

2024 COMPREHENSIVE Report of Program Data **Agriculture (AGR)** AY 2019-2020 to AY 2023-2024



1. Program or Unit Mission

This program prepares students for employment in government service, agribusiness, horticulture, livestock, flowers and foliage, landscape, and the macadamia nuts, papaya, and coffee industries.

2. Program Student Learning Outcomes or Unit/Service Outcomes

PLO 1: Plan and manage projects and cultivate horticultural crops using legal, sustainable, safe, and ecologically, biologically, and technologically sound practices.

PLO 2: Design gardens that demonstrate the aesthetic principles of unity, repetition, balance, color, and texture congruent with the customers' desires.

PLO 3: Operate and maintain tools and equipment.

PLO 4: Set-up and manage a business enterprise.

PLO 5: Interact with customers and co-workers in ways that effectively support the work to be accomplished.

For the period of this Comprehensive Review, there were no assessments performed. This was due to lack of staff personnel during this period. The lack of assessments will be addressed in the action plan section.

3. Analysis of the Program/Unit

Demand Indicators: Very good score. All indicators seem to point to high demand for highly skilled AGR graduates, even though the County and State replacement positions numbers have slowly declined post-COVID. The replacement position numbers do not reflect entrepreneurial opportunities that many students would like to pursue. Also, the CIP/SOC codes may not reflect workforce opportunities with smaller private companies. The actual current job opportunities are very good in the County and State of Hawai'i.

Efficiency Indicators: Very good score. Our fill rate averaged out to 100.36% for AY20-24. We

continue to allow students to enroll over the class limit due to the high interest in the program. Agriculture interest seems to be on the rise. If our fill rate continues to exceed capacity, we will need to start an additional cohort and seek another faculty position.

Effectiveness Indicators: Very good score. Fall to Spring persistence and successful completion has steadily increased to 100% for AY24. Although we had a very good score for this Indicator, we are limited in our ability to increase our Unduplicated Degrees/Certificates Awarded much further than the current number. We do not have the physical space or staff to grow the program beyond what the single faculty member already is accomplishing.

Perkins Indicators

1P1 (Met) Successfully met goal of 35% with a 57%
2P1 (Met) Successfully met goal of 35% with a 73%
3P1 (Met) Successfully met goal of 12% with a 33%

The AGR Program in collaboration with the Electronics Program successfully secured a \$300,000 NSF ATE Grant to build a Mobile Controlled Environment Greenhouse that would be solar powered. The grant runs from July 2021 to 2025 and will be used to train AGR Technicians in high tech agricultural production. This mobile unit will be taken to local high schools to help train and recruit new AGR students to Hawai'i Community College. Production started in the spring of 2021, and we are currently half-way through the initial build. We are currently working on the curriculum for this project and the solar power source.

The HawCC AGR Program is partnering with Ka'u High School to articulate our first year of study to form a career pathway to HawCC. This would give students the opportunity to complete their first year of our Agriculture Program while in high school and earn two certificates of completion. They may continue on at HawCC after graduation to finish their final year and receive an AAS degree in Agriculture.

The HawCC AG Program in partnership with the Honua Ola Bioenergy Company has developed a working Agroforestry demonstration project on three acres of land adjacent to the bio-energy plant in Pepe'ekeo. The edible crops that are grown are being donated to the Hawai'i Food Basket for distribution. Summer interns worked during the summer of 2021 to hand clear the site. Fencing was completed in the fall of 2021, and planting commenced in the spring of 2022. The first harvest of bananas was completed in the Spring of 2023 and has continued till today with approximately 2,000 lbs of produce being donated to the Hawai'i Food Basket.

The HawCC AGR Program continues its collaboration with the Culinary Program with a program-to-program farm-to-table initiative. This provides the Culinary Program with a variety of fresh produce and gives our students a chance to learn true production agriculture skills and about food sustainability and resiliency. About 200 to 300 lbs of produce is transferred weekly to the Culinary program during each semester.

The HawCC AGR Program continues its collaboration with the four ATE programs on the Model Home Project in Keaukaha. We propagate all plants that are used in the landscaping during the fall semester and continue to do the planning and installation in the spring semester at the Model Home

site. We will be installing the landscaping for Model Home 56 this coming Spring 2025.

The HawCC AGR Program continues to support the Hawai'i CC Food Distribution Program and the Kahuaola Food Distribution Center for needy students. We harvest and package fresh produce for the monthly and weekly food distributions and encourage AGR students to serve as volunteers during the monthly distributions.

The HawCC AGR program has secured a NIFA Butchering Grant in collaboration with CAFNRM and CTAHR. This grant is worth \$950,000.00 and will run for 5 years. The grant has afforded the HawCC Agriculture Program to launch its Small Animal Production Program with the first introductory course, AG 164 Integrated Livestock Production and Animal Science, being offered in the fall of 2024. This course will be articulated with both CAFARN and CTAHR. Butchering classes will run during the summer and will be available to students in the three programs mentioned above.

<https://uHawCC.hawaii.edu/varpd/index.php?y=2024&c=HAW&t=CTE&p=2992>

4. Action Plan

The Hawai'i Community College Agriculture Program is seeking to secure its own farm lab, independent of the UH Hilo College of Agriculture Forestry and Natural Resource Management (CAFNRM). With the Manono Redevelopment Plan moving forward again, we are also seeking to relocate our classrooms to the farm lab to eliminate costly commuting time between the classrooms and the farm lab. If the Hawai'i CC Agriculture Program is able to secure its own land to develop a modern and efficient farm lab, we could triple our student capacity and quadruple our growing area. This would lead to increased student enrollment and ultimately enhanced student learning. Two additional faculty would be needed along with two APT's for the Animal Production cohort and the second Agriculture Production cohort.

Another reason to secure our own farm lab is to fulfill part of our program's mission statement by having livestock as part of our curriculum. Under the current agreement with UHH CAFNRM, we are not able to have any livestock on the farm. Livestock has not been part of the curriculum for a number of years, but, with a new farm lab, we anticipate adding a Small Animal Production cohort to the AGR Program.

In the spring of 2024, Hawai'i Community College received an offer of 16.5 acres on the north end of the UHH CAFNRM Ag Farm site. We are currently waiting for the official Term Sheet to make the transaction official. The planning and building stage for the farm lab will be a three-to-five-year process if there are no major setbacks. With this new offer, we will be able to move ahead with our small animal cohort and add a second agriculture production cohort on the newly acquired land.

We hope to have state-of-the-art classrooms, greenhouses, restrooms, a food processing area, equipment and other necessary components with "green sustainability" as the theme for all of the items that are included for the farm lab. Having a new facility will bring a renewed excitement to

student learning. We will be able to recruit effectively, keep students motivated and increase our retention. Our goal is to have a public-friendly facility and facilitate tours for grades K-12 and the general public.

Action Item #1: Initiate planning for farm structures such as a certified kitchen, a produce processing unit and a building to house these items, along with classrooms at the Farm Lab. Plans could be made available within a year. As the plans are put into motion during AY 2025-2026, the facilities will be established, and this will help improve student learning. There would be less commute time and more teaching time. Hands-on learning would be greatly increased due to the efficiency of the layout of the farm. The AGR program's new facilities will help improve student learning and attainment of the PLO's by supporting the whole program's curriculum, especially in the program's refocus into farm-to-table, sustainability, and landscaping. Farm-to-table involves not only the Agriculture program but also the Culinary Arts program.

Benchmark/Timeline: Develop the project with legislators and administration, organize ATE collaborators, and begin site-specific planning in 2024-2025. Plan for completion of the project in 2025-2027. This project directly facilitates PLOs 1-5 for the agriculture program. Additionally, the College as a whole benefits from the physical results of this project as well as the inherent benefits of increased collaborations.

The resource requests below that are related to this Action Item are:

Equipment	Estimated Date Needed
1. 4WD 12 passenger van	1/2025
2. 4WD 12 passenger van	1/2026
3. 4WD UTV (Utility Vehicle)	1/2026
4. Zero turn mower	1/2026

Action Item #1: Alignment to the [Ka'ao Ka'ika'i Strategic Plan AY2023 - AY 2029](#)

Ka'ika'i Kuleana	Fulfill kuleana to Native Hawaiians and Hawai'i Island.
Ka'ika'i Haumāna	Develop successful students for a better future.
Ka'ika'i Oihana	Meet Hawai'i Island's workforce needs of today and tomorrow.
Ka'ika'i Noi'i	Diversify Hawai'i Island's economy through innovation and multi-sector partnerships.
Ka'ika'i Kauhale	Build and Maintain the Wellbeing of the College Kauhale.

Action Item #2: The hiring of a Farm Manager is a vital part of the program expansion and current program needs. Unlike most other programs, the AGR program deals with live crops. These crops are student projects that must be maintained (watered, fertilized, etc.). The instructor should be spending his non-teaching time developing the program, not maintaining the farm. With

the assistance of a farm manager, the instructor can develop and fine-tune the program/curriculum so that the students can learn and attain PLOs 1, 2, 3, 4, 5 efficiently. This will enhance student learning by exposing students to a well thought out and planned curriculum provided by the instructor. With the additional space, we would also like to add the animal component to the HawCC AGR program. The program has been without a livestock curriculum for many years. We would need to have an animal instructor and an additional APT to run the livestock program. We anticipate having chickens, pigs, rabbits, bees, fish, and other types of animals on the farm. As the animal program grows, we would like to add a veterinarian technician class as part of the program. This would add additional value and raise interest in the program. We seek to have a Farm Manager in place by the end of AY 2024-2025.

The resource requests below that are related to this Action Item are:

Personnel	Estimated Date Needed
APT-A, Farm Manager/Farm Coordinator	01/25

Action Item #2: Alignment to the [Ka'ao Ka'ika'i Strategic Plan AY2023 - AY 2029](#)

Ka'ika'i Kuleana	Fulfill kuleana to Native Hawaiians and Hawai'i Island.
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Ka'ika'i Kauhale	Build and Maintain the Wellbeing of the College Kauhale.

Acton Item #3: Equipment to run the farm will need to be included in the initial planning. We will have total control of the new Hawai'i Community College Ag Farm and will have to maintain all 16.5 acres that are utilized. A comprehensive equipment list evaluation and needs analysis will have to be done in AY 2024-2025. The equipment requested would directly support PLO 1 and 3.

A comprehensive equipment list evaluation and needs analysis will be provided in AY 2024-2025.

Action Item #3: Alignment to the [Ka'ao Ka'ika'i Strategic Plan AY2023 - AY 2029](#)

Ka'ika'i Kuleana	Fulfill kuleana to Native Hawaiians and Hawai'i Island.
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Ka'ika'i Oihana	Meet Hawai'i Island's workforce needs of today and tomorrow.
Ka'ika'i Noi'i	Diversify Hawai'i Island's economy through innovation and multi-sector partnerships.

Ka'ika'i Kauhale	Build and Maintain the Wellbeing of the College Kauhale.
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Action Item #4: Start the planning process of hiring two additional faculty members and two APTs for the Animal Science cohort and the Horticulture cohort.

The resource requests below that are related to this Action Item are:

Personnel	Estimated Date Needed
Faculty, Animal Science	8/2025
Faculty Horticulture	8/2025
Instructor, Animal Science	8/2025
Instructor, Horticulture	8/2025
APT-A Animal Science	8/2026
APT-A Horticulture	8/2026

Action Item #4:Alignment to the [Ka'ao Ka'ika'i Strategic Plan AY2023 - AY 2029](#)

Ka'ika'i Kuleana	Fulfill kuleana to Native Hawaiians and Hawai'i Island.
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Ka'ika'i Oihana	Meet Hawai'i Island's workforce needs of today and tomorrow.
Ka'ika'i Noi'i	Diversify Hawai'i Island's economy through innovation and multi-sector partnerships.
Ka'ika'i Kauhale	Build and Maintain the Wellbeing of the College Kauhale.

Action Item #5: Work with the Institutional Assessment Coordinator to update and restart the AGR Program's course assessment schedule. No resource requests are needed for this Action Item.

Action Item #5:Alignment to the [Ka'ao Ka'ika'i Strategic Plan AY2023 - AY 2029](#)

Ka'ika'i Haumāna	Develop successful students for a better future.
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5. Resource Implications

Special Resource Requests not included in your operating “B” budget

I am NOT requesting additional resources for my program/unit.

I AM requesting additional resource(s) for my program/unit.

Total number of items being requested for AY24-25-: 2 (4 items max.)

Additional Resource Requests for AY25-26 are detailed below.

ALLOWED CATEGORIES	Category-Specific Information Needed			
Equipment	Estimated Date Needed	Quantity / Number of Units;	Total Cost (with S&H, tax)	On Inventory List (Y/N);
4WD 12 passenger van	1. 1/2025	1. 1	1. \$99,000.00	1. No
4WD 12 passenger van	2. 1/2026	2. 1	2. \$99,000.00	2. No
4WD UTV	3. 1/2026	3. 1	3. \$32,000.00	3. No
Zero turn mower	4. 1/2026	4. 1	4. \$18,000.00	4. No
Personnel Resource	Estimated Date Needed	FTE; Position Type; Position Title	Estimated Salary	Was an Existing Position Abolished? (Y/N); Position #
Faculty	8/2025	Animal Science	?	Y
Faculty	8/2025	Horticulture	?	Y
Farm Manager	01/25	APT-A Farm Coordinator	?	Y
Instructor	8/2025	Instructor, Animal Husbandry	?	N
Instructor	8/2025	Instructor, Horticulture	?	N
APT	8/2026	APT-A Animal Science	?	N
APT	8/2026	APT-A Horticulture	?	Y

Resource Requests by Academic Year Needed

Academic Year	Action Item #	Resource Request
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2024 Hawai'i Community College ARPD
 Agriculture - AGR

AY24-25	1	1 - 4WD 12 passenger van
AY24-25	2	1 - APT-A Farm Coordinator/Farm Manager
AY25-26	1	1 - 4WD 12 passenger van 1 - 4WD UTV 1 - Zero turn mower
AY25-26	3	All items on comprehensive equipment list, to be provided by June 2025
AY25-26	4	1 - Faculty, Animal Science 1 - Faculty - Horticulture 1 - Instructor, Animal Science 1 - Instructor, Horticulture 1 - APT-A Animal Science 1 - APT-A Horticulture