DEPARTMENT OF AGRICULTURE ANNUAL REPORT

PURSUANT TO ACT 100, SLH 1999

Submitted to the 2003 Legislature

December 2002

DEPARTMENT OF AGRICULTURE GOALS

1. A statement of goals, including what the department or agency hopes to accomplish both short and long term.

   The mission of the Department of Agriculture (DOA) is to promote the conservation, development and utilization of agricultural resources in the State. More specifically, it is the Department's goal to develop an industry in which prime agricultural lands are fully utilized in profitable diversified crop and livestock production; opportunities for export competition and import substitution are maximized; and agribusinesses involved in the production, processing, distribution and marketing of agricultural commodities are competitive in a changing global market.

   The mission of supporting an expanding agricultural sector is essential to the overall viability of the State's economy. Agriculture in Hawaii currently generates one-half billion dollars in farm-gate revenues annually and provides thousands of jobs statewide. Recent findings indicate that when the economic value of other agriculture-related industries is considered, the total value of agriculture jumps to nearly three billion dollars a year and provides approximately forty-two thousand jobs statewide. In addition, Hawaii agriculture contributes to a desired physical environment for both residents and visitors and promotes economic as well as social well-being in rural districts across the State.

2. Objectives and policies, specifically setting forth how each goal can and will be accomplished.

   The objectives of the department are as follows:

   a. To facilitate the growth of existing & new agricultural products & by-products for local & export sales.
   b. To help increase the availability of the resources required for agricultural development.
   c. To promote beneficial effects of agriculture on the environment & prevent or minimize its adverse impacts.
   d. To improve compliance with laws & rules & provision of certification services.

   The department embraces the following policies to achieve its objectives:

   a. The department will serve as an advocate and leader for agriculture.
   b. The department will coordinate and facilitate strategic public and private sector alliances.
   c. The department will provide services essential to industry growth.

d. The department will emphasize problem identification to narrow departmental focus to critical industry issues.
e. The department will promote an integrated approach to problem solving to take full advantage of the diversity of in-house expertise and to maximize departmental impact.
f. The department will develop new initiatives designed to stimulate agricultural development.

The department has established "Hawaii Farm Value Targets for Selected Diversified Commodities for the Year 2005" that contains commodity value targets and focuses on exploiting opportunities and identifying and resolving the roadblocks impeding expansion of each commodity group. This effort is a continuation of the department's "Agriculture 2000 Goals".

3. An action plan with a timetable indicating how the established objectives and policies will be implemented in one, two, and five years.

   Programs have updated their five year plans identifying priority goals and objectives, explaining how they intend to meet their goals and objectives, and establishing baseline data, future targets, a timetable to meet these targets, and a means to evaluate progress in meeting targets through benchmarking.

   Attached are their updated five-year action plans to meet the department's overall mission, goals and objectives.

4. The process that the department or agency will use to measure the performance of its programs and services in meeting the stated goals, objectives, and policies.

   The department will evaluate how well the programs meet their priority goals and objectives by reviewing their success in meeting their targets by the planned timetable. Evaluating Agriculture 2000 benchmark outcomes is another tool that will be used to determine departmental effectiveness. For example, if a certain commodity group reaches its benchmark goals, it would indicate that the total effort, including DOA assistance, was successful. Conversely, if a particular commodity group fails to achieve its stated goals, the industry's situation would need to be reassessed and the Department's efforts reevaluated. It should be pointed out, however, that the attainment of benchmark goals is a collective effort that includes the Department's assistance as only one of many variables.

   The department's "Agricultural 2000 Goals" ended in December 2000. In the final evaluation, Hawaii's agricultural industry attained 99.7% or $102.8 million of the $104.3 million increase in crop values targeted for by this final year. This is an annual growth rate of 4.33%. Five crops (fresh pineapple, coffee, seed crops, flowers, nursery and aquaculture) exceeded 100% of their respective target values while four others (vegetables/melons, other fruits, taro, and other crops) exceeded 90% of their respective

target values. Despite the fact that most of the 14 selected crops experienced ups and downs during the five-year period the attainment of the Year 2000 Goals is testament to the overall strength of Hawaii's agricultural industry. While modest in comparison to the visitor industry's $11 billion in economic activity, the $458.8 million generated by diversified agriculture (including fresh pineapple) is solid, steadily increasing, and more than offsets the continuing decline in sugar production.

Preliminary statistics for 2001, the first full year of the 2000-2005 farmgate value targets, indicate a negative annual growth rate of 0.01%, or a loss of $5.6 million. Modest gains in vegetables and melons, and macadamia nuts were offset by significant declines in pineapple ($4.8 million loss) and coffee ($3.5 million loss) and smaller losses in other fruits, cattle, eggs, and milk. without including fresh pineapple, the farm value for traditional diversified agricultural crops increased for the tenth straight year. Continuing in decline is raw sugar production, however, we expect a reversal on the strength of the two remaining sugar companies.

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division/Branch: Agricultural Loan

Program Objective: To promote the agricultural and aquacultural development of the State by stimulating, facilitating, and granting loans to qualified farmers.

Priority Goals & Objectives

Dept'l Objectives Being Pursued: To facilitate the growth of existing and new agricultural products and by-products for local and export sales.

Goal: Increase loan activity.

The Division intends to play a pro-active role in financing both agriculture and aquaculture ventures. Timing is opportune as agricultural diversification, growth and establishment is in its infancy. The Division recognizes that it can play a significant role in this growth. It is envisioned that these activities will enhance the number of loan requests. The Division's goal is to make approximately 150-200 loans totaling $15-$20 million by 2007. These loans would be provided for a host of purposes. In some cases the loans can help farms expand, while in other situations the loans can help farms become more efficient, survive unforeseen disasters, or even sustain existing levels of operation.

While diversified agriculture expands, agriculture is often viewed as a relatively risky industry. In addition to the normal business risks such as economic conditions, competition, and governmental regulations, agriculture faces added risks that include natural disasters like drought, floods, and high winds, as well as diseases and pests. Often times these added risks preclude loans from conventional commercial sources. The Agricultural Loan Division bridges this financing gap when conventional lending sources are unable to provide funding independently. To this end, the Division cooperates with conventional lenders to minimize their risks through insured and participation loans. Alternatively, the Division provides direct funding to borrowers that have been denied loans from conventional sources and that meet the program's eligibility requirements. While attempting to meet the goals, the Division will continue to consider all applicants meeting the necessary eligibility and underwriting criteria. At the same time, the Division will seek to generate loan activity through participation and insured loans with private lenders, and through direct loans. A planned outreach program and a plan to secure sources of funding are an integral step toward stimulating activity. Success of achieving the goals indicated below is dependent upon resources, the prevailing

business/economic conditions, and the private lender's willingness to work in partnership with the Division in funding agricultural loans.

Timetable to Complete Project

Identify Target/Task *	FY 03	FY 04	FY 05	FY 06	FY 07
Target of 30-40 loans.	X				
Target of $3.0-$4.0 million in direct, participation and insured loans.	X				
Target of 30-40 loans.		X			
Target of $3.0-4.0 million in direct, participation and insured loans.		X			
Target of 30-40 loans.			X		
Target of $3.0-$4.0 million in direct, participation and insured loans.			X		
Target of 30-40 loans.				X	
Target of $3.0-$4.0 million in direct, participation and insured loans.				X	
Target of 30-40 loans.					X
Target of $3.0-$4.0 million in direct, participation and insured loans.					X

* For each year, it is estimated that 65-75% of the number of loans made and the dollar amounts loaned will consist of direct loans, while the remaining 25-35% of loans and dollars loaned will consist of participated/insured loans.

Presently, the State is experiencing the rebirth of agriculture. With the closures and/or downsizing of most of the State's sugar and pineapple operations, prime agricultural land, water and labor is available. Entrepreneurs are taking advantage of this window of opportunity to diversify and expand agriculture and aquaculture. These entrepreneurs come from diverse backgrounds. Many are immigrants and do not have a good command of English. Some are seeking a rural farming lifestyle. Others have obtained education and/or experience in agriculture and are desirous of continuing their livelihood in agriculturally related fields. Still others have farmed most of their lives, while others see an opportunity to enjoy the fruits of an open market economy. This influx of farmers has created an information gap in regards to sources of financing at reasonable rates and terms.

Adding to this information gap is the recent and ongoing restructuring at many local financial institutions. Many of the personnel employed by the private financial sector are no longer in their former positions. New personnel may lack the expertise in agricultural and/or aquacultural lending and may also be uninformed as to how the Division's programs may assist their borrowers as well as their employer. This has contributed to the reduced number

of requests for the program's participation and insured loan facilities. Compounding this information gap is the numerous program changes that have occurred within the past 5 years.

To address this information gap, the Division is developing and implementing a multi-pronged outreach program. This outreach will educate potential and/or prospective borrowers, and potential and/or prospective private lending institutions on the various loan facilities and how they might benefit the producer as well as the private institution.

The Division has developed a broad spectrum of informational material for dissemination. Materials are being prepared in-house using available technology and will allow for expedient modifications (if required) at low cost. These include but are not limited to brochures, fact sheets, etc.

Key personnel at private lending institutions are being contacted to arrange visits and appropriate presentations. Regular branch visits will also be initiated. This rebuilding of relations is an integral step toward increased activity regarding participation and insured loan facilities. It can also lead to more direct loan referrals, as applicants that are ineligible for participation or insured loans may be directed by the private lenders to the Division for consideration.

The Division also is spotlighting the program via avenues such as the Department's web site and press releases.

Commodity and association group meetings will also continue to be arranged. It is intended that program personnel not only provide educational information regarding the program, but to meet the producers and get a prospective of problems they have encountered in the financing area.

The Division sees the outreach program as a dynamic and evolving process. The Division will continually assess the outreach program to make amendments or modifications as needed. To reach the goals indicated, the Division does recognize that as a lender of last resort, certain restrictions are in effect and need to be considered. For example, unless allowed by legislative mandate, the program cannot compete with private lenders. Recognizing program restrictions, however, the Division does recognize that certain specific problems encountered by producers will need to be considered and addressed when appropriate, including drafting of legislation for the situation.

As a self-sufficient entity, the Division operates from its own revolving funds. The Agriculture Loan Revolving Fund and the Aquaculture Loan Revolving Fund are used to provide needed financing to qualified entities. Moneys repaid are re-deposited into these accounts to be used for future approved loans. From interest collected, the Division funds all of its operating costs.

Much of the surpluses formerly in these funds were returned to the General Fund. Current balances in both funds may not be adequate to address future needs. In the event loan funds

become scarce, the Division will possibly need to scale outreach activities to match funding availability. This is as the Division would like to avoid generating loan requests without being able to provide the necessary funding.

Three areas will be focused on. These include concentrating on collection efforts, encouraging private lending institutions to fund loans through participation and/or insured facilities, and securing general fund appropriations.

Collection efforts are ongoing. Continued oversight in this area will continue. Through outreach activities and the rebuilding of relationships with other lenders, the pool of financing for agriculture can be increased. The Division will diligently monitor revolving fund balances to ensure adequate loan financing levels and as a last resort seek additional funds through general fund appropriations.

Timetable to Complete Project

Identify Target/Task	**FY 03**	**FY 04**	**FY 05**	**FY 06**	**FY 07**
Refine informational material.		X			
Contact/meet/revisit with 20 or more bank representatives situated in areas with substantial agricultural/aquacultural activity annually.	X	X	X	X	X
Arrange/attend 3 or more commodity/association/industry group meetings annually.	X	X	X	X	X
Program promotion via Internet, Farm Bureau newsletters, commodity association newsletters annually.	X	X	X	X	X
Step up collection efforts.	X	X	X	X	X
Outreach program to attract and increase participation and/or insured loan activity.	X	X	X	X	X
Monitoring of revolving funds to determine adequate financing needs.	X	X	X	X	X

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division, Branch: Plant Industry Division, Plant Quarantine and Plant Pest Control Branches.

Program Objective: To protect Hawaii's agricultural and horticultural industries, natural resources, and general public by preventing the introduction and establishment of harmful insects, diseases, illegal non-domestic animals, and other pests; to conduct effective plant pest control activities; and to enhance agricultural productivity and agribusiness development by facilitating export shipments of agricultural and horticultural materials and products.

PRIORITY GOALS AND OBJECTIVES:

Department Objective Being Pursued: To facilitate the growth of existing and new agricultural products and by-products for local and export sales.

GOAL 1. Increase nursery production by 25 % in 5 years.

Nursery production of cut flowers and market-ready-foliage and flowering plants is one of the fastest growing segments of diversified agriculture in Hawaii. The combined farm gate value was in excess of 75 millions dollars in 1999. At the same time, export nursery production is a highly competitive worldwide business. Hawaii's advantage is name recognition, nearly perfect weather and microclimates for specific production, ready access to an ideal growing media (i.e., volcanic cinder), ample water and land, and strong industry, University and regulatory support for sustained growth. Growth is essential for the stability of the industry. Stagnation will result in loss of export opportunities and shrinkage as competing producing areas gain access to cultivars, technology, and transportation routes to common markets. A 25 % growth in the industry is attainable and can be exceeded with industry government and University support to address bottlenecks to growth.

TIMETABLE TO ACCOMPLISH GOAL 1:

1. Designate Division Coordinator to spearhead initiatives in Plant Industry Division to address quarantine, plant pest control, production, and marketing needs of the industry. Establish goals, target objectives, and timelines for Division coordinator.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Identify bottlenecks	X	X	X	X	X
Develop strategic plans	X	X	X	X	X
Evaluations	X	X	X	X	X

2. Increase quarantine greenhouse space to meet industry import requirements.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Identify alternative(s)	X				
Pursue alternative(s)	X	X	X	X	X

3. Increase inspection and certification activities to meet needs of growth industry.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Conduct Pest Risk Assessment	X	X	X	X	X
Reallocate resources	X	X	X	X	X

4. Identify Quality Assurance and Control Programs needed to meet receiving state/county quarantine requirements for reduced inspection at destination or lesser quarantine action should a pest be found.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Identify industry needs	X	X	X	X	X
Design pilot program	X				
Implement pilot program	X				
Participation Percentage		5	15	15	30

5. Obtain Japan approval for potted anthuriums export to Japan.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Negotiate approval	X				
Initiate quarantine production		X	X		
First test shipment		X	X		
Full commercial shipments			X	X	X

6. Open new markets for Hawaii tissue culture plants to grow out and distribute in destination markets. Target Japan for initial effort (i.e., specifically, Okinawa). Potted anthurium plants from Hawaii are currently prohibited entry into Japan as a result of a citrus burrowing nematode quarantine (Radopholus citrophilus). Tissue cultured anthurium for grow-out is the targeted market. In FY01, Japan approved Hawaii's request to allow entry of tissue cultured anthurium plants.

Identify Target/Task	**FY03**	**FY04**	**FY05**	**FY06**	**FY07**
Negotiate agreement with Japan	X	X			
First test shipment		X	X	X	
Commercial shipments	X	X	X	X	X

7. Establish Origin Inspection Program for potted plant shipments to California to reduce/establish need for quarantine inspection at destination and more orderly marketing of products. Hawaii has approximately 361 burrowing nematode certified nurseries approved to move plants into California. Some growers are expected to abandon the California market as a result of quarantine restrictions. Better nurseries will hope to qualify for OIP certification programs.

Identify Target/Task	**FY03**	**FY04**	**FY05**	**FY06**	**FY07**
Negotiate agreement	X	X			
Initiate pilot program		X			
California inspection of nurseries		X	X	X	X
Participation Percentage			2	6	15

8. Register pesticide products for use on greenhouse and ornamental foliage and flowering plants.

Identify Target/Task	**FY03**	**FY04**	**FY05**	**FY06**	**FY07**
Identify priority needs	X				
Seek funding support		X			
Conduct efficacy studies		X	X	X	X
Submit registration data			X	X	X
New product registrations			X	X	X

9. Work with marketing group to increase export demand for Hawaii nursery products. The initial step is to develop an industry support strategic plan and to target increased sales in selected markets with industry and state resources focused to open the new markets. Work with growers to expand production to sustain distribution in selected markets, e.g., Japan and markets beyond California into the Midwest and East Coast.

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Identify priority markets	X	X	X		
Test shipments		X	X		
Evaluation and new promotion		X	X	X	X

GOAL 2: Develop and implement an Agricultural Quarantine Inspection Monitoring (AQIM) program in Plant Quarantine Branch.

One of the mandates of the Division of Plant Industry, Plant Quarantine Branch, is to prevent the introduction of harmful pests and diseases into the State. This is accomplished through the inspection of all agricultural materials for hitch hiking pests. Certain agricultural materials have a higher risk of harboring these pests than others. The AQIM program will involve the random sampling of materials entering the State for statistical analysis of pathway risks for the introduction of pests and diseases. AQIM data collection will need to be carried out for at least five years in order to account for differences in seasons. The database will be used to redistribute personnel to assure highest priority is given to the high-risk point of entry of pests into the State.

TIMETABLE TO ACCOMPLISH GOAL 2:

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Personnel training	X	X	X	X	X
Evaluation and reallocation	X	X	X	X	X

GOAL 3: Reduce the entry of noxious and obnoxious weed seeds into Hawaii by 25 %.

Weed seeds enter the State via foreign and domestic commercial seeds. Program inspects foreign seeds but not domestic seeds. Goals will be achieved by increasing the number of inspections (primarily domestic seeds) and taking regulatory action.

The tasks involved are to determine baseline on the number of noxious and obnoxious weed seeds intercepted in foreign seed inspections; identify primary pathways that noxious and obnoxious weed sees enter the State; conduct inspections on pathways identified in above and take appropriate regulatory action; and utilize information developed about the pest risk assessments, prioritizing inspections, establishing new rules and policies and education programs.

TIMETABLE TO ACCOMPLISH GOAL 3:

Identify Target/Task	FY03	FY04	FY05	FY06	FY07
Identify pathways	X	X	X	X	X
Inspections and enforcement	X	X	X	X	X
Program modification		X	X	X	X

GOAL 4: Facilitate the growth of the seed industry in Hawaii by providing seed certification services to the industry in Hawaii.

The ability for Hawaii and seed producers to guide the development of the seed certification program in Hawaii has been constrained by the dependence of the industry on the services of mainland seed certification organizations (i.e., Illinois and Iowa Seed Certification Programs). The PPC Branch has developed inspection guidelines for seed certification and will ask the American Association of Seed Certification Associations (AOSCA) for accreditation as the seed certification agency in Hawaii. AOSCA has accredited the Hawaii program (August 2000).

TIMETABLE TO ACCOMPLISH GOAL 4:

Identify Target/Task	**FY03**	**FY04**	**FY05**	**FY06**	**FY07**
Develop new rules	X	X			
Promote self-certification	X	X			
Initiate certification by industry			X	X	X

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division/Branch: Animal Industry/Animal Quarantine

Program Objective: To prevent the introduction of rabies and animal diseases in imported dogs and cats through quarantine, import regulation and the detection of alien pests and diseases.

Departmental Objective: To improve compliance with laws, rules & provisions of quarantine.

Program Goal 1. To reduce the hardships imposed on owners and their pets by simplifying the quarantine requirements for dogs and cats entering Hawaii.

The role of the division is to operate the animal quarantine station in an efficient, humane, cost effective manner and recommend changes to the quarantine program based on sound scientific principles and reasonable considerations.

Hawaii is the only rabies-free state in the United States. Prior to 1997, all dogs and cats were confined at the animal quarantine station for 120 days to reduce the risk of rabies introduction. The length of the confinement period was based on recommendations of the Expert Rabies Committee, World Health Organization. In 1996, confinement alternatives were sought to address the hardship of 120-day quarantine on pets and pet owners, resulting in the implementation of a 30-day quarantine alternative in 1997. During 1998, guide dogs for the blind were exempted from quarantine if specific pre- and post arrival requirements were met. This exemption was extended to other classes of service dogs during 2000. All other dogs and cats entering Hawaii, except from designated rabies-free areas, are required to undergo either 30- or 120-day quarantine.

The complexity of the 30-day quarantine qualification requirements and cost of quarantine have emerged as concerns for some quarantine users. Simplifying Administrative Rules without increasing the risk of rabies introduction has been an ongoing process. Changes supported by the department during 1999 included: allowing additional categories of service dogs to enter the state without quarantine; removing the requirement for a "designated address" for service dog users; eliminating the 90-day post-quarantine observation period; eliminating certain pre-entry requirements considered irrelevant with respect to rabies exclusion; reducing the minimum interval between pre-entry rabies vaccinations from six months to three months; allowing electronic microchips to be obtained from sources other than the State; and simplifying the requirements for performance and working animals. These recommended changes were adopted by Rule and implemented during 2000.

The division completed a comprehensive Rabies Import Analysis during FY 2002 to examine other quarantine options. Risk analysis results confirmed that a reduction in the animal confinement period in itself increased the risk of releasing a rabid dog or cat into the community. However, the increased risk associated with reducing the animal confinement period can be offset by increasing the pre-arrival waiting period between a successful rabies blood test and entry. Amendments to Chapter 4-29, "Dogs, Cats, and Other Carnivores" that provide for a 5-day quarantine option in conjunction with a 120-day waiting period from a successful pre-arrival serologic test until entry (compared to a 30-day confinement with a 90-day pre-arrival waiting period currently in place) were approved by the Board of Agriculture to proceed to public hearings. In addition, based on quarantine laws recently implemented in Guam, the division recommended that Guam be designated as rabies free for the purposes of Hawaii's quarantine. This change will allow dogs and cats from Guam to enter Hawaii without quarantine. Administrative Rule changes, including a reduction in the quarantine period, must be consistent with the program goal of maintaining Hawaii's rabies-free status and public input is a critical component of the overall process.

Currently proposed changes to the quarantine program will likely be implemented during FY 2003.

The performance measures that will be used to assess the progress toward the Goal are the amendments to Chapter 29, *Dogs, Cats, and Other Carnivores*, Hawaii Administrative Rules, relative to 2000 requirements.

Timetable to Complete Project

Identify Target/Task	**FY 03**	**FY 04**	**FY 05**	**FY 06**	**FY 07**
1. Minimum quarantine (days)	5	5	5	5	5
2. Maximum quarantine (days)	120	120	120	120	120
3. Service dog rules amended		X			
4. Service dog rules implemented			X		
5. General rules amended	X		X		X
6. General rules implemented		X	X	X	
8. Reduced confinement period amended	X				
9. Reduced confinement period implemented	X				
10. Guam designated as exempt area	X				

X Projected Year for Completion

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division/Branch: Animal Industry/Livestock Disease Control & Veterinary Laboratory

Program Objective: To assist in the development of livestock and poultry industries through pest and disease detection, control and prevention.

Departmental Objective: To facilitate the growth of existing and new agricultural products & by-products for local & export sales.

Program Goal 1. To facilitate growth of market cattle, market hog and egg farm value at an average rate of two percent per year for cattle and one percent per year for hogs and eggs for calendar years 2003 through 2007.

The Hawaii livestock and poultry industries, which include primarily small to medium size business enterprises, are important to Hawaii's economy. The total on-farm value of cattle, hog and egg sales was $32.19 million (cattle $18,007,000; hogs $4,546,000; eggs $9,640,000) for CY 2001, a decrease of 6.1% compared to CY 2000 (cattle $19,204,000; hogs $4,425,000; eggs $10,636,000). Cattle, eggs and hogs ranked 7, 10 and 18, respectively in the top twenty Hawaii agricultural commodities for CY 2001. Eggs dropped one place relative to the 2000 commodities rankings.

The department's Quality Assurance Division provides assistance to the milk industry (farm value $26,546,000 for 2001). Considering milk, the total farm value for all livestock and poultry products was $58,736,000 for 2001. Only pineapple ($96,337,000) had a higher value of production.

For many cattle producers, the main source of income from cow-calf operations is the sale of weaned calves, grass finished steers and heifers, and spent cows and bulls. The number and weight of cattle sold, and the price per unit-weight received determine farm value. Individual producers have no control over market price fluctuations. In 1995 and 1996, prices received for weaned calves were at the lowest point for the current market cycle but the trend in beef prices has been upward for Hawaii producers. The farm price for Hawaii cattle and calves increased by 18.5% in 2001 to $57.10 per hundred pounds live weight from $48.20 per hundred pounds live weight in 2000. Nationally, retail beef prices were adversely impacted for a short time after September 11 (foodservices) and by Japan's BSE crisis (exports).

During 2001, the total Hawaii inventory of cattle and calves (152,000 head) increased by 1% from 2000 levels. Dry conditions in most major grazing areas kept available forage supplies low forcing cattlemen to reduce herd size over the past several years. A break in the Hawaii drought during fall 2001 reversed the trend as forage increased on pasture. Although

inventory was slightly increased, total marketings decreased by 14,000 head (19%) over 2000 levels, accounting for reduced farm gate value for cattle. The bulk of marketings continue to be exports of cattle to the west coast of the United States. The Hawaii 2001 calf crop is estimated to be 3,000 (5%) below a year ago and this decrease may be reflected in future marketing. On a national level, cattle inventory declined one percent.

During 2001, hog inventory increased by 1,000 head (4%) from 2000. On a national level, hog production decreased one percent. For market hogs, the persistence of nationwide low prices have affected the industry adversely over recent years and are responsible for a significant number of US swine producers quitting business. However, Hawaii farm prices increased from $79.30 to $83.80 (+5.7%) per hundred pounds live weight for 2000 compared with 2001. Market hogs in Hawaii are either locally produced or imported into the state for immediate slaughter. Locally produced pork represents an important “ethnic” commodity.

Hawaii egg producers are in direct competition with US producers for Hawaii markets. A major determinant for the price obtained by the producer for local eggs is the cost of imported eggs purchased by major supermarkets. Egg production decreased from 143 to 128 million eggs (-10%) from 2000 to 2001 and farm value for eggs dropped 9% compared to 2000. Decreased egg production was a result of fewer layers on hand on average (-8.6%) and a decrease in the average percent lay-rate from 61.3% to 60.2% for 2000 and 2001, respectively. The reduction in the number of eggs produced per hen mostly was a result of retaining older laying hens and hot dry climatic conditions creating additional stress and an unfavorable laying environment. United States egg production increased 2% over the same period.

Achieving the goal of increased production requires the consideration of many variables, few of which can be significantly influenced by the division. Expansion is primarily market driven. For market cattle, impediments to expansion include: lack of inexpensive land to support additional cattle; recent adverse climatic conditions; perceived adverse impact of cattle on the environment and endangered species; feed availability and cost; water availability for grazing animals; competition from US producers importing finished product into the state; and export transportation issues including high cost and extended transit times. A statewide drought adversely impacted the Hawaii beef cattle industry over the last several years. For market hogs, nationwide oversupply resulting in depressed pork prices are a serious obstacle for industry expansion. An additional problem for the swine industry is adoption of stringent animal Federal EPA waste disposal requirements that have the potential for putting some producers out of business.

The most critical task for the division is to establish and maintain disease-free statuses for current and emerging diseases of economic and public health importance. In order to successfully establish export markets, a country or region must demonstrate, in a scientific manner, that diseases specified by the importing country are absent in animals to be shipped. Rigorous disease surveillance for cattle and swine brucellosis, bovine tuberculosis and swine pseudorabies are essential ongoing State-Federal cooperative programs. However, depending on the importing country, surveillance information for other designated

infectious diseases is required. Canada, a significant Hawaii export destination, requires that export cattle be free of bluetongue virus and anaplasmosis while Japan, a potential new export market, requires cattle be free of bluetongue virus, anaplasmosis, *Leptospirosis pomona* and Johne's disease. Extensive testing requirements to move feeder cattle into foreign markets can make any such venture economically impractical.

The division, along with the US Department of Agriculture, is able to assist the producer by maintaining infectious disease surveillance data and utilizing such data to negotiate import requirements with foreign countries. Recently, negotiations with Canada resulted in relaxing of import requirements for Hawaii cattle. The division also supports industry initiatives involving transportation options such as the movement of livestock on foreign carriers. In this regard, an agreement with Mexico and the US Department of Agriculture to move Hawaii cattle into the US through Mexico was completed during 2000 and will improve cattle handling during transit and reduce ocean transit times.

The veterinary laboratory maintains and/or institutes required testing procedures to insure the health of Hawaii livestock and poultry and facilitate animal exports. Laboratory competence is overseen by the National Veterinary Service Laboratories, USDA. Currently, the division's laboratory is certified to perform diagnostic tests for diseases such as porcine reproductive and respiratory syndrome virus, bovine paratuberculosis (Johne's disease), equine infectious anemia virus, bluetongue virus, bovine and porcine brucellosis, and porcine pseudorabies. Diagnostic testing procedures available through the veterinary laboratory provide timely and inexpensive export testing for industry and increase the feasibility of entering new export markets. In addition, disease surveillance allows for rapid identification of animal diseases that may affect people.

The introduction of new test methods are based on industry needs, agro-bioterrorism considerations, herd and flock health, and human health. Ongoing tasks include: examining the feasibility of incorporating a wide range of diagnostic procedures based on state of the art biotechnological or molecular biological procedures, such as immuno-histochemistry, DNA-probes and polymerase chain reaction (PCR) techniques; gaining additional laboratory certification for export testing procedures (anaplasmosis); initiating surveillance techniques for re-emerging or newly emerging diseases of human and livestock with public health and/or economic importance, such as West Nile virus, bovine spongiform encephalopathy (Mad Cow Disease), chronic wasting disease, and bovine paratuberculosis.

Introduction of some modern biotechnological testing procedures, such as real-time PCR testing and diagnostic methods related to bioterrorism agents are dependent on upgrading veterinary laboratory facilities to achieve a minimum Biosafety Level 2 (BSL-2) certification.

The performance measures used to assess the progress toward the Goal are the farm values for market cattle, market hogs and eggs. Expected yearly farm value data is compared to the 2001 values of: (1) $18,007,000 for market cattle; (2) $4,546,000 for market hogs; and (3) $9,640,000 for eggs. Total value for all three commodities for 2000 was $34,265,000. The

expected value for 2001 was $35,110,000 while the actual reported value was $32,190,000 (-8.3%). The expected total farm value for 2002 is $32,725,000.

Financial and production data is from the Hawaii Agricultural Statistics Service.

Timetable to Complete Project

Identify Target/Task	**FY 03**	**FY 04**	**FY 05**	**FY 06**	**FY 07**
1. Market cattle value (millions)	18.4	18.8	19.1	19.5	19.9
2. Market hog value (millions)	4.59	4.63	4.68	4.73	4.78
3. Egg farm value (millions)	9.77	9.87	9.97	10.1	10.16
4. Canadian risk assessment for bovine brucellosis and tuberculosis	X				
5. Ship cattle to Canada	X	X	X	X	X
6. West Nile virus assessment	X				
7. Conduct surveillance for Johne's disease	X	X	X	X	X
8. Conduct surveillance for scrapie		X			
9. Conduct surveillance for wildlife tuberculosis	X	X	X	X	X
10. Continue Federal cooperative programs for brucellosis, pseudorabies and tuberculosis	X	X	X	X	X
11. Conduct surveillance for anaplasmosis and bluetongue	X	X	X	X	X
12. CIP request for laboratory upgrade to BSL-2	X				
13. Initiate new laboratory test procedure(s)	X		X	X	X
14. National Farm/Animal Id system in place in Hawaii Department of Agriculture				X	
15. Chapter 19, HAR, amended	X				

X - Projected Year for Completion

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division: Agricultural Resource Management

Program Objective: To assist in developing and managing the State's agricultural resources by ensuring adequate and reliable supplies of irrigation water, farmland, infrastructure, and produce-processing, livestock slaughter and agricultural research and processing facilities.

PRIORITY GOALS AND OBJECTIVES

Departmental Objective being Pursued: To help increase the availability of resources required for agriculture.
Goal 1: To obtain full utilization and occupancy of all agricultural parks.

Existing agricultural parks are situated on lands marginal for agriculture use. This limits farming activities and opportunities to operate profitable enterprises. Applicants who are awarded these lots are the target group.

There are ten agricultural parks totaling 241 lots on 4,914 acres. Presently, approximately 10% of the lots are not utilized and approximately 5% of the lots are not occupied. In addition, approximately 20% to 25of the leased lots are not in compliance with all lease terms and conditions. Those lots which are non-utilized will be allowed a limited time for compliance before the leases are cancelled and re-awarded.

The plan of action will inventory the existing status of all agricultural park lots, identify the under-utilized lots, prepare a comparison table of lease terms and condition requirements to be complied with, cite lessees in non-compliance, conduct appraisals, issue public drawing notices for drawing unoccupied lots, conduct field inspections, counsel lessees, enforce lease terms and conditions, and research and prepare statutory amendments to Chapter 166, HRS, and to lease terms and conditions which will provide greater flexibility, broader authority, and reduction of cumbersome documentation.

Progress in meeting this goal will be tracked on a computer generated spreadsheet which will be developed to show what lots are leased and utilized, and when each separate lease term and condition is either met or in compliance.

Timetable to Complete Project

Identify Target/Task	FY 03	FY 04	FY 05	FY 06	FY 07
16. All agricultural parks are utilized.	X				
17. More field surveying of lessees' activities for compliance.	X				
18. Propose amendments to Chapter 166, activities for compliance.		X			
19. There is significant lot development by lessees.			X		
20. All lessees are in full compliance with the terms of their leases.			X		
21. Continue to monitor all lessees for full utilization and conformance with lease.				X	X

Goal 2: To ensure adequate and reliable water resources for agricultural irrigation.

Evaluate existing state operated irrigation systems to explore the development of new or additional water sources for activation during emergencies or drought. Potential water resources which may need to be evaluated are brackish water wells, abandoned or unused surface diversions, exchange of storage facilities for well field development, etc.

Develop drought mitigating measures for the Hawaii Drought Plan by including alternative water resources. Irrigation water supplies are severely impacted because most of the sources for irrigation systems, if not all, depend on surface streams which are reduced without sustained rainfall. Drought measures that need to be considered are wells, more diversion points, storage reservoirs, reused/recycled effluent, and other means.

Inventory and assess existing former plantation irrigation systems as potential alternate sources to support diversified agriculture replacing sugar. Much of these existing systems are badly deteriorated and need rehabilitation. An agricultural water use and development plan must be prepared to provide direction, funding, and utilization requirements.

Explore the possibility of federal assistance, both technical and financial, from existing federal programs or agencies. Existing federal authorities involving grants, loans, or other relief

assistance are available and should be incorporated, as applicable, toward water resources studies or assessments.

The department will need to involve many other stakeholders as it lacks statutory authority to implement projects or assistance programs. Agencies that will need to be involved include, but are not limited to, the USDA, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, Commission on Water Resource Management, and county water supply agencies; and also private agencies such as the Hawaii Farm Bureau Federation, Soil and Water Conservation Districts, and Hawaii Cattlemen's Council.

Timetable to Complete Project

Identify Target/Task	**FY 03**	**FY 04**	**FY 05**	**FY 06**	**FY 07**
1. Identify irrigation needs	X*	X	X	X	X
2. Inventory existing systems a. State operated systems b. Former plantations systems	X*	X	X	X	X
3. Prepare drought plan a. State operated systems b. Former plantations systems	X*	X	X	X	X
4. Begin rehabilitation of systems (include funding estimates) a. State operated systems b. Former plantations systems		X	X	X	X
5. Organize Ag Task Force		X			
6. Draft Ag Water Use & Development (AWU&D) Plan			X		
7. Establish project priorities				X	
8. Request legislative appropriation	X*	X	X	X	X
9. Federal assistance	X*	X	X	X	X
10. Begin implementation of projects	X*	X	X	X	X
11. Revise drought & AWU&D plans					X
12. Re-evaluate water demand					X
13. Consider reuse/recycle uses		X*	X	X	X

* ongoing

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division, Branch: Quality Assurance Division, Commodities Branch

Program Objective: To assist in the development of agricultural industries through quality assurance of agricultural commodities, and producer price and quota control to maintain stability within the dairy industry.

PRIORITY GOALS & OBJECTIVES

Departmental Objective Being Pursued:

To facilitate the growth of existing and new agricultural products and by-products for local and export sales.

Goal 1: Certify the grade and origin of all Hawaii-grown green coffee shipped from the place of origin, in a timely manner, to create and maintain the buyer's confidence in

Following the 1996 Kona coffee fraud scandal, buyers became skeptical of buying Kona and other Hawaii-grown green coffee. In order to renew trust in the product, certification of green coffee was mandated by law in 1997. Certification Marks of Origin for coffees from six different geographical regions of Hawaii were registered with the U.S. Trademark Office and final approval for all six marks was received by August 2000. Currently, a Certification of Origin Mark for Ka'u coffee is sought, and completion is scheduled in FY04.

In FY 02 about 95 percent of the total state production of green coffee was certified for grade and origin and 5 percent was certified for origin only. This percentage should be maintained in the next two years.

In FY 02, for Kona-grown green coffee, the turn-around time from sampling until the certificate of grade and origin was completed averaged less than 2 business days after the date of sampling. The average certification turn-around time for coffee from areas other than Kona was much higher, which increased the statewide average to 2.6 days. The reasons for this include the need to mail samples to Kona (or Kauai) for grading, and the resignation of the full time Kauai coffee grader, who was still grading coffee but on an emergency hire, time-available basis only. The applicants desire a maximum 48 hour turn-around time but staff feels that an average of 2 days, with no longer than 5 business days (plus shipping or mailing samples transit time), can be achieved for the 56 applicants that request certification throughout the State.

Achieving this goal will take a few more years than originally proposed, as millers have not requested the self-certification program, and training the new Kauai Agricultural Commodities Marketing Specialist (hired in April, 2002) to independently grade coffee will take one to two years.

The performance measures that will be used to assess the progress toward achieving this goal are as follows:

1. Percent of green coffee volume that is certified for both grade and origin.

2. Average turn-around time (number of working days from sampling to issuing certificate).

TIMETABLE TO ACCOMPLISH GOAL 1

Identify Target/Task	FY 03	FY 04	FY05	FY06	FY07
1. Amend coffee grade standards (completed FY02)					
2. Certification Mark of Origin for Ka'u approved		X			
3. Green coffee certified for grade (%)	95	95	100	100	100
4. Average turn-around time (work days)	95	2.2	2.0	2.0	2.0

Goal 2: Increase the market share of locally produced milk to 75% of the total milk utilized or distributed by local milk processors.

The production of local milk has been decreasing for several years, with statewide sales dropping from 114.4 million pounds in 1994 to 104.0 million pounds in 2001; a 9.1% reduction. During this period, about half of the dairies closed and now, only eight dairies remain on Oahu and the Big Island. In order to keep the market supplied with milk, the local processors as well as some large supermarkets have brought in milk from the mainland.

The laws and rules that regulate the milk industry in Hawaii are structured around the milk industry as it existed thirty-five years ago. In 1967 all of the fresh milk consumed was locally produced and consumed on the island of production; there was no import of fresh milk from the mainland; and there was no movement of locally produced milk between the various islands. In the last decade, the number of regulated dairies has dropped from 16 to 8; and the number of processors has dropped from 6 to 2.

The current law and rules make it difficult for a new dairy to enter the market, difficult for the movement of quota from one dairy to another, and nearly impossible for a dairy in one milkshed to receive quota from another milkshed. There is also no unified promotion of Island

fresh milk and no assured source of research funds to improve production practices and milk quality. All of these factors restrict the ability of the industry to improve and grow.

Cost of production and cost of import studies have not been conducted in recent years. These studies are necessary to evaluate the health of the industry, determine the competitive price of imported milk, and establish or update price determination methods for the milk sheds.

Achieving this goal will require amendments to the milk law and rules, initiation of annual cost of production and cost of import studies, establishment of a fee on milk produced to fund milk research and promotion activities, and the development of research and promotion programs for milk.

The performance measures that will be used to assess the progress toward achieving the goal are as follows:

1. Percent of market utilization produced (share of market).

2. Number of cost studies conducted.

Number of promotion/research projects approved.

TIMETABLE TO ACCOMPLISH GOAL 2

Identify Target/Task	FY 03	FY 04	FY05	FY06	FY07
Amend Milk Control Law		X			
Amend Milk Control Rules		X			
Establish fee to fund research and promotion activities		X			
Share of market (%)	62	65	70	75	75
Cost of production and cost of import studies conducted	0	3	3	3	3
Promotion/research projects approved	0	1	2	3	3

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division, Branch: Aquaculture Development Program

Program Objective: To develop a sustainable and profitable commercial aquaculture industry by encouraging a diversity of products, improving management practices and technologies, and providing direct assistance with regulations, disease, marketing and new business development.

PRIORITY GOALS AND OBJECTIVES

Department Objective: To facilitate the growth of existing and new agricultural products and by-products for local and export sales.

Goal 1. Facilitate the development of commercial open ocean aquaculture to a $5M industry by 2005.

The 1999 State Legislature amended Chapter 190D, HRS, the Ocean and Submerged Lands Leasing law to clarify and streamline the process for commercial leasing for aquaculture. The amendments to the law will remain in effect for five years and then the Legislature will review the situation. The 2002 Legislature removed the 5-year provision to eliminate the legal uncertainty and encourage development.

The Department of Land and Natural Resources (DLNR) issues and administers leases, while DOA, through its Aquaculture Development Program (ADP), is the liaison with potential leasees and provide technical support. Two private companies came forward to be the "test cases" to work out the initial permitting and leasing process, one to grow pearl oysters and the other fish. Both companies have gotten authorization for leases, with one lease (cage culture of fish) finalized and the second awaiting a boating rule change before the lease can be written. Currently four more companies are in the process of requesting ocean leases.

First sales of fish began in late 2001. Revenues will depend on stocking rates. Sales have reached 7,000 pounds a week in 2002, with approximately one third exported. With the success of the two cages, the project is expected to expand to four cages by 2004. A study is being made of potential sites for additional ocean leases for cage culture and other aquaculture technologies. Upon the availability of these results in 2003, the potential sites could be designated for aquaculture use and promoted to potential farmers. Additional projects are expected to start-up as a result of this preliminary assessment of suitable sites and the initial farm successes. The first harvest of black pearls from a farm begun in 2001 can be expected in 2008 (pearls have a much longer product cycle).

Opportunities also exist to bring into Hawaii substantial research dollars for open ocean aquaculture from the federal and international sources. The Department will facilitate these activities by various means including provision of permit assistance, technical information and matching funds. In addition, planning and coordination of the overall, long-term research and development for open ocean aquaculture will continue to be addressed by the Department, in cooperation with DLNR.

Progress in meeting development targets will be measured by the number of successfully permitted projects in the start-up phase and the successful sale of product and subsequent sustainable operation of established farms.

Timetable to Accomplish Goal

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
1. Permit/lease 2 Test Case sites	X				
2. Harvest and sales first test cage	Accomplished				
3. Continue Federal/State Research on Species/Systems (Ongoing)	X	X	X	X	X
4. Statewide assessment of sites	X	X			
5. Permit/lease 2 cages	X	X			
6. Designate sites for open ocean aquaculture		X	X	X	x
7. Promote investment, e.g., web site, conferences, trade magazines	X	X	X	X	X
8. Permit/lease 8 cages at one or more locations		X	X	X	X
9. Harvest and sale, first black pearls from test case site					X

Goal 2: Facilitate the further development of the freshwater and marine aquarium products segment of Hawaii aquaculture to a $15M industry ($5M freshwater species and $10M saltwater species) by 2007.

Since the early 1990's efforts to expand the aquarium products industry for Hawaii have been gaining momentum. A comprehensive description of the opportunity was contained in a report to the 1996 State legislature. Since then, modest Federal and State research dollars have addressed species and system development. A directory of the industry prepared in 1997, and now in its second edition, identified over 75 breeders and producers. Despite these efforts the aquarium industry remains fragmented and lacks cooperation among the

members and a cohesive direction for expansion of both the freshwater and saltwater components.

Department focus on expansion of the aquarium industry will initially address consensus building and developing an industry action agenda. To facilitate this process the industry directory will be periodically updated and an ad hoc advisory committee was formed to advise on development issues. Recent changes to streamline the species importation process will be fully implemented to benefit producers and breeders and additional changes will be suggested.

ADP will also work with the industry to help develop a research and development agenda to coordinate and guide solicitation and expenditure of public funds. Marketing plans for both freshwater and saltwater species will also be a focus. Moreover, critical technical extension and disease management services for this sector will be targeted for additional funding and constant improvement to keep up with the new species and technologies and number of farms.

A potentially multi-year federally funded program began in 2000. The goal of the Pacific Tropical Ornamental Fish Program is sustainable economic development, which will provide entrepreneurial and long-term employment opportunities for Hawaii through expansion of cultured sources of aquarium products. Funding is through the U.S. Department of Commerce.

Finally as the industry becomes more successful and cohesive, ADP will focus on park and cooperative development. Funds for a study to determine the feasibility and possible locations for aquaculture parks for aquarium species will be requested, perhaps from the legislature, and if feasible one or more parks will be constructed, if possible, in partnership with private landholders. Also, as is common in agriculture, ADP will assist the industry in exploring the formation of cooperatives for purchasing and marketing to reduce the costs of equipment, supplies, and air transportation.

Progress towards the goal will be evaluated through production of required development agenda or studies, expansion of funding levels and expansion of the number of farms and production value for the industry.

Timetable to Accomplish Goal

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
1. Form and staff an Ad hoc Advisory Committee	X	X	X	X	X
2. Update Aquarium Industry Directory	X		X		X
3. Develop consensus/action agenda for FW and SW species and periodically re-evaluate	X		X		X

4. Facilitate species importation permits and suggest additional permit streamlining	X	X	X	X	X
5. Improve disease management services with targeted fees, grants and use of a special fund	X	X	X	X	X
6. Develop research agenda and funding for the aquarium sector and periodically review	X		X		X
7. Assist in developing and implementing industry-wide marketing plans for FW and SW aquarium species	X	X	X	X	X
8. Improve production extension services by co-funding, grants and networking	X	X	X	X	X
9. Conduct aquaculture park feasibility/site determination study		X			
10. Develop 2 aquaculture parks for aquarium species			X	X	
11. Assist industry with cooperative formation for purchasing and marketing					X

Act 100, SLH 1999
Action Plan
2002 Update

Division/Branch: Agribusiness Development Corporation (ADC)

Program Objective: To facilitate and coordinate the development and expansion of Hawaii's agriculture industry by directly participating in the shift from a dual crop (sugar and pineapple) to a diversified agriculture industry; and by evaluating and funding research and agribusiness development projects.

Goal 1:

To ensure the continued operation and maintenance (O&M) of irrigation systems vital to the development of diversified agriculture throughout the State.

Discussion:

As part of the investigation to find the deficiencies contributing to system loss, one of the solutions was to replace the 3 wooden siphons. The project to replace the 3 wooden siphons on the Leeward side was completed in November 2001. Early water transmission figures indicate that replacing the 3 siphons has reduced the average system loss by approximately 3 mgd.

Another solution that was looked at to reduce system loss was the creation of a reservoir to capture overflow water located at different parts on the water system. ADC will continue to study and identify ways to improve efficiencies of the operation. ADC has worked with the water users and encouraged them to build their own storage reservoirs, so that their draw will not be limited to the water level of ditch flow at any given time. Storage reservoirs can also help even out extreme water flow fluctuations of the system. Del Monte has finished building their 1.5 million-gallon storage reservoir and Larry Jefts Farms is in the process of building an 8 – 10 million gallon reservoir.

Senate Concurrent Resolution 43 of the 21st Legislature of the State of Hawaii directed ADC to conduct an assessment of the Molokai Irrigation System and to recommend long-term to chronic water shortages. The Hawaii Agriculture Research Center was contracted to conduct the study and their report was submitted to the legislature in December 2001.

In October 2001, ADC was given a right-of-entry to 1400 acres of the Kekaha agricultural lands from the Department of Land and Natural Resources (DLNR), which was intended to give ADC management capabilities of all elements as they affect the Kekaha agricultural lands. While ADC continues to hold the right-of-entry, lease negotiations between DLNR and

ADC continues. Two drafts of the lease have been reviewed and revised. The lease could be issued pending ADC Board approval of the latest draft. Also, efforts continue to negotiate terms and tenant lease rents with the Kekaha Coalition members.

ADC continues its role of interim operator of the electrical, irrigation, and drainage system of the area and continues to be the holder of the National Pollutant Discharge Elimination System (NPDES) permit. With help from Senator Daniel Inouye, the ADC received a $2.16 million grant for Phase II work at the Pacific Missile Range Facility (PMRF) Kekaha, Kauai for safety and electrical repairs to the Nohili & Kawaiele drainage pump stations for use in FY 2002 through FY2003. Also, ADC has received a $2.3 million grant for Phase III work for additional repair and maintenance work at the PMRF. Phase III funds will be utilized beginning FY2003 through FY2004.

Per the December 28, 2001, Legal Framework, Findings of Fact, and Decision and Order, Waiahole Ditch Combined Contested Case Hearing (CCH-OA95-1), the Commission on Water Resource Management (CWRM) required the ADC to submit an assessment plan and create an outlet from the WWS to divert tunnel water into the Waikane Stream. ADC was to present the assessment plan to CWRM within ninety (90) days of the December 2001 Decision and Order, or by March 28, 2002; and complete the diversion into Waikane Stream within 180 days after submitting the assessment plan to CWRM, or by September 21, 2002.

Timetable to Accomplish Goal:

Target/Task	FY 03	FY 04	FY 05	FY 06	FY 07
Investigate WWS system deficiencies contributing to system loss and come up with corrective action plans.	X				
Increase water storage capacity to WWS	X				
Waikane Stream diversion at Waiahole Ditch	X				
Manage the Kekaha electrical, drainage, and irrigation systems.	X	X	X	X	X
Manage infrastructure improvement projects at Kekaha	X	X	X		

Comments:

Due to unforeseen right-of-entry delays, ADC requested a time extension from the CWRM. CWRM granted the time extension to ADC and the Waikane Stream diversion was completed in November 2002 and meeting the revised deadline.

Goal 2:

To initiate and support cost-effective public-private partnerships that can provide farmers with affordable leased land.

Discussion:

Agricultural subdivisions developed in accordance with county ordinances such as those of Hawaii County may prove to be an expeditious alternative to the development of state agricultural parks pursuant to Chapter 166, Hawaii Revised Statutes.

The ADC has undertaken a pilot project to support the development of an agricultural subdivision in the Hamakua District, Hawaii County. Exemption from Chapter 171, HRS will be sought to help expedite the process. This will serve as a pilot project for the ADC and attempt to stimulate the economy with fruit and vegetable production. A nearby community kitchen could facilitate the development of value-added products. Initial investigation revealed a few farmers expressing interest in land parcels between 10 and 80 acres. It appears that the ADC Board favors using a contracted management agent to manage the property. Tenants will be selected on the basis of experience, credit risk, and business plans.

Timetable to Accomplish Goal:

Target/Task	FY 03	FY 04	FY 05	FY 06	FY 07
Acquire lease from Kamehameha Schools for a proposed Hamakua Agricultural Subdivision (HAS)	X				
Complete soil conservation plans for HAS and obtain necessary permits	X				
Complete infrastructure upgrades for HAS		X			
Manage and operate HAS		X	X	X	
Obtain a master lease for the Kekaha Agricultural lands and manage the land and infrastructure	X	X	X	X	X

Comments:

The original schedule for creating the HAS was overly ambitious and ignored many details of the requirements to create such a unique subdivision. The project location has changed from State land to Kamehameha Schools land. The ADC is currently negotiating lease terms with

Kamehameha Schools. There are greater details evident in the above action plan, which is a more realistic schedule than previously provided.

Goal 3:

To provide statewide coordination in areas important to agricultural development.

Discussion:

There are areas in agricultural development that without an outside entity to provide coordination there will be a failure to address challenges and opportunities.

ADC conducted a survey to assess the training needs of agriculture workers as well as farm owners/operators in January of 2001. As a result of the survey, the ADC has partnered with the Hawaii Agricultural Resource Center and Crop Care Hawaii to obtain grants from the City & County of Honolulu (C&C) and the Environmental Protection Agency (EPA) for the implementation of two training program geared toward immigrant farmers and the use of pesticides and pesticide management.

At this time, the Target/Task for the facilitation of the sale of local produce and processed foods to the military has been taken off the Target/Task chart because it is not on the ADC Board's top priority list. This task may be revisited should the ADC Board decide to pursue it. The facilitation of the construction of a certified production/distribution center remains on the Target/Task chart, but is not considered one of the ADC Board's top priorities.

The Hawaii State Legislature passed an act relating to agricultural marketing. Act 194, SLH 2002, requiring the ADC to provide knowledge and resources, as well as solicit assistance from successful local agricultural entrepreneurs and other sources to develop a marketing plan and strategy that represents the diversified agricultural sector in Maui.

Timetable to Accomplish Goal:

Target/Task	FY 03	FY 04	FY 05	FY 06	FY 07
Coordinate the start of an training program directed toward immigrant farmers	X				
Facilitate the construction of a certified production/distribution center	X				
Provide knowledge and resources and develop a marketing plan for Maui (Act 194, SLH 2002)	X	X	X		

Comments:

ADC has received verbal confirmation to proceed with implementing the training program, has submitted the necessary paperwork to the C&C and EPA, and are awaiting their response and subsequent funding.

ADC has met with leaders of the two agricultural cooperatives on Maui to discuss various agricultural issues and how to increase exposure and how to better the diversified agricultural sector on Maui. A product of meetings with the Maui agricultural cooperatives, ADC representative have in mind a potential state-wide marketing plan that will benefit the Hawaii's agricultural industry and the State in general.

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division/Branch: Agricultural Development

Program Objective:

To assist in the market research, planning, development and expansion of agricultural industries through the collection and dissemination of agricultural and marketing information; and market development and promotion of agricultural products.

PRIORITY GOALS & OBJECTIVES

Departmental Objective Being Pursued:

To facilitate the growth of existing & new agricultural products & by-products for local & export sales.

Program Goal: To contribute to the Department's annual growth rate goal of 2% in farm gate value of diversified agriculture.

In 2001 diversified agriculture is estimated to contribute approximately $356.9 million to Hawaii's economy at farm gate. The targeted goal for 2006 is $394 million, an increase of $37.1 million for the five years or 10.4% (compounded). That figure does not include value added components such as, canning, puree, fresh packing, custom mixes, neutraceuticals, processed foods, etc.

To compete, grow and prosper in today's global economy, producers must promote local consumption as well as find out of state markets for their products. They must have price and supply information to help make sound business decisions. Market research information on tariffs, import restrictions, labeling requirements, shipping, distribution and consumer trends is essential to determine markets and products offering greatest potential success and aids the producer in preparing their products for export. It is also desirable to participate in appropriate promotional activities to gain market exposure for their products.

Many of Hawaii's producers lack the resources or expertise to accomplish important marketing tasks without assistance and leadership.

The Agricultural Development Division can play an important role in providing the needed assistance by:

MARKET DEVELOPMENT

- Promoting increased usage and viability of the “Hawaii Agricultural Products” database on the Internet to increase exposure of Hawaii producers and their products to worldwide markets and buyers.
- Partner with other agencies such as the DOH, DBEDT, HTA, DOE and UH in agricultural development and promotion projects.
- Enhance the presence and quality of the Market Development program on the hawaiiag.org website.
- Assisting companies in obtaining access to other funding sources through FAS Market Access Programs and provide counseling and training to improve export readiness.
- Assisting agricultural industries with “matching funds” promotional contracts that are critically reviewed and monitored for results oriented action plans that address the specific industry’s number one obstacle to profitable sales growth.
- Providing promotional opportunities through DOA lead activities such as trade missions, suitcase shows, research projects and WUSATA generic market access programs.

TIMETABLE TO ACCOMPLISH GOAL

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY 07**
1. Increase number of producers listed in internet database to 960	890	920	940	960	100
2. Increase links from other agricultural and search engine sites to 45	30	35	40	45	50
3. Apply for Federal grants for agricultural market development projects	2	2	2	2	2
4. Provide systematic procedure to regularly update and maintain database accuracy	X	X	X	X	X
5. Partner with other agencies such as the DOH, DBEDT, HTA, DOE and UH in Agricultural development and promotion Projects.	2	2	2	2	2
6. Enhance the presence and quality of the Market Development program on the Hawaiiag.org website.	X	X	X	X	X
7. Maintain number of participating companies in WUSATA Branded Program at 6	6	6	6	6	6
8. Conduct local generic Export Ready	X	X	X	X	X

Program					
9. Develop additional, industry specific Export Ready elements and information	X	X	X	X	X
10. Evaluate and approve industry "matching funds" contracts based upon measurable action plans most critical problem targeted at the industry's	X	X	X	X	X
11. Sponsor and lead promotional activities such as, trade missions, suitcase shows, research projects and WUSATA generic projects	X	X	X	X	X

MARKET ANALYSIS and NEWS

- Develop an "Agricultural Information System" that can be used as a comprehensive source of information for market planning, market research, and economic and policy analysis. For example, one newly planned activity is:
    - A regularly published "Outlook Report", targeted at local producers, summarizing and analyzing pertinent worldwide information on trade, price, supply and demand trends that could influence the growing, production and marketing decisions of Hawaiian companies.
- In a globally competitive, information-driven economy, timely and relevant information is important in achieving business success. The Market Analysis and News Branch is aiming at pro-actively providing this information for business decision making and as basis for program development and policymaking. Our target groups are farmers, food processors, trade representatives, other HDOA and government units, and policy makers. The tasks below are targeted to help achieve this objective.

TIMETABLE TO ACCOMPLISH GOAL

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
1. To compile, analyze and report on trade, prices, market supply and demand trends for agricultural and food products, (up to 4 per year).	X	X	X	X	X
2. To initiate "Market Outlook Reports" by FY-02 (up to 2 per year).	X	X	X	X	X
3. To evaluate market development programs upon request to determine their economic effectiveness and efficiency (up to two per year).	X	X	X	X	X
4. To assist in resolving at least one major transportation-related issues	X	X	X	X	X

affecting Hawaii's agricultural entrepreneurs.					
5. To conduct "Needs assessment" to identify important areas of need for market and economic information and prioritize reporting activities	X	X	X	X	X
6. To restructure data collection and reporting activities based on (1) above.	X	X	X	X	X
7. To increase the number of fax and 2% per year subscribers to market reports by internet	X	X	X	X	X
8. Initiate downloadable data access for further analyses by subscribers	X	X	X	X	X
9. To include annual price and supply reports in the Branch homepage (1 per year).	X	X	X	X	X
10. To provide links to relevant market and economic research sites in the Branch homepage.	X	X	X	X	X

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division/Branch: Administrative Services Office/Computer Services Section

Program Objective: To enhance the effectiveness and efficiency of the overall program by providing program leadership, staff support services, and other administrative services; and to conserve and protect important agricultural lands in agricultural use, and expand the contribution of diversified agriculture to the State's economy.

Priority Goals & Objectives: To enhance the effectiveness and efficiency of the overall program by providing program leadership, staff-support services, and other administrative services; and to conserve and protect important agricultural lands in agricultural use, and expand the contribution of diversified agriculture to the State's economy.

Departmental Objectives Being Pursued: To provide the Department with computer technology guidance and support.

GOALS:

A. To implement, utilize and maintain technology to enhance communications and improve efficiency, effectiveness and accuracy in the workplace. The current network infrastructure and client hardware and software needs to be updated to facilitate the sharing of information and resources. The network would enable access to information residing on the minicomputers and LANS servers as well as facilitate the sharing of peripherals.

B. To install electronic mail and Internet access department-wide. The need to access and disseminate information utilizing the Internet is critical in today's business environment. Users found the Internet to have a wealth of information necessary for research or just keeping up with industry news. Electronic mail allows users to speak to counterparts throughout the world. In addition, the Internet has enabled the Department to disseminate information worldwide. "Hawaii's Agricultural Gateway" provides information about each program as well as answers to frequently requested information.

C. To migrate applications off the Wang. Most of our major applications currently reside on one of two Wang VS minicomputers. Although both are year 2000 compliant, long-range plans are to migrate the applications to a LAN or server-based system due to phase-out of hardware support. Several alternatives are being reviewed for the migration.

1. The current software, SPEED II, has a LAN-based version, APPX where current applications can be converted to a UNIX or NT-based server without any loss of coding or data.
2. Where the current application does not meet user needs and major enhancements are required, the system need not be converted using APPX.
3. Implementation of a pre-developed application that is available on the market that would meet the users needs.

D. To maintain and upgrade hardware and software as necessary. Technology is rapidly changing. Careful evaluation of existing and new technologies is required to determine if and when upgrades and new technologies are necessary toward meeting our department's objective and statewide standards.

TIMETABLE TO ACCOMPLISH GOAL

ITEM	IDENTIFY TARGET/TASK	FY03	FY04	FY05	FY06	FY07
A	**Implement network infrastructure to enhance communications and allow for sharing of information resources.**					
3	Network Halawa Offices	X				
4	Interface Servers	X				
	Implement SANS at Kapalama	X				
5	Network ADC	X				
6	Assist in Pesticides move	X				
10	Network Aupuni Office	X				
11	Network Maui and Maui Airport Offices	X				
12	Network Honolulu PQ/AI Airport Offices		X			
13	Network Kona and Kona Airport Offices		X			
14	Determine feasibility of Molokai Office	X				
15	Determine feasibility of Waimea Office	X				
16	Maintain and enhance network	X	X	X	X	X
B	**Install electronic mail and internet access.**					
1	Install and deploy Lotus Notes departmentwide.	X				
2	Maintain and upgrade access as necessary.	X	X	X	X	X
C	**Migrate applications off the Wang VS minicomputer.**					
1	Migrate Requisition/PO System	X				

2	Migrate Measurement Standards System	X				
3	Migrate Plant Quarantine System	X	X			
6	Migrate Agricultural Resource Management System	X				
7	Migrate Administrative Services System	X				
8	Purchase applications server for Halawa		X			
9	Purchase APPX license for Halawa		X			
10	Migrate Animal Quarantine System		X			
11	Maintain and enhance current applications, develop new applications as necessary.	X	X	X	X	X
D	**Maintain and upgrade hardware and software as necessary.**	X	X	X	X	X

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division, Branch: Quality Assurance Division, Measurement Standards Branch

Program Objective: To minimize losses and inaccuracies to client groups due to incorrect or fraudulent measuring equipment or processes or due to substandard products.

PRIORITY GOALS & OBJECTIVES

Departmental Objective Being Pursued:

To improve compliance with laws and rules and provision of certification services.

Goal 1: Increase the pricing accuracy compliance rate for price scanners to 95 percent.

National media coverage on the issue of the accuracy of price scanners showed several large national retail chain stores having poor performance rates. The Department participated in the 1998 Price Check II survey to examine the pricing accuracy of stores with electronic checkout scanners. The survey covered the whole nation with participation from 36 states and the Virgin Islands. The results of the survey, released by the Federal Trade Commission, ranked Hawaii in tenth place with 82.93% of the stores passing. Although Hawaii ranked well nationally, there is still a need for improvement.

Routine inspections by the program in FY 98 showed that the average annual compliance rate for pricing accuracy was 56% of the stores inspected meeting the 2% tolerance rate for pricing errors, which included both overcharges and undercharges. The 1998 Legislature amended the law to make only overcharges a violation. The average annual compliance rate for pricing accuracy improved to 77 % in FY 99, 84 % in FY 00, 87% in FY 01, and 93% in FY 02. The Department of Commerce and Consumer Affairs prevailed in civil action against one local store that had a history of poor compliance and unresponsiveness.

It is estimated that there are in excess of 350 large stores and 550 small stores with price scanners statewide. Increasing the pricing accuracy compliance rate of these scanners will require evaluating program priorities. Tasks identified are: to shift resources in order to increase surveillance frequency on stores with poor performance; work with stores to seek voluntary compliance; issue non-compliance notices; conduct administrative proceedings to administer penalties; and work with the Department of Commerce and Consumer Affairs to handle unresponsive stores. Inspecting the greater than expected number of newly identified stores with price scanners is expected to reduce the overall compliance rate from FY 02, and cause at least a one year setback in meeting the original goal established.

The performance measure that will be used to assess the progress toward achieving the goal is as follows:

1. Percent of stores meeting 2% tolerance for pricing accuracy.

TIMETABLE TO ACCOMPLISH GOAL 1

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
Evaluate & prioritize activities	X	X	X	X	X
Conduct more surveillance on poor performance stores	X	X	X	X	X
Work with stores to get voluntary compliance	X	X	X	X	X
Issue non-compliance notices	X	X	X	X	X
Conduct administrative proceedings to administer penalties	X	X	X	X	X
Work with Dept. of Commerce & Consumer Affairs to handle unresponsive stores	X	X	X	X	X
Percent of stores inspected meeting 2% tolerance	85	90	95	95	95

Goal 2: Increase the percent of registered measuring devices inspected annually from 68 percent to 100 percent.

The program currently conducts routine inspections of weighing devices, taximeters and other linear devices, and fuel dispensers and other volumetric devices. There are 18,277 registered measuring devices statewide. There is an 87 percent average compliance rate for the different types of devices. The inspections, however, only cover a portion of the registered devices throughout the state. Due to vacancies in staff, inspections have not been done, for the past 6 years, on Kauai and, for the past two years, on the island of Hawaii. New truck mounted and cart mounted gasoline provers have been purchased to improve speed of testing gasoline pumps.

A law passed in FY 98 would allow the department to adopt rules for the registration of service agencies to assist in conducting routine inspections of measuring devices to assist the program. The department would still have to train and regulate the activities of the service agencies and take regulatory action on devices that were found in non-compliance.

By evaluating the program activities, the prioritized tasks are: to shift resources; update the list of registered measuring devices, to eliminate non-commercial registered devices; amend

the rules to allow service agencies to assist in routine inspection of measuring devices; develop a training program for service agencies; and train the service agencies.

The performance measure that will be used to assess the progress toward achieving the goal is as follows:

1. Percentage of registered devices inspected annually.

TIMETABLE TO ACCOMPLISH GOAL 2

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
Evaluate and prioritize activities	X	X	X	X	X
Purge measuring device registration list	X	X	X	X	X
Amend rules allowing service agency assistance in inspections	X				
Develop training program for service Agencies	X				
Percent of devices inspected annually	75	100	100	100	100

Act 100, SLH 1999
ACTION PLANS
2002 Update

Division, Branch: Plant Industry Division, Pesticides Branch.

Program Objective: To ensure the efficient, effective and safe use of pesticides to minimize adverse effects on the environment, and enable the agricultural industries to continue the use of pesticides.

PRIORITY GOALS AND OBJECTIVES:

Department Objective Being Pursued: To promote the beneficial effects of agriculture on the environment and prevent or minimize its adverse impacts.

GOAL 1. To reduce the number of highly toxic pesticide exposures by fifty (50) percent in five (5) years.

Pesticides illnesses are not easily recognized. Symptoms are similar to flu, colds, and other illnesses. The Hawaii Poison Control Center tracks pesticides exposures. It also assesses the severity of exposure, age of victims, route of exposure and action (storage or use) resulting in the exposure. In fiscal year 1999, the Poison Control Center recorded approximately one-thousand two hundred (1,200) exposures to household items, including bleach, insecticides, cleaners and disinfectants, herbicides, rodenticides, swimming pool products, toilet bowl and tile cleaners, and moth repellents. Over five hundred (500) of these exposures involved pesticides. Improving the quality of the pesticides exposure data and planning activities to reduce the number of exposures have been pursued.

In the Fiscal Year 2002 report, 1,351 exposures to household items, including pesticides, was reported. This increase was primarily due to the Hawaii Poison Control Center resuming operating hours to 7-days a week, 24-hours a day. This resumption of operating hours has resulted in a reevaluation of the measure of effectiveness. An increase in calls to the Poison Control Center on non-toxic or low to moderately toxic poisonings might result from more public knowledge about the Poison Control Center services.

The goal was amended this year from the number of pesticides exposures to the number of highly toxic pesticides exposures because it represents a better indicator of harm caused from pesticides. Many of the calls to the Poison Control Center are inquiry calls and do not represent an illness. The new measure will be for highly toxic exposures, which are considered life or health threatening. These victims are referred to the nearest emergency room or ambulance. The Poison Control Center calls the emergency room with vital

information and stands by to assist. The number of highly toxic exposures for FY 02 was forty-four (44.)

TIMETABLE TO ACCOMPLISH GOAL 1:

Identify Target/Task	FY 03	FY 04	FY05	FY06	FY07
Physicians: Seminar on the recognition and management of pesticide poisonings.			X		
Household pesticide users: Development or review of outreach materials.			X		
Household pesticide users: Implement education program for household pesticides users.	X	X	X	X	X
Agricultural employers: Conduct training and inspection activities to protect agricultural workers from illnesses related to pesticide exposure.	X	X	X	X	X
Commercial pesticides users: Conduct training for new employees about pesticides hazards.	X	X	X	X	X
Reduction in number of highly toxic pesticides exposures	4	4	4	5	5

GOAL 2. To demonstrate agricultural remediation of persistent organic pollutants and toxic metals. To facilitate commercial applications and regulatory agency acceptance of agricultural remediation technologies.

Persistent organic pollutants and toxic metals used from the mid-to-late 1900's create a toxic legacy. Toxic pollutants in Hawaii include chrome, arsenic and pentachlorophenol from treating wood; pentachlorophenol and other phenols from early herbicides used to growing sugarcane; dibromochloropropane and ethylene dibromide from pineapple nematode control; chlordane, heptachlor, aldrin and dieldrin from prophylatic treatments for termites; mercury from treating sugarcane seed pieces to prevent rot; trichloroethylene from solvent uses by the military and others; polychlorinated biphenyls from use in transformers, capacitors and other electrical equipment; and metals in incinerator ash.

Methods to reduce levels of chemicals of concern in the environment involving physical destruction of the chemical are expensive and the method may generate by-products that are also harmful. For example, incineration will generate carbon dioxide and sterilize soils so that nothing will grow. There are also no approved hazardous waste treatment facilities in Hawaii and any waste must be transported elsewhere for treatment and disposal.

Biological systems have demonstrated some promise in degrading toxic pollutants to less harmful substances. Beginning in 1998, Senator Inouye included funded funds in the budget for the U.S. Environmental Protection Agency to demonstrate phytoremediation technologies to regulators and potential commercial interests. The goal of this project is to facilitate the development of an industry that is mobile with the biological tools to mitigate a variety of chemicals and metals.

TIMETABLE TO ACCOMPLISH GOAL 2:

Identify Target/Task	**FY 03**	**FY 04**	**FY05**	**FY06**	**FY07**
Designate and equip laboratory for dioxin.		X			
Field demonstration of successful applications.	X				
Develop field manual for successful applications.		X			
Identify other toxic pollutants that have a high probability of success to be degraded by agricultural applications.		X			