A Strategic Plan For Hawaii's Agriculture

Identifying Issues and Resolution

by

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INTRODUCTION
Agriculture is a vital component of Hawaii's economy. It provides Hawaii with a stage for tourism, export products for an otherwise service-oriented economy, a diversity of employment opportunities and lifestyles for its residents, and stewardship for its lands and water. Agriculture also provides environmental benefits, such as enviable air and water quality and recharge of our underground aquifers, and social benefits, such as preservation of our rural communities. Most important, diversified agriculture (crops other than sugarcane and pineapple) has made steady progress, increasing in value by an average of five percent per year over the past 20 years, despite the overall depressed economic condition of the state.

Agriculture also helps fulfill the mandates of Hawaii’s constitution. The Hawaii State Constitution, Article XI, Section 1 and 3, states:

"For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State....". Section 3 further states that “the State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands.”

Thus, the State of Hawaii recognizes the importance of agriculture in the realization of its vision of conservation, protection, and utilization of Hawaii's natural resources.

Agriculture's role in preserving the rural character and open space important to Hawaii's image is well recognized. Less understood is its role as a base industry for a bustling economy and as a provider of a healthy environment for the people of Hawaii.

Agriculture provided the foundation of Hawaii as we know it today. In contrast to the rest of the United States, where public funds were provided for the development of agricultural land, large corporate entities controlled Hawaii's agriculture in the past. Those private enterprises invested and developed much of the state’s present day infrastructure, ranging from vast irrigation and road systems to communities and worker welfare.

As large-scale corporate agriculture declined in the past decade, a perception arose that agriculture in general was declining—yet nothing could be further from the truth. Agriculture has not declined. Rather, its nature has changed. Instead of a few large operations controlled by a
few, we now have many smaller-scale, entrepreneurial ventures controlled by many. Successes and failures have occurred, but the overall result has been the creation of competitive and diverse businesses.

As the number of agricultural operations increases, mechanisms are needed that facilitate collaborative efforts to achieve common goals and enhance agriculture’s role in the state’s future. Crucial to agriculture’s success will be industry leaders who understand the industry’s vision, are able to communicate it, and can obtain support to implement needed changes.

Now is the time for the growing agricultural sector to come together and develop a set of common objectives. The mission of the Hawaii Farm Bureau Federation makes it the logical organization to take on the leadership role and become the leading advocate and voice for agriculture. Public and private entities have sponsored various conferences and developed plans for the future direction of agriculture. Using these conferences and plans as a guide, the Hawaii Farm Bureau has formulated a vision for agriculture. What is new in this vision are the diversity of the participants and the collective ownership of the product.

This is the second series of a “living documents” that comprise a strategic plan for Hawaii’s agriculture.

VISION
We envision Hawaii’s agricultural future to be one in which the priorities for both the private and public sectors include significant amounts of land in profitable agricultural production, maximum opportunities for export and import substitution, increased development of new crops and products, and enhanced marketing of both new and existing crops and products. Landowners, government, and the general population will be aware of the value and significance of agriculture in Hawaii.

We envision agriculture in the future being increasingly diversified, intensive, and technologically sophisticated in the recognition of ever-increasing competition and expansion of regulations intended to protect and preserve our natural environment.

We envision a dynamic private-public partnership in agricultural development. Under strong leadership, the public agencies will be supportive of agriculture with a focus on research, information dissemination, market development, and other support services. Production agriculture will be viewed as an integral part of Hawaii’s environmental stewardship. Federal, state, and county policies and regulations affecting agriculture will be assessed and streamlined,
eliminated, or redefined within the context of helping agricultural businesses without compromising public or environmental safety and health. In response to the public sector's recognition of agriculture's role, agriculture will organize itself into collaborative organizations to improve their competitiveness.

**PURPOSE**
The purpose of this plan is to evaluate the production, financial, marketing, and distribution problems and opportunities facing Hawaii's agriculture. The plan provides a roadmap to formulate a strategy to address issues hindering Hawaii's agriculture and to fully realize its potential. By identifying each issue, attention can be focused on reaching new or different solutions. This document is limited to identifying issues and resolutions. The means to implement these issues will be addressed in the next phase of the strategic plan.

Private sector motivation must be the driver to move these goals and objectives forward. Agriculture should not rely on government or others to determine its future. Government's role must be limited to providing the political, regulatory, and infrastructural support needed to enhance agriculture.

**MAJOR ISSUES AFFECTING HAWAII'S AGRICULTURE**
Implementation of our vision requires that the following major challenges be resolved. The following are suggested resolutions to be considered in developing an implementation plan. Issues are presented in alphabetical order and not in order of priority.

**Land**
Large tracts of land fallowed by plantation closures on all islands represent a tremendous opportunity to facilitate the growth of diversified agriculture. These lands are suitable for most soil-dependent agricultural uses. Constraints to growth of diversified agriculture are primarily the availability of arable lands in appropriate lot sizes with the accompanying infrastructure needed for a successful enterprise.

*Land issues include:*
* The DLNR agricultural lease program needs to be revised to encourage agricultural use of public lands. Examples of the concerns include:
• The current program discourages existing farm tenants from investing in and maintaining their farm operations because they do not know if their leases will be extended. All capital investments on the property are borne by the lessee but cannot be used as credits in the renewal process.

• The existing public land law creates serious uncertainty that existing farm tenants may be able to continue successful operations. For example, the requirement that a farmer who wishes to extend a 35-year lease must first secure a loan is unreasonable for the long-time tenant who has already built infrastructure. Also, a cap of 55 years limits the long term continuation of a successful operation.

* Agricultural lease rents need to reflect agricultural productivity.
* Productive agricultural lands are being rezoned for nonagricultural uses.
* The rezoning of agricultural land into other uses without requiring buffers creates conflict between farmers and the new, nonagricultural occupants of the land. Normal farming activities such as dust, noise, and smells bother occupants close to farms.
* State- and county-permitted uses of agricultural lands are very broad. Permitting low-intensity, nonagricultural, and recreational uses within agricultural zoning without buffers often creates conflicts and reduces productivity of adjacent farmlands.
* Land costs for new agricultural operations are too high.
* Trespass and theft laws are difficult to enforce.

**Resolutions to Land issues include:**

• Continued dialogue with the State DLNR to ensure that agricultural lease rents, tenure, exclusions, and incentives associated with state-owned lands are conducive to new and existing farm tenants. Discussion should also include how we can protect agricultural land from losing its identity as a resource and not a commodity.

• Continued dialogue with private landowners to encourage lease structures and rents that are conducive to all parties.

• Dialogue with government agencies to encourage financial and regulatory incentives to landowners and farmers for maintaining lands in agriculture.

• Work closely with the county government to develop their county development plans, tax codes, and ordinances.
Refine the agricultural industry’s position on the best methods of protect important agricultural lands (IAL). Focus on an incentive-based approach to keeping lands in agricultural use while directing development away from productive lands.

Maintain constant communication with law enforcement agencies and county prosecutors relative to agricultural trespass, theft, and liability issues.

Reinforce the rights of the farmer by promoting and reinforcing the Hawaii Right to Farm Act.

Water
Land cannot support agriculture without adequate, economical water resources. Plantation closures not only made available large tracts of agricultural land but also left behind extensive irrigation systems such as the Waiahole Ditch, Oahu; the Lower Hamakua Ditch, Big Island; the East and West Kauai Ditch systems, Kauai; and the Honokohau Ditch on Maui. Unfortunately, the closures have also left the water collection and distribution infrastructure decaying and falling into disrepair. This threatens the orderly transition from plantation operations to diversified agricultural enterprises.

In addition, recent regulatory and court decisions, e.g., those that support leaving water resources in their natural state rather than developing them for agricultural use, are threatening these agricultural water sources and systems.

There is continuous need for an efficient and equitable state policy for agricultural water. Profitability of existing enterprises as well as future expansion and success of the industry rely on the development of adequate sources of water suitable for irrigation and the allocation of that water at reasonable rates. Water development programs within the state must be planned with due consideration for actual and potential agricultural development. Similarly, water regulations in the state should support existing and potential agricultural development. There should be a balance between environmental interests and economic benefits.

Incentives are needed to help develop new sources and distribution systems and to maintain the existing systems. Water development has high capital costs and risk. Joint private-public development of water sources to serve agricultural production on adjacent and/or contiguous state and privately owned lands suited for agriculture should be encouraged.
Water issues include:
* Existing agricultural water ditch systems are in need of repair and maintenance.
* There is an inadequate supply of water at reasonable cost for agriculture.
* Regulatory, legal actions, and legal decisions will diminish the sources of economical water for agriculture.
* The cost of developing water resources is high.
* The state lacks a comprehensive agricultural water use plan.
* Agricultural water users have been affected by problems of water shortage, instream standards, drought, and diversion of irrigation water for urban use and are now also threatened by impracticable water quality standards.

Resolution to Water issues include:
• Research and pursue various funding mechanisms for the operation of existing and new irrigation systems such as water irrigation districts and the establishment of a separate overseeing authority for these water districts (similar to the Hawaii Community Development Authority for Kaka’ako); water cooperatives; etc….
• Evaluate the abandoned or closed plantation irrigation systems to support the transformation out of sugar and pineapple into diversified farms, and encourage the funding for rehabilitation of these irrigation systems and development of supplemental water resources including wells, reservoirs, and aqueducts where needed.
• Establish a water quantity credits system which will provide adequate water for agriculture similar to those that are being developed and used by the EPA for Air Quality credits on emissions from California’s industrial firms. This will become effective when farmers transition from flood irrigation to drip, sprinkler to drip, or reservoir to recycle, etc.
• Amend the State Water Code to specify that equal weight shall be given to economic as well as environmental concerns with respect to water.
• Participate in the EMI contested case hearing and support the continued use of East Maui stream waters for agricultural use.
• Re-assess and confer with legal expertise on mounting a legal challenge to the Ruling of the State Supreme Court on the stream restoration issue of the Waiahole Contested Case.
• Work with the Department of Health in developing environmental regulations that will provide agricultural operations with certain exemptions or exclusions as the case maybe from stringent EPA or Clean Water Act requirements that have no bearing for Hawaii’s situation. Also develop regulations to allow the use of treated effluent or reclaimed water over the underground aquifer; and work to reduce or eliminate costly and time consuming monitoring, testing, and reporting requirements for using such water for irrigation purposes.

• Work with the Department of Agriculture, Commission on Water Resources Management, the Congressional Delegation and the National Farm Bureau to adequately fund the development of the Agricultural Water Use and Development Plan for the State. Also have each irrigation system’s users provide adequate input during the review and comment periods on the Plan. Re-instate the active pursuit for the submission and certification of the Hawaii Drought Plan, Phase I by the U.S. Bureau of Reclamation (BuRec) to the U.S. Congress, as this will activate many drought related financial assistance under the BuRec’s drought authority. Further encourage the CWRM to actively pursue funding to prepare phase II of the Hawaii Drought Plan and submit for BuRec’s certification, so it may be sent to the U.S. Congress for acceptance.

• Encourage the efficiency and conservation of agricultural water resources including the development and use of drought resistant crops especially in areas with surface water resources and prone low rainfall regions. Work with CTAHR, HARC, and Soil and Water Conservation Districts to develop educational programs on conserving irrigation water for the crops being produced in these target areas and promote the benefits for installing such water conservation measures on individual farms.

• Organize a statewide water users committee to discuss and resolve issues of commonality.

**Environment and Food Safety**

Changes in societal concerns about the environment, healthier diet, and food safety require agriculture to transform its attitudes and practices regarding production, processing, and marketing. Stewardship practices must be implemented or enhanced to protect the soil, water, air quality, and even wildlife habitat. Public expectations have prompted farmers to expend more resources to rethink their crop protection, waste management, and soil conservation practices. Consumer preferences for diets that focus on health and wellness present opportunities for
market channels and production practices that meet this demand. Farming’s response to these concerns should take advantage of new market niches.

Global travel and trade make alien pest introductions a threat to local agriculture. Difficulties in implementing abatement measures point to the need to improve mitigation measures.

**Environment and Food Safety issues include:**

* Public concern about human and environmental safety will result in stricter controls of pesticide use.
* Food safety concerns will require new practices in growing, processing, and transportation of agricultural products.
* Because we have inadequate scientific data, there is uncertainty regarding which farm management practices will be required to comply with environmental regulations such as EPA's Total Maximum Daily Load regulation.
* Overlapping governmental regulations (federal vs. state vs. county) without coordinated and accessible guidance between agencies are problematic.
* There is the potential for exorbitant costs to meet environmental regulatory requirements.
* Farmers and ranchers will be increasingly vulnerable to other government regulations (i.e., Endangered Species Act, Right to Know laws, Clean Air Act, etc.) that may impact current practices.
* Farmers may be indirectly impacted by other regulatory controls. For example, they may face higher fuel prices and higher transportation costs due to changes in DOT rules.
* Farms and ranches are continuously faced with threats of new alien species and the control of alien species introductions.

**Resolution to Environment and Food Safety issues include:**

- Participate in all levels of regulatory development to ensure laws are applicable to Hawaii (a state made up of islands) and minimize regulatory impacts on the farm.
- Actively seek to have economic impact assessments as a component of all regulatory regulations.
• Promote and implement consumer and producer educational programs on agricultural stewardship and food safety.
• Seek and support data collection efforts to develop critical data needed to develop applicable compliance programs for EPA programs.
• Seek to minimize overlapping governmental regulations to minimize compliance costs.
• Utilize various communication means to increase industry awareness of various regulations.
• Educate regulators of agricultural operations to allow for informed decisions.

**Research and Development**

The University of Hawaii, College of Tropical Agriculture and Human Resources, the Hawaii Agriculture Research Center, the Hawaii State Department of Agriculture, and the U.S. Department of Agriculture Pacific Basin Agricultural Research Center must work collaboratively to expand their research efforts for agriculture with an emphasis on locally produced products. Priorities lie in the improvement of cultural practices for currently grown products, development of new crops and value-added products, improvements in processing procedures, and development of new postharvest systems that improve the transport and handling of products. New technologies such as biotechnology should be aggressively pursued to provide a competitive edge to Hawaii's agriculture in the market place. Public education is an important element in the development of any new technology to alleviate misperceptions and fears.

**Research and development issues include:**

* Identify ways to reduce cost of production (yield increase, input cost reduction, improved cultural practices, pest and disease resistance, etc.).
* Improve pathways for technology transfer to ensure that information is available to the farmers on a timely basis.
* Seek, develop, and provide education for new production and processing techniques.
* Improve coordination between industry requirements and research including market development vs. research of new crops.

**Resolution to Research and Development issues include:**
• Aggressively identify and implement means to increase State’s ability to carry out agricultural research capabilities.
• Form collaborative relationships with non-agricultural entrepreneurs to increase and encourage value added product developments.
• Organize systematic communication systems between research organizations and the agricultural industry.
• Develop collaborative relationships with other States and Countries to remain current with advancements in the field.
• Develop State and County policies that encourage Hawaii as a favored locale for agricultural research.
• Increase resources for agricultural research.

Marketing and Competitiveness
Hawaii's small size and isolated location provide challenges to the farmer in the global marketplace. Local markets are finite. Exports are a necessity. At one time, Hawaii enjoyed the lion's share of the market for pineapples, macadamia nuts, anthuriums, and other commodities. Foreign regions with similar climatic conditions began producing the same commodities. Considerable effort and funds were expended to develop these crops and their markets. Unfortunately, much of the technological information has been made available to our competitors, creating formidable foreign competition.

All of Hawaii's agricultural exports must be competitive in the world market. Existing costs of production require that Hawaii rely on uniqueness, quality, service, and image to be competitive. Exported Hawaiian products must not only be unique but should also be of high value. The industry must be entrepreneurial, responsive to change, and able to function under adverse conditions. Many challenges such as trade policies are beyond the farmer's control; however, the industry needs to find ways to mitigate these barriers.

Marketing and Competitiveness issues include:
* We need to develop systems for food and fiber self-sufficiency for the state of Hawaii.
* The cost of doing business in Hawaii is high. One example is the high cost of production inputs (i.e., feed, fertilizer, utilities, labor, and other supplies and equipment).
* Some of our products are of inconsistent quality.
* Quarantine requirements are restrictive for Hawaii products being exported to the U.S. mainland as well as foreign destinations such as Japan.
* Global competition pressures are increasing.
* Farming and commodity groups are fragmented due to lack of organizational leadership and coordination.
* Transportation costs are high for both import and export of agricultural products; inter-island shipping schedules are limited, as is cargo lift capacity out of Hawaii.
* Value-added options are limited for all of Hawaii's agricultural crops, especially for specialty crops.
* Available value-added options produce minimal profit margins because they lack sufficient certified processing capabilities.
* We have insufficient foreign market information and promotional efforts.

**Resolution to Marketing and Competitiveness issues include:**

- Foster organization of cooperatives to increase purchase and sales competitiveness
- Initiate dialogue with wholesalers and retailers to pursue import replacement opportunities.
- Develop programs to cultivate the development of value added products, reducing the reliance of direct raw product sales.
- Improve foreign market access information availability.
- Seek cross marketing, exports, and other opportunities to address transportation issues.
- Recognize agri-tourism activities as an integral part of agriculture.

**Transportation**

Hawaii's position as the world's most isolated location, as well as its being a series of islands, presents a major challenge to the state's agriculture industry: transport options for agriculture are limited to air and sea if one wishes to move commodities off an island. This limits growers' abilities to be competitive in the world market. Hawaii must find ways to overcome these barriers.
Transportation issues include:

* Airport and harbor facilities need improvements to meet new food safety laws and to ensure quality of perishable goods.
* Lift capacity out of Hawaii is limited.
* Airport and harbor consolidation facilities are inadequate to effectively hold and transport agricultural products.
* Inter-island transportation needs to be improved.
* Federal regulations limit the amount of surface and air transport of agricultural products between Hawaii and other U.S. ports.

Resolution of Transportation issues include:

- Seek dedicated freight carriers
- Amend the Federal Highway Act to include over sea transportation for island states and territories. This will increase funds for capital improvements to Hawaii harbors.
- Accelerate the development of consolidation facilities at the airports and harbors.
- Actively participate in the Hawaii Transportation Study, authorized in the 2002 Farm Bill.
- Amend the Jones Act or allow an exemption to allow foreign ships to provide services to and from Hawaii.
- Encourage the State or private firm to establish a ferry system for inter-island transportation.

Taxation and Fees

A basic tenet for government involvement should be to provide policies and incentives that support and encourage thriving business enterprises. There should be a taxation package that provides optimal inducement for entrepreneurs to invest in the transformation of Hawaii’s agricultural industry. This has the potential to provide key incentives to induce the private sector, but a favorable taxation package should not be the only incentive to encourage future agriculture development in Hawaii.
As regulatory burdens on agriculture increase, so do permitting fees as government agencies strive to be self-sufficient in their costs to do business. Regulatory compliance costs and permitting fees increase the cost of production and can significantly impact the productivity of new enterprises.

Taxation and Fee issues include:
* Hawaii’s general excise tax law creates a pyramiding of taxes that increases the cost of input and production. (Example: A farmer charges 0.5% to the wholesaler, the wholesaler charges an additional 0.5% to the stores, the stores will charge an additional 4% to the consumer, resulting in a net total of over 5%, if transportation taxes are added.) Some of the items purchased by the farmer are subject to the 4% tax.
* Taxation policies for fallow lands are not addressed in some counties, especially when in tree and fruit crops, which take 8 to 10 years to production.
* Certain agricultural practices that benefit society are nevertheless subjected to high permitting fees and regulatory costs. (Examples: Air permits and monitoring costs for burning of biomass to replace fossil fuel use; permitting and monitoring costs for wastewater reuse.)

Resolution of Taxation and Fee issues include:
* Reduce tax rates for long term producing crops (i.e. orchard farms, forestry, etc.) and other new crops that have potential in Hawaii.
* Protect agricultural lands from increased taxes due to development of adjacent land.
* Provide a tax break for landowners that improve their land for agricultural purposes. For example, if a landowner wants to make capital improvements (i.e. roads, utilities, irrigation systems, etc.) to attract farmers, they will get a tax break.
* Provide a real property tax and general excise tax break for lands dedicated for agricultural use for a minimum of 20 years.
* Educate the tax department to implement a biomass definition, supporting and encouraging biomass development in Hawaii.
* Establish a continuing education program to educate farmers of tax laws applicable to agriculture.
* Provide a retroactive payment for deferred taxes.
Farm Management and Labor

Agricultural enterprises continuously need an adequate supply of a properly trained labor force. Our vision of Hawaii's agricultural industry as an entrepreneurial, competitive industry requires a highly skilled, innovative work force. As the industry grows, private-public partnerships need to identify methods to aggressively start and/or nurture the development of successful agricultural and agriculture-related enterprises. National data show that 80 percent of enterprises developed under conditions such as an "incubation environment" are still in existence after five years, in comparison to only 25 percent for those that did not have such a benefit. Practical training, particularly in business and financial management, is critical for many independent farmers who may lack formal education in these subjects. The shortage of willing and able workers, affordable housing for farm workers, and competition from alternative employment are several of the pressing farm-labor related issues that need to be addressed.

Farm management and labor issues include:

* There is a lack of a training and support structure to begin and assist new agricultural enterprises.
* A qualified workforce must be trained to meet management and labor needs for expansion in the agricultural industry.
* Agricultural workers lack affordable housing.
* Transportation modes to get farm workers to and from work areas are lacking.
* Mandated labor costs (i.e., wages, workers compensation, unemployment, etc.) are high.
* Seasonal workers or contract hires are treated as regular employees.
* Alternative employment (manufacturing and construction) often pays its employees more than farmers are willing or able to pay.

Resolutions to Farm Management and Labor issues include:

- Intensify research in mechanization options.
- Develop employee education/job training programs to match employee abilities with wage rates to keep operations competitive.
• Determine the labor requirement for economic farm units of various commodities, and the aggregate labor demand by commodity.

• Labor resources should be increased, through the combined cooperative efforts of industry, labor organizations and government agencies involved.

• Dialogue with other business organizations and government to find ways of controlling regular business expenses (i.e. health and liability insurance)

• Encourage farmers to study their labor problems from the viewpoint of the hired employer and in terms of long-range solutions. Such effort should assure that working conditions and productivity are to the mutual satisfaction of both the employee and the employer.

• There should be continuing education programs that are specific to agricultural labor laws.

• Seasonal agricultural worker status must be redefined or reclassified by the federal and state as an independent contractor.

• Providing adequate housing, improving wages, working conditions, and developing sound labor-management relationships.

• Improve and encourage our public education system to provide technical and hands on experience in agribusiness.

CONCLUSION
Hawaii's economic health is currently in a precarious condition. The state's economy is assessed as one of the worst in the country, due primarily to the decline in the visitor industry, now exacerbated by the events of September 11, 2001. The state must build a diverse economy that has the capacity to buffer against downturns of individual industries. A balanced economy will arise from using Hawaii's unique assets in diverse ways. Complementary and synergistic use of resources will increase our ability to buffer against negative impacts of national and international events beyond local control. Agriculture is a means of obtaining economic benefit from Hawaii's natural resources.

The Hawaii Farm Bureau has prepared this “living document” to assist in improving Hawaii's agricultural industry. Some of these issues are currently being addressed. Some have short-term solutions while others require long-term efforts. We need to recognize these issues
and work diligently to resolve them as an industry. The next phase will be the most difficult as we move from identifying the issues and resolutions to the implementation stages.