

**Sustainable Agriculture Skill Panel Forum**  
**January 24, 2012**  
**Innovation & Sustainability**

Chair: Ron Keith

Facilitators: Lily Bloom Domingo, Diane Ley, and Jillian Yasutake

**Discussion Outline:**

- I. Introductions: Why are we here?
- II. Setting the Context Discussion:
  - a. Panel Chair's Overview
  - b. What is the current state of communication between educational entities and the agricultural industry on innovation and sustainability?
  - c. What is the current state of labor and labor shortages affecting innovation and sustainability?
- 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)

**I. Introductions: Why are we here?**

- To check it out (2)
- To learn new things
- See what everyone has to talk about
- See how it all plays in with Hawaii Community College
- Happy to see so many students here; hoping to find ways to make farming more sustainable because we can't get it all free
- Sustainability is key for youth to build and bridge the gap from what has been established
- Get more information on farming to increase my sustainability
- Ag and nutritious food
- Network and learn about local Ag systems
- I'm a professional farmer and I was asked to come
- Drop corporate [life] and return to the 'aina
- Learn what is coming up in the future in Ag
- See what you have to offer
- Insight on sustainability
- Learn what I can
- Learn about self-sustainability
- Learn about becoming a new farmer

- Learn from mistakes and past successes
- Learn about the needs of the Ag industry and to listen
- Learn about exporting and innovative crops of interest to others
- Make sure aquaculture was represented in the discussion
- Provide Ag data and support
- Support aqua/hydroponic farms in Puna
- Support sustainability farming in Hawaii to revive our health; we need quality food. Korean natural farming is very possible and sustainable with the available resources in Hawaii.
- I'm here to learn. It is important for everyone to have a home garden.
- Learn from others how we can change our way of farming; to be able to share with Pana'ewa farmers who are older and bring in the youth
- Meeting others in the same field ; to learn; and to collaborate
- This is a tremendous opportunity to network; learn about what's going on in Ag and spread the message about how energy is related to the Ag industry
- Listen and see where UHH can be a partner in Ag
- Provide information re: biomass/bioenergy; learn about workforce needs and opportunities
- Identify the DBEDT resources that are needed and available
- Listen, learn, and identify where and what federal resources might advance the industry
- Report on this discussion to the Governor
- To learn something
- To network
- Gather more information about sustainability and share it with the youth
- Bridge the gap to the younger generation of farmers
- Know what type of crops would grow best
- See how trees can be part of the Ag landscape
- Receive information on innovations and sustainability, and apply what I learn
- Learn how to create more jobs
- Listen, learn and see how we might apply federal resources

## II. Setting the Context Discussion

### *Panel Chair's Overview*

New technologies, ideas and innovation are critical components to the growth and expansion of this industry. Ecologically friendly and economically viable sustainability planning is equally vital to agriculture. Innovative support to traditional farming is also critical here.

- a. Farm Energy: Agriculture as Alternative Energy and Waste to Energy Initiatives
- b. Supportive finances and partnerships with banks, utility companies, etc.
- c. Non-Traditional Agriculture: diversification, value-added potential to crops.

- d. Feed and Fertility: options on “green” methods; making own fertilizers .
- e. Making Hawaii Island “food secure.” What will it take from each of us?

***What is the current state of communication between educational entities and the agricultural industry on innovation and sustainability?***

- Students want to know what classes they should take to get into the Ag industry upon graduation
- Certificate programs need to be developed for each Ag sector to tie into available jobs
- Good needs assessment of needed jobs and job skills
- Develop a marketing initiative, with a symbol or logo, to attract youth to Ag as a career
- The secondary school system is heavy on bureaucracy and presents barriers that limit the effectiveness of the effectiveness of the extensive community support that exists
- There are different farming operations and commodities, and thus different needs for learning, but the CTAHR Cooperative Extension workforce has been gutted
- Producers are so busy working they have little time to access information and Cooperative Extension Agents are bogged down in paperwork so they can’t get out to the producers
- Communication is just starting to occur and formalizing due to the Green “push”
- The pathway for Ag is unclear
- All parts of the Ag sector need to describe the skills that are needed
- More interaction between practitioners and farmers is needed
- UHH Ag Native Hawaiian federal grant is teaching freshman year students hydroponics and teaching a younger generation
- Extension Service has been gutted
- Need to teach the young people a work ethic and the Ag culture
- Creating designated areas for farm planners; 5-6 positions on Hawaii Island available through the Water Conservation Service

***What is the current state of labor and labor shortages affecting innovation and sustainability?***

- Working on training at Hawaii Community College
- Lack of Ag career tracks at lower levels of the educational system
- The Ag industry currently has limits for employment; most are self-employed
- Continuum of farming from small personal farming to commercial scale, and at what point do farmers start hiring?
- Understand the business continuum and what the market will bear
- Youth have the desire to engage in Ag, but access to land is a barrier
- Approach landowners as a group to request access to land

- Get youth experience in working
- Barriers to employment include healthcare costs, taxes, and minimum wage
- There is a hierarchy of employment; there are lots of workers, but most of them lack management skills
- Labor on small farms is needed on an intermittent basis and the benefits do not equate to other employment opportunities
- Our capacity to employ is low right now
- Is it a lifestyle or economic sustainability?
- Identify pockets where we can grow a market
- Small farmers using trade or a barter system instead of actual employment
- Making use of Goodwill's clients and people on welfare for potential laborers
- Employ students; youth need to develop their work ethic and this is a potential way to do this
- Barriers to wanting to employ someone
- Our economy is not focused on sustainability and self-sufficiency; we need to look at our philosophy and re-evaluate our outlook on self-sufficiency
- Immigrants aren't always the answer
- We have to think more broadly than food production Ag; there is energy Ag and other sectors of the Ag industry
- What kind of skill sets do farmers and employers need?
- The perpetuity of farms is in question; farmers are aging
- We need a hands-on Ag program to be developed at Hawaii Community College
- We need to address the work ethic required in Ag
- Finding a willing labor market
- More interaction between farmers and educational institutions
- Develop apprenticeship programs in Ag

### **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 an innovative and sustainable agriculture workforce?***

- Better integrated K-20 educational program in Ag
- Continuing education for farmers who can't take time off from farming
- Extension Agents who are accessible
- Go into grade schools and have elementary students interested in Ag by hooking them while they are young
- Farming is appealing
- Natural fertility and long-term leases have been created and are attracting a large workforce
- Ex-offenders' programs to teach them while they are in the prison system, as a tool to reintegrate them; the same programs for the homeless and other disadvantaged groups, like kids with ADHD

- Job Bank where farmers and employers can go to fill their needs
- Training program that is continuously improving to adapt to changing needs
- Interns on the farm; allows for sharing knowledge of experience and new, cutting edge knowledge
- Energy independent
- The job you want to do is an appealing career
- Ag is an easy, economical as possible career/business
- Every farmer creates their own fuel by distilling alcohol; the technology is available to supply farm operations and feed back into the grid
- Demand will be there for Ag scholarships and available financial resources for students
- Ag subdivisions are filled with family farms and children will know agriculture
- Value-added and locally grown products are cheaper than imported products
- Natural farming is integrated within UH
- Hawaii will employ the ahupua'a system
- Shared food and resources versus pay bills
- Hawaii Community College programs and departments will be integrated to produce the necessary workforce, e.g., Home Building program will include an Ag component
- More small farmers markets
- Alignment of a socioeconomic model of sustainability and self-sufficiency
- Entrepreneurs who also come up with ideas for value-added crops and products
- Ten 10-acre teaching farms that are closely integrated with education where students can learn a wide array of skills
- Registry of resource people to help educate
- Every high school student goes through some type of Ag education
- Internships for every high school student
- Marketing globally
- Best practices are established for Ag in Hawaii
- Producers are getting bigger piece of the sale price
- Institutions are supplied with local grown food resources
- Schools have farms on-site
- Cooperative certified kitchens are available to allow producers to create value-added products
- Best location to experience eco-tourism with food and Ag operations

#### IV. Develop Priorities

<p><i>What are the <b>opportunities or supporting forces</b> that will move us closer to our best case scenario/vision?</i></p>	<p><i>What are the <b>barriers or restraints</b> that hold us back from moving closer to our best case scenario/vision?</i></p>
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#### Networking, Education & Partnerships (B) (18 votes)

<ul style="list-style-type: none"> <li>• Talking and networking</li> <li>• Partnerships; developing nontraditional partnerships, e.g., Ag and Energy</li> <li>• Site-specific education and consulting</li> <li>• Technology is getting better; information has become more available due to technology</li> <li>• Localized efforts going on-island and integration within the schools</li> <li>• New markets opening, i.e., Japan, China, Korea</li> <li>• Producers are quietly devoted to sustainable Ag, but they need to be brought into the discussion and supported</li> <li>• Ongoing training location to serve as a place to go to as people need information</li> <li>• Road map/matrix of resources and information/education, and partnerships with public/private entities (asset map)</li> <li>• Lectures available on-line; consulting hands-on</li> <li>• So many educational resources to build upon CTAHR, UHH, Cooperative Extension</li> <li>• Statewide web access</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of coordinated effort/incentives for using the land in sustainable ways</li> <li>• Pro-active outreach by “Big Brother”</li> <li>• Lack of funding creates an unsustainable situation; funding for programs comes and goes</li> <li>• Lack of coordination among programs and resources</li> <li>• Lot of paperwork for Ag teachers</li> <li>• Insufficient funding for soil and water conservation</li> <li>• Lack of information regarding coordinating production, marketing and transportation</li> </ul>
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**Economic Incentives (H)**  
(17 votes)

<ul style="list-style-type: none"> <li>• Enterprise Zone provides tax credits for employment and construction work; need to educate about such programs</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of support and tax incentives for specific types of farming, e.g., organic</li> <li>• Lack of coordinated effort/incentives for using the land in sustainable ways</li> <li>• Land speculation is driving Ag lands away from farming and farmers</li> <li>• Farmers can't afford to hire employees</li> <li>• Too many WOOFers (Willing Workers on Organic Farms)</li> <li>• Lack of funding creates an unsustainable situation; funding for programs comes and goes</li> <li>• Availability of land</li> <li>• Economic constraints impact smaller producers</li> <li>• Interest rates are not competitive from government</li> <li>• Ag is not recognized as the best use of land</li> <li>• Banks aren't lending; high interest rates</li> <li>• Too short Ag leases to build successful farms</li> </ul>
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**Local Market (A)**  
(9 votes)

<ul style="list-style-type: none"> <li>• Chefs are buying local/supporting locally grown products</li> <li>• Strong marketplace</li> <li>• More open to buying locally</li> <li>• Communication and marketing value of local products</li> <li>• Increased Farmers' Markets and community supported Ag</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient marketplace due to small/isolated location</li> </ul>
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**Alternative Energy (G)**  
(5 votes)

<ul style="list-style-type: none"> <li>Localized energy production; going off the grid</li> </ul>	
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**Regulations (J)**  
(4 votes)

	<ul style="list-style-type: none"> <li>Lack of mediation between food safety and organic farming</li> <li>Ag is not recognized as the best use of land</li> <li>Department of Health does not recognize innovations in technology</li> </ul>
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**Health Orientation (E)**  
(3 votes)

<ul style="list-style-type: none"> <li>Population becoming more health conscious</li> </ul>	<ul style="list-style-type: none"> <li>Lack of consumer awareness regarding health and quality of production meats</li> </ul>
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**Value-Added Market (F)**  
(3 votes)

<ul style="list-style-type: none"> <li>Marketing value-added products</li> <li>Communication/Marketing value of local products</li> <li>New markets opening, i.e., Japan, China, Korea</li> </ul>	
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**Business Development (K)**  
(2 votes)

	<ul style="list-style-type: none"> <li>Scaling from small to large is a challenge</li> <li>The need to create products that reflect a positive value-add and land</li> </ul>
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**Ag Culture in Hawaii (D)**  
(1 vote)

<ul style="list-style-type: none"> <li>• Isolation</li> <li>• People going back to more traditional ways and methods due to the current state of the economy</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural values against efforts toward sustainability</li> <li>• Farming isn't "sexy"</li> <li>• Students do not have work ethic, they change job frequently, and they have no work experience</li> <li>• Lack of support for regenerative Ag that would attract a workforce seeking clean/regenerative Ag operations</li> <li>• Lack of positive perception that Ag is a sexy, positive, clean career</li> <li>• Lack of consumer awareness regarding health and quality of production meats</li> </ul>
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**Environment (C)**  
(0 votes)

<ul style="list-style-type: none"> <li>• Long growing season</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring native habitats are protected</li> <li>• Access to water</li> </ul>
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**Community Outreach (I)**  
(0 votes)

<ul style="list-style-type: none"> <li>• Inexpensive or free trees for planting</li> </ul>	<ul style="list-style-type: none"> <li>• Pro-active outreach by "Big Brother"</li> </ul>
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**V. Outline Actions for Priorities**

**1. Networking, Education & Partnerships**

- Roster of attendees here today distributed
- Resource person to coordinate
- Establish local natural farming facilities
- More technical training in new innovations in farming and alternative energy
- Island-wide broadband for everyone
- Partnering with the military to change their buying habits

- Resource location for meetings to access information
- Ag curriculum in K-12 schools
- Address regulations for food safety in schools, etc.
- CTAHR needs to increase the number of Extension Agents
- Ensure SWCD relationships in perpetuity
- Increase outreach
- Create partnerships between research and sustainable farmers
- Get ranchers and farmers on the Water Board
- Create a method to have 2 joint associations meeting (quarterly) to discuss workforce issues. (There are more than 2 dozen Ag-related associations; many farmers belong to 2 or more, but the associations don't meet jointly like a joint chamber meeting with the education sub-committee)
- CTAHR/UH develop informational and/or teaching videos to show on public T.V. Videos may show new technology in agriculture. Best practices in agricultural production? Natural Farming techniques?

## **2. Economic Incentives**

- Rebates for essential Ag operation needs
- Tuition waiver programs for technical trainings
- Decrease shipping costs
- Eliminate barriers to organic/green farming tax incentives
- Incentivize alternative energy; provide funds to get started
- Increase cost sharing by government to start up and incentivize producers
- Self-help programs and barter
- Identify local substitutes for imported value-added products
- Incentivize hiring of local graduates
- Teach farmers economics
- Positive reinforcement for producers who are following the rules
- Provide internships for students
- "County Share" for equipment
- Increase the number of Ag parks on state lands
- Incentives for those increasing the fertility of the land
- Free and affordable training
- Address bee/apiary problems and the need to restore our local bees