

A Bill for an Act Relating to Research, Development and Expansion of Agricultural Commodities.

Be It Enacted by the Legislature of the State of Hawaii:

SECTION 1. The legislature finds that agriculture continues to be one of Hawaii's most important industries, contributing immeasurably to the stability and growth of the State. The maintenance and growth of agriculture depend to a large extent on a concerted effort flowing from a planning framework which optimally utilizes the resources of both the public and private sectors. In recent years, that segment of agriculture known as diversified agriculture has demonstrated vast potential in terms of developmental possibilities and three sub-industries within diversified agriculture, the papaya industry, the anthurium and other cut flowers industry, and the ornamental foliage industry, have shown exceptional and highly promising growth potential not only for the local market but more importantly, for export markets throughout the world.

Legislative findings relating to the papaya industry. The legislature finds that one of the various enterprises in diversified agriculture in Hawaii, the papaya industry promises the greatest immediate growth potential in utilizing land, creating jobs, and improving the state export-import balance. Acres harvested have more than doubled in the last decade, rising from 790 in 1965 to 1,840 in 1975. During the same period, the value of sales increased from \$1.1 million to \$5.7 million, a five-fold increase. Projection to 1980 indicates a harvested acreage of nearly 4,000 acres and sales of \$15.6 million.

The legislature further finds that papaya marketing is concentrated in three broad destination markets: U.S. mainland, State of Hawaii, and foreign. To support marketing efforts, aggressive public relations, merchandising, advertising, and promotional support are needed. In order to properly develop each of these markets, especially the U.S. mainland, market research is needed to determine the market potential for papayas as well as the effectiveness of various forms of advertising and promotion. In addition, current market destination information and accurate production forecasts are needed to insure timely and effective advertising and promotional programs.

The legislature further finds that transportation is a major problem of the papaya industry and that it is a set of several interrelated problems. Air transportation, currently the major mode of shipment, is expensive and may not be able to provide adequate lift or market destination coverage from the production areas. Surface transportation is less expensive but the length of time in transit under current technological practices will not allow adequate shelf life for effective marketing. Current methods of packaging and handling are not satisfactory for shipment under conditions differing from the current small-lot air shipments. Current fumigation and treatment methods may not be satisfactory under large-lot shipments, impending environmental and safety restrictions.

The legislature further finds that as total production grows the volume of

*Edited accordingly.

papayas available for processing also grows since some fruit are not marketable as fresh fruit for various reasons. The expanded supply of this fruit will require additional research and development on adequate ways of processing these fruits.

Legislative findings relating to the anthurium and other cut flowers industry. The legislature finds that the anthurium industry in Hawaii has shown a steady growth in the past and its future growth is even more optimistic. The number of flowers sold has increased from 796,000 dozens in 1970 to 1,130,000 dozens in 1974, a sizeable increase of 42 per cent. The wholesale value of these flowers increased from \$943,000 to \$1,690,000, an increase of 79 per cent.

The anthurium fits very well into the State's plan to develop products for export. About 80 per cent of the anthuriums are exported to the mainland and foreign countries. Statistics of shipments to foreign countries are quite impressive. A recent survey of anthurium shippers indicated the following shipments: Japan—450 dozens per week; Germany—2,500 dozens per week; Italy—4,000 dozens per week; and Austria—100 dozens per week.

At the present time the anthurium industry has 265 acres under production. Employment consists of 95 full-time farmers and 235 part-time farmers.

Surveys of florists and consumers show that there is a very large market which could be developed on the mainland and foreign countries if the proper assistance were rendered to the industry in the way of promotion, research and transportation. This type of assistance is especially important to the industry because of high developmental costs. It is estimated that it costs \$28,000 to develop one acre of anthuriums. This includes land clearing, construction and materials of the growing sheds, mulching and bedfarming, labor, and cost of plants.

The expansion of the market for anthuriums is important for the following reasons: (1) to provide additional opportunities for investment in agricultural enterprises; (2) provide employment opportunities in diversified agriculture; (3) establish a firm market for our anthuriums; and (4) strengthen the economic base of the State's economy.

The legislature further finds that the anthurium markets are similar to those of the papaya industry: the local market in the State of Hawaii, the U.S. mainland, and foreign countries. Although these markets have been developing quite satisfactorily, there is a need to accelerate this market development because of the additional production that is expected to enter the market in the near future. The planting of 66 acres of anthuriums under artificial shading will be completed in the year 1976. In three years the production of this new acreage alone will result in an additional 52,800 dozens per month. An additional 28 acres are under consideration for planting within the next two or three years. These figures indicate the need for government support of a strong marketing and promotion effort for the anthurium industry.

The legislature further finds that transportation is also a major problem for the anthurium industry. Air transportation is the primary mode of shipment for anthuriums. However, the rising cost of air transportation is causing considerable concern among those in the industry. In addition, there is a problem of airlift capacity which involves other commodities such as papaya, ornamentals,

and even fresh fish. The exploration of improved methods of surface transportation as well as the development of a system of packaging and improved packing containers, are important needs of the industry.

Legislative findings relating to the ornamental foliage industry. The legislature finds that there exists an economic potential in the ornamental horticultural industry for expansion in the State of Hawaii for export market. There exists a necessity for significant increase in research, education, and development in: (1) culture and management, (2) cost of production, (3) post-harvest handling, (4) transportation, and (5) market organization and development.

The market for ornamental foliage plants in the United States is conservatively valued at \$150 million for 1975. Correspondingly, the wholesale value for nursery and potted foliages in Hawaii has increased 286 per cent during the five-year period ending December 1974. Because of our ideal climate, Hawaii has a comparative advantage over any other production area per unit. Depending upon the type of ornamental foliage plants, certain phases of the industry could be developed on all islands.

This sector of diversified horticulture appears to have tremendous potentials for economic growth, for its growth is in consonance with, or an adjunct to, tourism, urban development, export of goods to favor the State's balance of payments and raising the standard of living of the people engaged in agricultural industries.

The legislature affirms its continued support of programs designed to enhance the growth and development of diversified agriculture in the State. The provision of public funds for the maintenance of diversified agriculture as an important part of Hawaii's economy, necessitates from time to time, the infusion of public funds for purposes directly related to the achievement of these state goals.

The purpose of this Act is to provide the much needed support for research and development of the papaya industry, the anthurium and other cut flowers industry, and the ornamental foliage industry, three industries which have contributed significantly to Hawaii's economic stability and which hold exceptional promise for strong and continued support to Hawaii's overall economy.

SECTION 2. Appropriation. (a) The papaya industry. There is appropriated out of the general revenues of the State of Hawaii the sum of \$545,000 or so much thereof as may be necessary, for fiscal year 1976-77 to be expended in the following manner:

- (1) The sum of \$220,000 be expended by the department of planning and economic development to match expenditures of the papaya administrative committee which are related to promotional and advertising efforts.
- (2) The sum of \$25,000 be expended by the department of agriculture for the purpose of providing objective production forecasts; provided, that the department of agriculture may hire the necessary staff, purchase equipment, and expend the necessary operational funds needed to maintain the program; and provided further, that papaya growers make available to the department of agriculture all of the information needed, on a confidential basis.

- (3) The sum of \$62,000 be expended by the department of agriculture for the purpose of conducting research to determine the market potential for fresh and processed papaya products; provided, that the department of agriculture may contract with the college of tropical agriculture, University of Hawaii, to carry out the intent and purpose of the study; and provided further, that all papaya growers, handlers, and shippers make available, on a confidential basis, all of the information needed to conduct such research.
- (4) The sum of \$50,000 be expended by the department of agriculture for the purpose of research and development of methods of processing papayas not marketable as fresh fruit; provided, that the department of agriculture shall contract the appropriate agency to conduct this research and development; and provided further, that the sums expended by the department of agriculture shall be made in consultation with the papaya administrative committee.
- (5) The sum of \$188,000 be expended by the department of agriculture for the purpose of improving and expanding the system of harvesting, handling, and transporting papayas to the market; provided, that the department of agriculture shall contract those agencies best suited to carry out this research, development and educational project; provided further, that the sum of \$90,000 be utilized for developing and improving methods of surface transportation, \$38,000 be utilized for developing packaging and packing systems, \$17,000 be utilized for feasibility studies of the need for dockside or airport storage facilities and preliminary planning and design, \$15,000 be utilized for acquiring a mechanical harvester, \$5,000 be utilized for research and development of alternative methods of fumigation and treatment, and \$23,000 be utilized for education and information dissemination; and provided further, that the funds expended by the department of agriculture shall be made in consultation with the papaya administrative committee.

(b) The anthurium and other cut flowers industry. There is appropriated out of the general revenues of the State of Hawaii the sum of \$229,000, or so much thereof as may be necessary, for a market development and promotion program, a market research program, and transportation and production research for the anthurium and other cut flowers industry, to be expended in the following manner:

- (1) The sum of \$92,000 be expended by the department of planning and economic development for the development and implementation of a marketing and promotion program.
- (2) The sum of \$25,000 be expended by the department of planning and economic development for the purpose of coordinating research to determine the market potential for anthuriums and other cut flowers; provided that the department of planning and economic development may contract with the college of tropical agriculture, University of Hawaii, to carry out the intent and purpose of the study.
- (3) The sum of \$62,000 be expended by the department of agriculture to research and develop improved methods of transportation and han-

dling of anthuriums and other cut flowers; provided that the department of agriculture shall contract with those agencies which are best suited to conduct this type of research and development; provided further, that the sum of \$18,000 be utilized to develop and improve methods of surface transportation, and \$44,000 be utilized to develop a system of packaging and packing containers; provided further, that in the conduct of the transportation and handling studies for anthuriums and other cut flowers, efforts should be encouraged to tie in the study of other cut flowers wherever it is deemed feasible; and provided further, that all growers and shippers of anthuriums and other cut flowers benefiting from this research shall report their volume and value of sales to the department of agriculture on a regular basis, not to be more frequently than once a month, and the department of agriculture shall keep this information confidential.

- (4) The sum of \$50,000 be expended by the department of agriculture for research on the improvement of production of anthuriums and other cut flowers; provided that the department of agriculture shall contract with the college of tropical agriculture, University of Hawaii to conduct this research.

(c) The ornamental foliage industry. There is appropriated out of the general revenues of the State of Hawaii the sum of \$150,000, or so much thereof as may be necessary, for the research and development of the ornamental plant industry; provided the sum appropriated shall be expended jointly by the college of tropical agriculture, University of Hawaii, the department of planning and economic development, and the department of agriculture with the college of tropical agriculture serving as the lead agency; and provided further that all growers and shippers of ornamental foliage benefiting from the research activities supported by appropriations made by this Act shall report their volume and value of sales to the department of agriculture on a regular basis, not to be more frequently than once a month, and the department of agriculture shall keep this information confidential.

SECTION 3. The sums appropriated shall be expended as provided in section 2 of this Act for the purposes of this Act; provided that the expending agencies designated in section 2 of this Act shall consult with the office of the governor prior to authorizing the release of any funds; provided that the sums appropriated for the advertising and promotion of anthuriums, cut flowers and ornamentals shall be expended on a nonmatching basis and provided further that any unexpended funds as of the end of fiscal year 1976-77 shall revert to the general fund of the State of Hawaii.

SECTION 4. This Act shall take effect on July 1, 1976.

(Approved June 4, 1976.)