

Sustainability Acton Plan – KSH

Kula Waena

Proposal: Raise chickens for the Papa ‘Ewalu Huaka‘i

Goal: Make our 8th grade huaka‘i food sustainable, where all of the food is locally grown our sourced.

Vision: Over 80% of our food resources are imported and only eight percent of our agricultural land is put into production for local consumption. In an effort to lessen our overall dependence on imported food, Kamehameha Schools can lead the way in island sustainability. The overall vision is that in a three-year time, all of our grade level trips can use locally sourced food and be zero waste, the initial steps into creating a more sustainable campus.

Project Description: Raise chickens for our Makahiki celebration dinner during our 8th grade huaka‘i. The chickens will be grown and processed on campus and then cooked in the imu on our huaka‘i. The chickens will provide several benefits to our schools curriculum, mala (garden) and sustainability efforts at Kamehameha.

Project Details Include:

1. Ordering 60 fast growing Cornish rock chickens from Stromsberg Chickens. Total cost (including shipping to Hawaii) for the chickens: \$191.51
2. Building 5 movable chicken coops. See attached plans. The VTT students will build the chicken coops.
3. Move and cover the aquaponics area away from the side of the building. Moving the garden will provide more access and functionality. The cover will be made of a transparent greenhouse material.
4. Expand the aquaponics area to increase production of the food source, azolla. Azolla is a fast growing water fern that can be used for animal feed.
5. Begin composting school lunches with the Black Soldier Fly (BSF) composting bin. BSFs will provide the primary source of feed for the chickens. Starting the composting bin will also cut down on the waste stream leaving the cafeteria.
6. Create a small fenced in area to house the school’s hot composting area. This area will be essential to process the waste stream coming from our cafeteria and create soil for our expanding mala. The chickens will occasionally be moved through the composting site to assist with turning (aerating) the soil and adding nitrogen.
7. Develop curriculum that will be taught through the 6-8th grade.
 - a. Hawaiian Language, 8th grade
 - b. Science, 6th grade: Soil & Sustainability
 - c. Science, 7th grade: Life Cycles and Systems
 - d. Science, 8th grade: Anatomy & Function
 - e. Math, 8th grade: Estimating & Calculating Productivity

Barriers & Challenges:

1. *Timing*: Completing all of the necessary steps to insure the chickens reach the appropriate size for harvest by November.
2. *Biology*: Understanding that all the components involved (chicken growth, azolla growth, BSF composting) are living systems and will need careful attention to insure they are balanced and healthy.
3. *Disconnected Associations*: Most of our students and staff are disconnected with where their food comes from and how it is produced. There is a slight yuck factor associated with processing and cleaning your food, breaking this barrier and the knowledge associated is a main component to the projects goal.
4. *Maintenance*: Coordinating the care of the facilities and area with the maintenance crews.
5. *Upkeep*: Coming in on weekend, staying late, and managing the days, so that the time inputs are not overwhelming for any one individual.

Stakeholders:

1. Students
2. Parents
3. Staff
4. Administration
5. Maintenance Staff
6. Cafeteria Staff
7. Community (County of Hawaii, CTAHR & UH Hilo Ag Facility, Ohana Greenhouse, Asplundh Tree Services, etc..)