaller scale a few of years later (Edwards, 1926a; Shapley, 1926). Antonio Cruz returned from Oklahoma A&M in October 1922 and was under contract to teach for five years (Althouse, 1923). He held the position of School Garden Supervisor for a year and would likely have collaborated more with the experiment station staff than the other A&M students (Evans, 1929; "Schools Observe," 1925). The Naval Government allowed Cruz to end his contract early, and he began studies at the University of Hawaii (UH) in the fall of 1926 ("Guam Teacher," 1926).

In addition to the Department of Education, the station staff also collaborated regularly with other departments of the Naval Government. Beginning in 1925, the station had the assistance of a full-time CHamoru extension agent employed by the Department of Industries. Frank Taitano held this position until his death in 1937 (J. T. Alexander, 1938; Edwards, 1928). This department also operated a farm in Barrigada "to demonstrate improved methods of agriculture and truck gardening" (Smith, 1917, p. 4). The GAES conducted experiments on the Barrigada farm, as well as the Police Department's farm at Libugon, which used prison labor to "suppl[y] the local American colony with fresh vegetables and fruits practically throughout the whole year" (Bradley, 1930, p. 23; Santos, 2018). The Police Department employed a Chief Forester to help combat deforestation, and the station collaborated with this person at various times (Edwards, 1931a). Jose L. G. Bitanga held this position from 1922 to at least 1930 (Althouse, 1923; Bradley, 1930). The Police Department also had an Insular Patrolman, typically a U.S. Marine, stationed in each village, and they were called upon to cooperate with the GAES from time to time (Edwards, 1928; Root, 1932). Such collaborations with the Police Department may have been useful for the work of the station, but Santos (2018) notes that it also could have decreased the

people's willingness to cooperate because of concerns about government surveillance of their ranches.

During this era of American agriculture, experiment stations and extension services on the mainland recognized the importance of "progressive" farmers who would keep "apace of the times" (Pearson, 1921, p. 411). *The Guam Recorder* described Taitano as "an active, progressive, educated Chamorro farmer" who could help farmers become more efficient and profitable ("More Let's Keep," 1925, p. 262). Like American GAES employees, Guerrero and Leon Guerrero also made a distinction between the typical CHamoru farmer and the "progressive" farmers who adopted methods advocated by the station and allowed the station to conduct experiments on their property (J. Guerrero, 1923, p. 13; Leon Guerrero, 1931, p. 8). A major commercial entity that allowed experiments on its property was Atkins, Kroll & Co., which owned a large coconut plantation and also engaged in other agricultural pursuits on the land (Ballendorf, 1984; Briggs, 1921; Santos, 2018).

Further Expansion of the Station Staff

The four-member station staff expanded again in 1925 after Congress provided funding for an entomologist to combat the coconut scale insect, which threatened Guam's only major export industry (Edwards, 1926b). The one selected for this position was S. R. Vandenberg. Unlike other USDA personnel sent to the island, he had some first-hand familiarity with Guam, having served there as a Marine officer a few years before (Bailey & Bailey, 1930b; "Faculty," 1920). When Vandenberg went on leave for two and a half months in 1928, his "work was continued by a native helper under the supervision of the director" (Edwards, 1930, p. 6). Judging from the annual report for that year, the work went smoothly during that time, but neither Edwards nor Vandenberg provided the name of this CHamoru employee.

Edwards (1930, 1931b) continued to appeal for the restoration of the Extension position, and the station finally received funding to add an Assistant in Extension for the 1930 fiscal year. Edwards did not have to

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look far to find the ideal candidate for the position. Cruz, who was born on November 2, 1904, was able to transfer 32 credits from Oklahoma A&M, allowing him to start in the sophomore class (Cruz, 1929; UH, 1926). He worked part-time for the Hawaii Experiment Station, and on a trip home during the summer of 1928, he worked for the Guam station (“University Student,” 1928). Cruz graduated in 1929 with a degree in Vocational Education with an emphasis in Agriculture, and his GAES appointment began on September 1, 1929 (Cruz, 1931; UH, 1929). He stayed a while longer in Hawaii studying extension work before reporting to the station on October 20, 1929 (Cruz, 1931).

The station now had its largest number of permanent employees, with the three CHamoru employees comprising half the staff. Cruz had the civil service classification of Assistant Scientific Aid and an annual salary of \$1,620 (Gladmon, 1929). Guerrero and Leon Guerrero would soon be classified as Junior Scientific Aids with salaries of \$1,560 and \$1,440 respectively (Gladmon, 1932a, 1932b). Salaries of the American members of the staff were as follows: \$5,000 for Edwards, \$3,700 for Vandenberg, and \$2,600 for Nelson (*Agricultural Department*, 1932). Although station salaries were set in Washington, it is worth noting that racially discriminatory wages were the norm in Guam during Naval rule. When Laura Thompson (1947) was on the island in the late 1930s, an “educated Guamanian” informed her of “an Oriental standard of wages in Guam. Skilled white laborers get \$4.00 a day, natives get \$2.50” (p. 148). When Naval rule was restored after the Japanese occupation, wages for CHamorus were routinely a fourth of the wages earned by workers doing the same job who were brought in from Hawaii or the mainland (Cogan, 2008).

For adult demonstration work, Cruz worked with Taitano, district commissioners, and in some cases the insular patrol (Cruz, 1931). For the restarted Boys’ and Girls’ Club work, he cooperated with the local schools. Total school enrollment increased from 1,894 in 1920 to 3,683 in 1930, and the Naval Government remained very concerned with the state of agricultural education (Underwood, 1987). Governor Willis W. Bradley made “an urgent request” for “an educator thoroughly trained in

agriculture and mechanical work” to fill the position of Superintendent of Public Instruction, and Wilfred L. Newton, a fresh graduate of Mississippi A&M College, was selected for the position (“Superintendent,” 1930, p. 153). Newton started in November 1930, and in August 1932 he began personal supervision of school gardens (Root, 1931, 1932). However, the Naval Government eliminated the position in 1933 (Reid, 1941).

Closing of the Station

In December 1931, Walter Evans and Assistant Secretary of Agriculture Renick W. Dunlap appeared before a subcommittee of the U. S. House Committee on Appropriations to discuss appropriations for the 1933 fiscal year (*Agricultural Department*, 1932). The USDA budget proposal showed a reduction in every USDA agency, reflecting the federal government’s decrease in revenue due to the depression, and one proposal was the closing of the GAES. The chair of the subcommittee, James P. Buchanan, expressed an interest in keeping the station open and asked about the minimum funding required. Dunlap provided a scenario that would keep Edwards, Vandenberg, Nelson, and Cruz, but eliminate the position of Guerrero and Leon Guerrero. When the budget passed, there was no funding at all for the station, and the station closed on June 30, 1932 (Edwards, 1933). The station apparently did not have a lot of advanced notice because Leon Guerrero later recalled “the chaotic condition we were in at the time ... prior to the closing” (Leon Guerrero, 1937).

Nelson moved to California before taking a position with the Virgin Islands Experiment Station, working as assistant to former GAES colleague Glen Briggs (Agnew, 1935; “Oldtime Guamite,” 1934). Edwards transferred to the Iberia Livestock Experimental Farm in Louisiana, and Vandenberg later worked in Puerto Rico for the USDA’s Bureau of Entomology and Plant Quarantine (“Investigations,” 1936; “Personalities,” 1932). Leon Guerrero continued to be involved in agriculture, and he also was a prominent member of the Guam Congress, which served as an advisory board for the governor. In November 1936, he and Balthazar J.

Bordallo went to Washington, where they spoke at length at a Senate hearing regarding citizenship for the people of Guam (*Citizenship*, 1937). He also met briefly with President Franklin D. Roosevelt. When asked in the hearing about his occupation, Leon Guerrero simply responded that he was a farmer, and during the trip, he helped to facilitate the introduction of “twenty-two varieties of trees and ornamentals” into Guam (J. T. Alexander, 1938, p. 19; *Citizenship*, 1937). He also became a licensed attorney at some point (Nelson, 1965).

Root Agricultural School and School Farm

The USDA transferred the station’s property to the Naval Government, which established an agricultural school and school farm on the property in Piti (Blauch & Reid, 1939). An agricultural school begun in 1924 was deemed a failure by Governor Bradley, who described it as “little better than a third rate school garden” (“Guam Agricultural School,” 1924, p. 12; as quoted in Underwood, 1987, p. 131). Cruz and Guerrero both worked at the new institution, which was named for former Governor Edmund S. Root.⁴ The annual *Educational Directory*, published by the U.S. Office of Education, listed Cruz as “In charge of vocational training” for Guam for 1933 to 1939 and as “Supervisor, agricultural school” from 1940 (U. S. Office of Education, 1933, p. 8, 1940, p. 8). He was also referred to as “School Farm Supervisor” in *The Guam Recorder* (“Guam Institute,” 1934, p. 31). Guerrero listed his occupation as “Teacher” in the 1940 census, but a later entry in *Who’s Who in the West* indicated that he also may have had the title of “Superintendent” of the School Farm (“Guerrero, Joaquin,” 1956, p. 253; U. S. Census Bureau, 1940). The school’s curriculum covered the following subjects: “poultry husbandry, practical elementary botany, swine husbandry, gardening, fruit orcharding, elementary agronomy, elementary entomology, English, mathematics, and practical or field

⁴ Governor Bradley (1930) started the policy of renaming schools “in order that the names might have some real meaning and perpetuate the names of men who have been prominent in the history or development of the island” (p.18). The majority of these “prominent” men were former Naval governors.

enterprises” (Reid, 1941, p. 335). Laura Thompson (1947) reported that 80 students had graduated from the two-year program by 1938, and she was careful to note that they were taught by “two qualified instructors” (p. 227). The school farm covered many of the duties of the GAES (J. T. Alexander, 1938).

In July 1935, Guerrero wrote an article for *The Guam Recorder* entitled “My Ideal – The Farmer” by which he tried to persuade his fellow CHamorus to change their attitudes towards farming (J. C. Guerrero, 1935). To the objection that farming was hard work, he highlighted the health benefits of hard work and the availability of farm machinery to lighten the burden. He encouraged living on farms by highlighting the improved road system, “the moderate prices of automobiles,” the mail service, and the availability of telephones for emergencies. He also noted that “a prosperous farmer may enjoy the comforts of electric lights, electric refrigeration, or concerts from the various cities of the world over the radio” (J. C. Guerrero, 1935, p. 94). It is only in the context of this letter that Santos (2018) mentions Guerrero, cautioning that his work with the colonial government should not be viewed “as simply wholesale appropriation of the colonizer’s culture” (p. 124).⁵

Guerrero’s appeal came six years after another government scholarship recipient wrote a multi-part article for *The Guam Recorder* entitled “A Plea for Better Health Conditions.” The author was Ramon Sablan, now a Junior Assistant Health Officer who had recently returned from special studies in bacteriology at Oklahoma A&M (“Guamanian,” 1928; Hattori, 1999). Sablan (1929) urged the people of Guam to cooperate with government health officials instead of continuing their “lack of cooperation, due to our superstitions, ignorance, plus certain influences” (p. 50). The Naval Government would have been pleased to have well-educated CHamorus provide such endorsements to their health and agricultural policies. However, the Naval Government was also disappointed that the small number of students it sent to study out of

⁵ Santos (2018) mentioned Leon Guerrero only in the context of his trip to Washington and Cruz only in the context of an article written for *The Guam Recorder* in 1930.

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Guam “have as a rule returned and demanded high salaries on the basis of their Government-paid education, whereas others who went to college and earned their own way have returned and taken their places in the scheme of things much more satisfactorily” (Blauch & Reid, 1939, p. 194).

For most of the pre-War period, the Naval Government’s agricultural endeavors fell under the Department of Industries. In 1935 a separate Department of Agriculture was established, and the Root Agricultural School and School Farm were moved from the Department of Education to the new department (Blauch & Reid, 1939). Oversight of Boys’ and Girls’ Clubs was transferred to the Department of Agriculture three years later (J. T. Alexander, 1938). Though the first department head was a Navy officer, the department was led from 1937 to 1939 by USDA entomologist Richard G. Oakley (Oakley, 1944). According to Laura Thompson, this was the only instance in the pre-War era that a department was not headed by a naval officer (L. Thompson, 1947). It is unlikely that Cruz was ever considered for the position, but he had the needed academic qualifications and practical experience.⁶

Oakley came to Guam the year after a major entomological survey of the island led by Otto H. Swezey and Robert L. Usinger of the Bernice P. Bishop Museum in Honolulu. Guam was now a stop on Pan-American Airways trans-Pacific route, and there was concern in Hawaii about invasive insect species that could destroy crops in the territory (Swezey, 1942). The house on the campus of the Root Agricultural School served as the base of operation for the entomologists, and in the resulting two-volume set *Insects of Guam*, the two had special appreciation for Cruz for his work in facilitating their work (Swezey, 1942; Usinger, 1946).

Efforts to Reestablish the Station

Governor George A. Alexander (1933) reported that “it was with much trepidation and regret that the natives, as well as the

⁶ Oakley graduated with a Bachelor of Science in Agriculture from the University of Arkansas just a year before Cruz graduated from Hawaii (“Oakley, Richard G.,” 1959).

Administration, viewed the closing of [the GAES]; but now after practically a year, it is felt that as much good can be accomplished by the use of the property as an Agricultural School” (p. 4). However, it was soon evident that the Guam Department of Agriculture was insufficiently staffed to adequately serve the local population, which had risen to over 21,000 by 1938 (J. T. Alexander, 1938). When Leon Guerrero appeared before a Senate subcommittee in 1937, Senator Ernest W. Gibson asked him about priority items for federal funding on Guam. The second item Leon Guerrero listed, after expansion of the road network, was “the [re]establishment of the experiment station for the benefit of the farmers of Guam directly and for the benefit of all other tropical and subtropical sections of this country in particular and other places in general” (*Citizenship*, 1937, p. 105). He also stated that “such has been assured us by the President of the United States in our conference with him,” though Roosevelt did not follow through with that promise. The following year, Governor James T. Alexander (1938) noted that the activities of the school farm were “necessarily conducted on a small scale and because of this limitation there is an urgent need for the reestablishment of the Guam Station by the U. S. Department of Agriculture to continue efforts terminated in 1932” (p. 18).

After the death of Taitano, the Naval Government tried “to employ a graduate student from a mainland University” to lead extension efforts, but this was unsuccessful “no doubt due to the limited salary offered” (J. T. Alexander, 1938, p. 20). Efforts to have a USDA employee assigned to the island for that purpose also failed. The success of the Root Agricultural School was limited as well, since “the majority [of graduates] have not shown a genuine interest in farming” (Blauch & Reid, 1939, p. 191). After a major typhoon struck the island in late 1940, several students left, leaving the school with only 13 students. The Naval Government decided to close the school but keep the school farm open (McMillin, 1941).

Governor George J. McMillin (1941) highlighted in the last pre-War annual report the importance of extension work because of the continued “natural reluctance of the people of Guam to come to the Farm” (p. 16). He implemented the second reorganization of extension work in three years.

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In the new model, an extension agent was assigned to one of four extension districts on the island, but the enforcement duties of these agents, such as serving as deputy game wardens, may have led to more reluctance on the part of farmers (J. T. Alexander, 1938; McMillin, 1941; Santos, 2018). McMillin also planned to move the courses that had been taught in the Root Agricultural School to the George Washington High School the following school year. On the eve of World War II, the Naval Government still grappled with the issue of agricultural self-sufficiency, and the practice of living in towns and commuting to family ranches remained common, though the Naval Government had tried in vain for decades to end it (L. Thompson, 1947).

World War II and Beyond

Soon after the Japanese bombed Pearl Harbor, Guam was also under attack. McMillin surrendered on December 10, 1941, and the three former station staff members and their fellow CHamorus would be under brutal Japanese occupation for two and a half years (Carano & Sanchez, 1964). American efforts to retake Guam also brought great destruction to the island. Most homes were destroyed, as was the Root Agricultural School and School Farm (Hopkins, 1947). The war marked the end of Guam as an agricultural society, though CHamorus continued to cherish their ties to the land (Underwood, 1987). Cruz noted in late 1946 that the military had “taken much of Guam’s tillable land [which had] created great difficulties for the families who formerly farmed” (“This Is Mr. Cruz,” 1946, p. 6). The amount taken was three-fourths of CHamoru-owned farmlands, in addition to other CHamoru-owned properties, but not all of that land was used for direct military purposes (Hattori, 1995). Some was used for military recreation, and some seized farmlands were not used at all. Land confiscations and the increase in non-farm job opportunities had long-term and devastating effects on the traditional CHamoru way of life (Hattori, 1995, 2001; Underwood, 1987).

After the war, agricultural functions of the government fell first under a Department of Internal Affairs and then a Department of

Agriculture and Fisheries, which included a demonstration farm (Navy Department, 1948). Guerrero served an administrative role in the departments (“Guerrero, Joaquin,” 1956). Cruz worked for the Foreign Economic Administration before joining the University of Hawaii Extension Service in 1946. Two years later, he began over a decade of service with the Trust Territory of the Pacific (Cruz, 1957; “Cruz to Head,” 1961; Richard, 1957). Leon Guerrero went to Washington again and “contribut[ed] greatly to the contents of the Organic Act” of 1950, which provided citizenship to the people of Guam and ended Naval rule (120 Cong. Rec. 16864, 1974).

When the civilian government began, Guerrero served as the first CHamoru head of the Department of Agriculture until retiring in 1954 (Carano & Sanchez, 1964; “Guerrero, Joaquin,” 1956). Leon Guerrero was elected to the first and third Guam Legislatures, serving as speaker for the latter (Carano & Sanchez, 1964). In an interview with Leon Guerrero, Joan Nelson (1965) found him to be “more in the idealistic than the practical category, as an experimenter in the soil, as a debator of principles concerning the political life of the people of Guam” (p. 9). Cruz died on April 21, 1970 (“A. I. Cruz,” 1970). He was followed by Leon Guerrero on March 8, 1974 (120 Cong. Rec. 16864, 1974) and Guerrero on January 15, 1977 (“Joint,” 1977).

Conclusion

This article has provided an overview of the CHamoru employees of the GAES, which was established in 1908 and closed in 1932. When the station opened, the USDA and the Naval Government were optimistic that a transformation of agriculture would ensue that would help the island become more self-sufficient, though that transformation was not realized in the pre-War era (L. Thompson, 1947). The resistance encountered was perhaps an example of how “the navy government itself was appropriated and absorbed into the Chamorro cultural landscape” (Hattori, 2014, p. 28). Though the station worked closely with the Naval Government, the GAES did provide some CHamorus with a unique government employment

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opportunity outside of the naval establishment. Dozens of CHamorus performed crucial behind-the-scenes work for the station. Guerrero and Leon Guerrero spent over a decade with the USDA, and Cruz and Guerrero also played key roles in the station's successor, the Root Agricultural School and School Farm. It is hoped that further studies will expand on this overview and dig deeper into the careers of Cruz and Guerrero, as well as Leon Guerrero's time with the USDA.

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