

Duval County
Agribusiness Economic Development
Phase I Research Report

EXECUTIVE SUMMARY

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**THE TEXAS AGRICULTURAL
MARKET RESEARCH AND DEVELOPMENT CENTER**

An Education and Research Service
of
The Texas Agricultural Experiment Station
and
The Texas Agricultural Extension Service

The purpose of the Center is to be of service to agricultural producers, groups and organizations, as well as processing and marketing firms in the solution of present and emerging market problems. Emphasis is given to research and educational activities designed to improve and expand the markets for food and fiber products related to Texas agriculture.

The Center is staffed by a basic group of professional agricultural and marketing economists from both the Experiment Station and Extension Service. In addition, support is provided by food technologists, statisticians and specialized consultants as determined by the requirements of individual projects.

Robert E. Branson
Coordinator

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Research Objective

The objective of this research was to provide an overview analysis of the potential for increasing the economic base in Duval County. The County previously has not been addressed by such an analysis. In 1982, a retail trade study was made to determine the presence of shopping out of the county by Duval residents. The objective was to establish some indications of what retail establishments were possibly needed and recommendations were made for an audit of the existing establishments to seek ways of increasing their marketing skills versus outside competitors. Therefore the present agribusiness study is a further commitment toward seeking the means of improving the economy of Duval County through expansion of its agribusiness potentials.

The Research Need

The instructions for this agribusiness analysis as provided to the Texas Agricultural Market Research Center at Texas A&M University by the Economic Development Center, University of Texas at San Antonio may be summarized as follows.

1. Duval County is recognized as one of the less developed areas of the state in terms of its record of economic progress and the prevalence of a relatively high rate of persistent unemployment. Conditions have been worsened by the major economic recession, if not outright depression, in the oil and gas industry and in agriculture in Texas. These unfavorable developments reflect both national and international difficulties in these two major sectors of the overall economy.

2. In view of the economic conditions in Duval County there is urgent need for the development of expansion of agribusiness activity where promise of profitability appears possible. To do so would add to personal and business incomes in the County and, if properly directed, should provide increased employment opportunities in the area.

3. It was indicated that Duval County could qualify for federal economic development aids for depressed areas. The greatest need was centered in the central and southern portions of the county, in the area in and adjacent to the city of Benavidas.

4. The question posed was whether a potential existed for the development of an agribusiness park, as contrasted to a general industrial park, in the Benavidas area of Duval County. However, any potential elsewhere in the County should also be considered and addressed.

The Research Plan

Several facets were developed by the Market Research Center for the research plan.

1. Three field trips were made to Duval County and the adjacent areas in order to obtain familiarity with the general economy and the communities involved. In these, discussions were held with the relevant government representatives in the Economic Development Office, County political representatives, the agricultural county agent, and the local U.S. Department of Agriculture office of the Agricultural Stabilization and Conservation Service.

2. A further facet of the field trips was to contact selected

agricultural marketing firms in order to determine what marketing channels were available to serve the Duval County area. This involved primarily contacting firms in Jim Wells, Webb and Nueces counties, where marketing firms are located in or near the cities of Laredo, Alice and Corpus Christi. Further contacts were made in Pearsal (Frio County) and in Uvalde (Uvalde County).

3. A review was made of the agricultural production data for crops and livestock as reported by official government sources. Present levels as well as trends in production were evaluated.

4. An analysis was made of population and income levels and the direction of movement in these in recent years for Duval, Brooks, Jim Hogg, Jim Wells, Webb, McMullen and Nueces counties. Data from the Bureau of Economic Analysis of the U. S. Department of Commerce and from the Survey of Buying Power report of Sales and Marketing Management were both reviewed.

5. Demand estimates for selected food products in Duval County and the surrounding areas were prepared. In these, consumer purchase rates as reported by the National Consumer Expenditure Surveys of the Bureau of Labor Statistics and the Food Consumption studies of the U. S. Department of Agriculture were utilized.

6. The expertise of personnel on the research task force for this study was utilized to evaluate several alternative agribusiness enterprises as to their possible potential in Duval County.

7. General cost budgets for several potential agricultural crops were obtained and adapted to conditions in Duval county.

8. Finally a special survey was made of the principal agribusiness firms in Duval and Jim Wells counties. The objective

was to obtain a measurement of the volume of agribusiness product moved through existing operating firms.

Establishments were surveyed that belonged to the following ten categories of business:

- Fast food establishments
- Restaurants
- Institutional food services
- Grain and feed dealers
- Livestock auctions
- Farm supply firms
- Farm equipment dealers
- Food super markets
- Drive-in food markets
- Food processing establishments

Research Conclusions and Recommendations

Inasmuch as this report is an executive summary, only highlight information and recommendations are noted. A more detailed report is available. The purpose of this executive summary is to expediate the release of the major conclusions and recommendations that appear in the following series of summary statements.

** Development of any broadly based agribusiness park in Duval County does not appear feasible, based upon the findings of this Phase I study overview of the local area resources, and the market demand that can be brought to bear in the County.

** The above conclusion, however, does not mean that Duval County is

lacking economic development opportunities. Several of these are outlined in the following conclusions. Similarly some are highly improbable.

** The potential for a small beef slaughter plant is not favorable because of three negative factors.

1. The major part of the beef retail sales in the area are through supermarket food stores.
2. Of the supermarket food stores in the immediate or closely adjacent area, the dominant volume ones are members of a major food chain. That means that highly specific quality standards are used in buying dressed beef. Generally this means grain fed cattle, U. S. Choice grade yield grades 3 or better.
3. Cattle that would be available for a beef processing plant in Duval County are not the class of cattle which produce the quality of beef that is retailed by most supermarket food stores.
4. Cattle feeding is not generally present in the area. Therefore slaughter weight fed cattle of 1,000 to 1,200 pounds are not available. Local auctions are markets for stocker calves going back to ranches and mid-weight feeder animals going to feed lots. These classes of animals do not usually provide either competitively priced beef or the quality needed.
5. The volume of fresh beef sold through retail market outlets in San Diego, Freer, Benavidas and Alice (Jim Wells County) is not sufficient to support an efficient small beef

slaughter plant.

- ** Specialized canned, or frozen type, food processing plants are out of the question. The production base for raw material supply is not available in adequate supply to support the large size plants necessary to be competitive or efficient in present day markets.

- ** Given the foregoing competitive status of Duval County, it is necessary to consider the possibility of specialized product processing and marketing that can be keyed to existing marketing channels. Another alternative is have only selected small, custom processing facilities that can serve and survive on only nearby markets demand.

- ** Duval County presently has watermelon production that has persisted over a number of years. The Phase I survey suggests that there is a potential to expand production and marketing of this product. Interviews with existing produce marketing firms serving the areas indicate that an increased supply from Duval County would be desirable.

Crop production budgets of Texas Agricultural Extension Service relevant to South Texas indicate that dryland watermelons can return, on an average over a period of years, between \$130 and \$225 net profit per acre. Irrigated land has the potential of returning \$200 to \$340 per acre. These figures assume a land return, additionally, of \$30 to \$40 per acre. Prices can vary considerably from year to year. Therefore finances should be such that success depends not on a single year's operations, but rather the average over a period of years.

** Another vegetable crop that shows, on a preliminary assessment basis, an excellent potential is the growing of broccoli. The market demand for this crop has been steadily increasing nationwide for the past several years. Preliminary indications are that a net returns of from \$400 to \$800 per acre are achievable. This is in addition to a \$30 to \$40 per acre return to the land used.

** Further irrigated crops that should be considered are the following:

Spinach	\$-13 to \$603 per acre
Peppers	\$-67 to \$217 per acre
Sweet corn	\$603 per acre
Cantaloupes	\$-74 to \$337 per acre

** Increased production of irrigated vegetable crops will require an expansion of the present vegetable acreage in southeastern Duval County. Whereas some 8,000 acres were reported in earlier years, the more recent total is about 3,000 acres. It is possible that production and harvesting practices need to be reviewed and brought up to current state-of-the-art standards in order to be competitive. It appears that the minus returns (losses) indicated by one research source reflect the use of overly conservative product prices. The upper levels were based on ten-year price averages, using the latest U. S. Department of Agriculture reports.

** Budgets for the above crops reflect as nearly as possible currently reported operating costs. These have been adjusted upward to reflect the cost of newly installed irrigation systems. Contacts made with Texas Agricultural Extension specialists and commercial equipment dealers indicate that a new pivot irrigation system will cost \$60,000 to \$80,000. These are designed to be ten inch wells

with eight inch pipe casings capable of irrigating a quarter of a section of land, or 100 to 125 acres. The cost of the systems were amortized over a ten year period.

** It is strongly cautioned that none of the above or following preliminary findings are considered either sufficiently accurate or complete enough to warrant their use without a further detailed, in depth production enterprise study and analysis, such as would be included in a Phase Two economic feasibility development study.

** Initial estimates of demand for poultry (broilers) were not favorable to any further consideration as a profitable broiler production enterprise. However it was subsequently determined that a broiler growing cooperative has a unit member near Kingsville, Texas. Processing occurs at a plant outside the area which also serves other cooperative members. This raises the possibility that another broiler growing facility tied to that cooperative might be considered for Duval County.

Market analysis does not show sufficient local or nearby demand to justify a broiler processing plant. Such plants are now relatively large scale operations that require sufficient volume to warrant a full-time federal inspection crew that inspects each bird and certifies its food use safety.

Feeding rations are predominantly grain sorghum, production of which occurs in Duval, and other feed supplies would be available from Corpus Christi.

** An egg production facility should also be evaluated. Though an optimum size operation is at least 250,000 hens, size is not as critical as in broiler processing. The egg production facility would operate its own washing, grading and packing plant on or near

the premises. The growing population of South Texas and the more likely possibility of marketing to food chains makes this worth consideration.

- ** Establishment of a local area brand of fluid milk produced by a comparatively small, fluid milk only, processing plant offers another possibility for consideration in Duval County. The sales volume of the local area market, already served by at least four brands, is not large enough to support a plant, so market entry and product distribution would have to be established over a multi-county area. Advertising support would be a necessity in order to establish and support market entry into Corpus Christi, Kingsville and Laredo as well as in the local area. Possible sales to military bases in South Texas is another option. This agribusiness possibility is based on the current presence of some dairying in Duval County and the success of similar locally based enterprises elsewhere in Texas.

- ** Ranchlands in this portion of the state abound with mesquite trees, which are an obstacle to grass production on rangeland. This agribusiness study has determined that marketing channels are in place and available to harvest mesquite for the charcoal cookery market nation-wide. Contract arrangements are necessary between the harvesting firm and local ranch owners. Future systems of mesquite production and harvesting are presently being researched.

- ** Texas sage harvesting, culture and marketing is a relatively recent development. This plant is a premium priced item at landscape nurseries and plant retail establishments. Thought not to be transplantable, this is not the case. Consideration should be directed toward harvest of the abundant stock of native sage plants

in the Duval and nearby county areas. A wholesale nursery or nursery supply business should be given consideration.

Implications for an
Agribusiness Park

Most of the foregoing agribusiness possibilities are not well adapted to an agribusiness park concept. However, several are. Based upon an analysis of the market data generated in this Phase I study, the following park location possibilities could be considered.

Fruit and vegetable
packing shed and hydrocooler

Mesquite harvest
assembly and shipping facility

Egg grading and
packing facility

Fluid milk processing plant

Except for the mesquite handling facility, these facilities would be utilizing production primarily from the southeastern section of Duval County. Because of the road network in the county, development of the agribusiness park in or near Benavidas or San Diego appears to be a feasible location.

Agribusiness Development Cautions and Problems

None of the foregoing enterprises should be attempted without a detailed feasibility study of whichever ones are selected for further consideration. Detailed feasibility studies are costly and should not be initiated until the recommendations in this report are reviewed, discussed and evaluated in terms of whether there are people, finances, and sufficient business expertise available, or obtainable, to assure the success of any of the selected ventures.

Capital requirements are substantial for some of the proposed agribusinesses. Preliminary discussions would be essential to ascertain what funding sources are available and under what conditions and terms. Insufficient capital to see a business through the initial years of business development is one of the major causes of new business failures.

Furthermore some of these marketing facilities are large users of water and generate a substantial amount of waste water requiring sewage plant treatment. These costly facilities must be provided by the agribusiness park, or the city must have such facilities available and in operation.

Employment Impact

Several economic development possibilities were eliminated because the market research findings did not indicate sufficient market potential for their success. Of the set of possibilities discussed herein, most are more capital intensive than labor intensive. Consequently the monetary flows generated are low generators of local employment. Also some, such as the vegetable (including watermelon) production and marketing are seasonal in nature. It is strongly recommended that opportunities for substantial employment be sought in

the manufacturing sub-contracting businesses. Thus both agribusiness and general manufacturing possibilities should be pursued simultaneously.

Further details of this study are available in the supporting main report.