

**Sustainable Agriculture Skill Panel Forum**  
**June 7, 2012**  
**Best Management Practices**

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**Discussion Outline:**

- I. Introductions: Why are we here?
  - II. Setting the Context Discussion:
    - a. What is the current state of communication between educational entities and the agricultural industry on best management practices?
    - b. What is the current state of labor and labor shortages affecting best management practices?
  - III. Preferred Vision in 10-20 Years: Best Case Scenario
  - IV. Develop Priorities
    - a. What are the opportunities or supporting forces that will move us closer to our best case scenario/vision?
    - b. What are the barriers or restraints that hold us back from moving closer to our best case scenario/vision?
  - V. Outline Actions for Priorities (time permitting)
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**I. Introductions: Why are we here?**

- Concerned produce farmers don't take food safety seriously enough; potable water
- Future workforce development
- Don't have a lot of young people going into farming; expensive inputs
- To provoke my thoughts; Hawaiian perspective of ahupua'a system; approach educators about Hawaiian culture and Hawaiian ways of doing agriculture; next generation to pay attention
- To hear from stakeholders and colleagues
- For the education system; to close the gap between education and the agriculture industry; need Future Farmers of America (FFA) in schools
- Workforce development to expand what we're doing and grow
- Seeing how agriculture can be developed for people reentering society; self-sufficiency
- To get information about agriculture; to improve labor data for employers
- To listen to the latest issues in labor and training
- Here to listen
- Here to hear about resources to provide to farmers
- To learn about ahupua'a systems to take back to Kauai
- To hear what's holding us back as an Ag community

- Hear what State has on food safety that might impact small farmers on Molokaʻi
- To listen about what has changed and hasn't changed over the years
- To see how college can make training more dynamic

## II. Setting the Context Discussion

### ***What is the current state of communication between educational entities and the agricultural industry on best management practices?***

- No communication link right now. The education system doesn't really know the needs of the industry and community, and there's no conduit. Students don't get excited about getting into agriculture; we're focused on the past. We need positions filled, but the communication is zero.
- Previously, agriculture was for troubled students. The DOE (Department of Education) needs to make agriculture an important industry.
- No formal avenue for communication.
- Need to show students that agriculture can be profitable.
- As an educator, I agree with all the gaps. Agriculture is a dumping ground, but agriculture is becoming "sexier". We should concentrate more in positive things. We need to catch young people at an earlier age, and include culture.
- Emphasize the Ahamoku system.
- There are no role models in agriculture for youth. We need to broaden the horizon of agriculture for youth. There are other jobs in agriculture (i.e., not just a farmer).
- There is a big fracture in Hawai'i's history and the Ahamoku system – children's identity – Islander [identity] – everyone plans for everyone. The culture, land, ocean, and resources are all connected.
- Technology in agriculture is sexy, but it doesn't teach you how to farm. We have to give kids skills not to be afraid of hard labor. The culture thing is missing; growing a crop is connected to what in the culture? It's not just about money.
- We do not have land for farming.
- Need to hook up people who want to farm with farm lands (people with agriculture lands).
- Molokaʻi is mainly agriculture and they have a high rate of unemployment.
- Workers need training with language issues so they can do it right even if the supervisor is not there.
- We're not teaching kids to relate to food. There are some school garden programs, but that needs to come into the mainstream.
- There are not enough programs in schools.
- The School Garden Network is connecting farmers on Maui to hold classes on the farm.
- Maui Farm Bureau has a program called, "Ag in the Classroom."

- “Ag in the Classroom” is a national program that puts farmers in the classroom to educate kids about agriculture and other skill sets. Teachers have so many other demands, so the program is voluntary.
- That program brought 70 students to Kahukuloa, to Kona (Makena side), and to Hana to teach students about the Ahamoku system (Maika’i group with Maui Community College).
- Some schools on the mainland require Horticulture classes. Hands-on experience is important.
- Kamehameha Schools does a good job of taking students out to farms, but there’s no farm to get hands-on experience.
- We haven’t been training farmers at the colleges/university.
- Apprenticeship programs are a huge gap. They need at least one year. There are no apprentice programs.
- Students that do go into agriculture do not have family backing. Agriculture needs to brag more. The kids in the agriculture program at Kekaulike High School are not going into Ag colleges because their families do not support it.
- Education starts from the family.
- Education in Hana is not good and the unemployment is high, but there is no desire to farm. There is no linkage with the only school in Hana between Education and Agriculture. There is no interest on the part of the school in agriculture or an apprentice program. Efforts to outreach to Maui Community College and the University of Hawai’i at Mānoa were not successful. Their common sense is most lacking.
- Observation skills are not taught to young students.
- Children are not taking over family farms. They are going to work for Monsanto.
- Is there any forum to hear from students?
- Distance education is a huge need.
- Teach kids vision and mission from a Hawaiian cultural perspective.
- Emphasizing Western ways vs. Hawaiian ways in education.

***What is the current state of labor and labor shortages affecting best management practices?***

- Our mechanization and technology are behind the times of other countries. There must be ways to bring technology to farms that will make agriculture more attractive and less back-breaking. We don’t have mechanization needed to grow agriculture.
- The prevailing thought in agriculture is that large-scale agriculture equals profitability. There are lots of small-scale farms on Maui that do this well, too. The big gap is related to how we farm.
- There are less farmers in Maui County, which has made it difficult for food safety. An audit is expensive because there is no third-party local auditor. There are not as many farmers trying to get food safety certified.

- We need to train laborers the correct way to farm for food safety standards. There are language issues for immigrant laborers (e.g., Samoan has many dialects). It's not just food, but other practices (i.e., flowers).
- Tracking programs for food safety.
- We need a program recognized by food purchasers.
- Kids aren't allowed on farms under food safety standards because of their personal hygiene (kids with diapers and animals = fecal matter).
- Gardens are not farms.
- Communication to retailers about differences in an island state.
- We need flexible laborers who are able to adapt.

### III. Preferred Vision in 10-20 Years: Best Case Scenario

***10-20 years from now, from a workforce development perspective, what is the best case scenario for assuring a workforce to support best management practices?***

- Mango trees in Kahului (more tress = less homes).
- All schools have agriculture in the curriculum. Required courses in agriculture to get kids exposed to agriculture throughout K-12. It should not be a choice of student, teacher, or principal. Choice comes at college level.
- Bring back Future Farmers of America.
- Each school supplies its own food to its cafeteria.
- Bring back farm skills in education (that kids used to learn at home on the farm). Provide hands-on experiences that kids no longer get at home (life skills, mechanics, agriculture, wood shop, etc).
- Hands-on experiences at a young age.
- Hawaii no longer imports food. Hawaii will export food (that is in abundance).
- Diversifying food crops.
- Diverse small farms and marketing models.
- Room for everyone; no fighting.
- Government incentives (tax credits) for farmers to assist with water or other resources.
- Subsidies based on best practices.
- Internships matched up with businesses, like marketing skills.
- More inputs produced and purchased locally.
- Tax credits for farmers who farm locally.
- Develop models that are subsidy-based for farmers that provide to local economy.
- Develop a labor force that earns enough money to provide for themselves and their families, take pride in their work, is healthy and well-paid with a better lifestyle.
- Entrepreneur workforce that is linked to other industries/sectors.
- Replace canned foods with fresh foods.
- Develop manufacturing side to support farmers and industry.
- Consumer education on food seasonality.
- Rewards to laborers for innovation.

- More participation/input from actual farmers; reach out to farmers.
- Resource Center developed for farmers as a “one-stop shop”, including: financing, land, etc.
- Diversify types of agricultural business (soil inputs, value-added, composting worms, etc); new businesses related to agriculture – supporting on the input side.
- Creating co-ops.
- Direct marketing – knowing how to do it or have markets available.

#### IV. Develop Priorities

<i>What are the <b>opportunities or supporting forces</b> that will move us closer to our best case scenario/vision?</i>	<i>What are the <b>barriers or restraints</b> that hold us back from moving closer to our best case scenario/vision?</i>
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#### Priority 1: Youth Education (Cluster “D”) (9 votes)

<ul style="list-style-type: none"> <li>• Lahainaluna model for inspiring young people to get into agriculture; the possibility to replicate at other Maui schools</li> <li>• Ma’o Farms model; farmers providing internships and apprenticeships</li> <li>• Infrastructure at UH-Maui; integrating agriculture into existing programs (distance learning)</li> <li>• Expand on Lahainaluna model to develop a more positive outlook for students through field trips</li> <li>• Creating a conduit for Future Farmers of America again</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture not part of the core curriculum</li> <li>• Funding for Future Farmers of America and other agriculture programs</li> <li>• Agriculture teachers in Future Farmers of America have a much heavier workload and same pay as other teachers</li> <li>• Secondary/post-secondary counselors don’t promote agriculture courses because they’re not a part of credit for college</li> <li>• Academic bureaucracy – incorporating agriculture into existing curriculum</li> </ul>
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**Priority 2: Entrepreneurship/Research & Development (Clusters “A” & “F”)  
(5/5 votes)**

<ul style="list-style-type: none"> <li>• Ma’o Farms model; farmers providing internships and apprenticeships</li> <li>• Economic education for general public on agricultural economics</li> <li>• Developing entrepreneurship programs by partnering with the Chamber of Commerce, UH/Maui Community College, etc., and looking at value-added markets.</li> </ul>	<ul style="list-style-type: none"> <li>• None identified</li> </ul>
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**Training (Cluster “C”)  
(4 votes)**

<ul style="list-style-type: none"> <li>• Farm Bureau Forums</li> <li>• Infrastructure at UH-Maui; integrating agriculture into existing programs (distance learning)</li> <li>• Programs/models like Rivertop Solutions’ Vet-to-Farmer to replicate statewide</li> <li>• Farmer negotiation/communication training</li> <li>• “Educate the Educator” program</li> <li>• Farmers developing curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• Farmers need to know the cost of production</li> <li>• WWOFFers/Americorp internships need to pre-screen interns</li> </ul>
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**Resources (Cluster “E”)  
(4 votes)**

<ul style="list-style-type: none"> <li>• Fallow land not available to farmers</li> </ul>	<ul style="list-style-type: none"> <li>• Fixed costs (water, electricity, etc.)</li> <li>• Acknowledging a pool of knowledge outside of academia</li> <li>• Not enough commercial kitchens or spaces with refrigerator space</li> </ul>
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**Networking (Cluster “G”)  
(4 votes)**

<ul style="list-style-type: none"> <li>Islands to network to share experiences/ideas (e.g., Kauai County sponsored farmers markets)</li> </ul>	<ul style="list-style-type: none"> <li>Farmers cannot work together to develop more co-ops, because of history</li> </ul>
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**Marketing (Cluster “B”)  
(3 votes)**

<ul style="list-style-type: none"> <li>Consumer awareness for local produce</li> <li>Farmers Markets – growing into authentic farmers markets (locally-grown; county sponsored)</li> <li>Value-added markets/products</li> <li>New markets (e.g., deer as meat)</li> </ul>	<ul style="list-style-type: none"> <li>Consumer doesn’t know what is locally-grown and what is not</li> <li>WalMart mentality (getting it cheap); need value-based system</li> <li>Farmers need to know cost of production</li> <li>Price fixing</li> </ul>
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**Regulations (Cluster “I”)  
(3 votes)**

<ul style="list-style-type: none"> <li>None identified</li> </ul>	<ul style="list-style-type: none"> <li>Regulations stopping kids from growing food to supply to cafeteria</li> </ul>
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**Physical Geography (Cluster “H”)  
(2 votes)**

<ul style="list-style-type: none"> <li>Replication of a similar model (Lahainaluna) in a different climate</li> </ul>	<ul style="list-style-type: none"> <li>Isolation; lack of choices</li> <li>Labor mobility due to isolation</li> </ul>
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**V. Outline Actions for Priorities**

**Priority 1: Youth Education**

- Develop curriculum to integrate agriculture into existing curriculum
- “No Child Left Inside”
- Infuse agriculture into K-12
- Market agriculture as a viable career choice
- Active Future Farmers of America programs in every school
- Teach child about agriculture by age 7
- Fix regulations so kids can eat what they grow

- Create a curriculum of indigenous agriculture at the University level and fund an indigenous agricultural specialist
- Expose children to commercial agriculture through more field trips, farmers in the classroom (and other agriculture occupations), and beyond food agriculture (such as urban landscaping)
- Develop more on-the-job training opportunities with private farmers and apprenticeships
- Work ethic/value-based education curriculum
- Agriculture competition for students

## **Priority 2: Entrepreneurship/Research & Development**

- Develop farmer mentors to support UHMC's new farmer network/sustainable tropical crop program
- More public/private partnerships
- Start identifying vacant lands to farms
- Connect hotels with landscaping
- More value-added agriculture competitions
- Connecting agriculture training with other trades/industries; inter-disciplinary
- Develop problem-based learning following site/farm visits
- Commercializing indigenous crops (breadfruit) and value-added
- Networking and seeking solutions outside of education institutes (on the farm)
- Work on developing cooperative Co-ops
- Change the way farmers see the market and expand the market (taxing imports)
- Look at new crops and learn how to market those crops
- Identify locally-grown to be product replacement (e.g., Eucalyptus for florists)
- Create the demand for new products by including in the local culinary and Nurserymen training
- Create permanent farmers markets (7 days a week) throughout the county
- Create farmer/community program to teach how to grow in the sand
- Highlight/publicize agricultural successes through the media; create an agriculture page in the newspaper
- Maui County Master Plan must include community gardens in subdivisions
- Support development of locally-sourced, sustainable farm inputs (e.g., bio-char, composting, soil amendments)
- Turning waste into value-added products
- Replicate the Rivertop Vet-to-Farmer pilot on Maui
- Create mechanisms for farmers to experience international farms; Ag tours for farmers
- Bring back the Body & Soil Conference and tours and fund it properly
- Speed up the permitting process; train farmers about new processes and regulations for permitting when the Governor signs the Bill.



## **VI. Parking Lot**

- Not enough space and land available because it's being used for housing, even though it is choice lands (fertile).
- Important agriculture lands (IAL)The counties must map IAL. We must map climate to understand what grows best where. We need to push Maui County to get the mapping completed.
- Audit/farm cost issue; multi-audits required.
- Rules on food safety are developed through Western farming; for Hawaii, these don't always fit.
- Tax on imported produce.
- Physical geography and resources always come out on the bottom of priorities.