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**LAC TECH**

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**AGRICULTURE AND RURAL DEVELOPMENT TECHNICAL SERVICES PROJECT**  
AID/LAC/DR/RD, CHEMONICS INTERNATIONAL, U.S. DEPT. OF AGRICULTURE

**CARIBBEAN BASIN GROWERS ASSOCIATION**

**INFORMATION SERVICES AGENDA:  
SURVEY ANALYSIS AND RECOMMENDATIONS**

**Submitted to:**

**CBGA Interim Board of Directors  
A.I.D. LAC/DR/RD**

**Submitted by:**

**David B. Flood  
LAC TECH Consultant**

**June 1992**

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## LIST OF ACRONYMS

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ADCU	Agricultural Diversification Co-ordinating Unit (of OECS)
ADF	Agricultural Development Foundation (Dominican Republic)
AID	U.S. Agency for International Development
APENN	Nicaraguan Association of Producers and Exporters of Non-traditional Products
APHIS	Animal and Plant Health Inspection Service (division of USDA)
BABCO	Belize Agri-Business Company
CADER/ISA	Instituto Superior de Agricultura (Dominican Republic)
CATCO	Caribbean Agricultural Trading Company
CATIE	Tropical Agronomic Research and Development Institute (Turrialba, Costa Rica)
CBGA	Caribbean Basin Growers Association
CBI*	Caribbean Basin Initiative
CINDE/	
DIVAGRI	Costa Rican Coalition for Development Initiatives
EPA	U.S. Environmental Protection Agency
EXITOS	Export Industry Technology Support Project
FDA	U.S. Food and Drug Administration
FFVA	Florida Fruit and Vegetable Association
FHIA	Honduran Agricultural Research Foundation (La Lima, Honduras)
FPX	Federation of Agricultural and Agroindustrial Producers and Exporters of Honduras
FUSADES/	
DIVAGRO	Salvadoran Foundation for Economic and Social Development
GEXPRONT	Non-Traditional Products Exporters Association (Guatemala)
GREXPAN	Guild of Exporters of Non-traditional Crops of Panama
JACC	Joint Agricultural Coinvestment Council (Dominican Republic)
JADF	Jamaica Agricultural Development Foundation
JAREF	Joint Agricultural Research and Education Feasibility study
LAC TECH	Latin American and the Caribbean Agricultural and Rural Development Technical Services Project
OECS	Organization of Eastern Caribbean States
PROEXAG	Non-Traditional Agricultural Export Promotion Project
TROPRO	West Indies Tropical Produce Support Project
UFFVA	United Fresh Fruit and Vegetable Association
USDA	U.S. Department of Agriculture
USTR	U.S. Trade Representative

\*The CBI countries include all of Central America and most Caribbean nations.

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## EXECUTIVE SUMMARY

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This study analyzes the "Key Horticultural Information Services" survey which was conducted by the Latin American and Caribbean Agriculture and Rural Development Technical Services project (LAC TECH) on behalf of the Caribbean Basin Growers Association (CBGA) interim Board of Directors. It used a purposive sampling methodology targeted to investigate demand among potential CBGA members for certain "information products" identified in the survey questionnaire. The overall conclusion reached from the survey analysis is that while these ten information products are useful to varying degrees, they do not in themselves fully comprise the dynamic CBGA "information services agenda" that will be needed.

The study makes a number of recommendations. Among the most important are that:

- The current, interim CBGA Board of Directors finalize the process of organizing the CBGA by recruiting members
- At the earliest possible date, the CBGA Board of Directors establish an information services committee, perhaps with one representative each from Central America, the Caribbean, and the U.S. Gulf Coast states
- The CBGA Board of Directors hire an information services specialist at the earliest possible date
- The present report be reviewed by the information services committee and specialist
- The information services committee and specialist circulate this report, or an executive summary of it, to the CBGA membership, with a request for review and comment
- Once the information services committee and specialist have reviewed the members' comments on the report, the committee and specialist establish an action plan for defining and implementing the CBGA information Services agenda
- This action plan, once formulated, will be submitted to the CBGA Board of Directors for review, appropriate modification, and approval
- The CBGA information services specialist, in collaboration with the information services committee, would move expeditiously to implement the approved CBGA information services agenda

It is also recommended that the CBGA consider the possibility of conducting a market test of datasets for potential distribution to CBGA members and others in the produce trade. This market test would be based on a model market information system that would include the ten "information products" addressed by this survey but also an information capability that would be far more responsive to the CBGA members' information needs.

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## SECTION I INTRODUCTION

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In the fall of 1991, the interim Board of Directors of the Caribbean Basin Growers Association (CBGA) requested the U.S. Agency for International Development (AID) provide, through the Latin American and Caribbean Agriculture and Rural Development Technical Services Project (LAC TECH), assistance in conducting a market survey aimed at defining a draft information services agenda for the CBGA.

The survey sought input from potential CBGA members concerning what "information products" the association might offer. "Information services" comprises one of four potential CBGA service areas, according to the CBGA "Draft Business Plan" of August, 1991. The three other areas are applied research, public affairs, and problem/opportunity identification, according to that same business plan. Another market survey, for the applied research area, was conducted earlier (see Flood, 1992).

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## SECTION II TERMS OF REFERENCE

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To prepare a draft information services agenda for review by the CBGA, the study's scope of work called for the following tasks:

- Preparation of a simple tabulation, including rank orders, of the survey responses
- Identification of major trends or patterns in the questionnaire responses, including any ones common across the three Caribbean Basin subregions—the Caribbean, Central America, U.S. Gulf Coast states—and those unique to just one or two of the subregions
- Interpretive analysis of the data, taking into account the consultant's previous experience working in the Caribbean Basin Initiative (CBI) countries with host-country export support organizations, information sources, and service providers
- A draft information services agenda defining the priorities and thrusts of a CBGA-sponsored information program to service the information needs of the client CBGA member organizations and their constituencies
- Review of the draft information services agenda with the staff of PROEXAG II, the Non-traditional Agricultural Export Support Project. PROEXAG II is the agricultural component of the larger Export Industry Technology Support Project (EXITOS), which is funded by the AID Regional Office for Central American Programs (USAID/ROCAP)

The CBGA's potential membership includes grower associations and export support organizations in the CBI countries of Central America and the Caribbean and in the U.S. Gulf Coast states (CBGA Business Plan, 1991).

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## SECTION III METHODOLOGY

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This report is based on an analysis of data collected by the LAC TECH project through a survey of potential CBGA members. Key methodological points about the sample, survey questionnaire, and the analysis follow.

### A. The Sample

The CBGA's primary membership would consist of grower associations in the CBI countries and the U.S. Gulf Coast states, according to the CBGA Business Plan prepared in 1991. In turn, these organizations would pass information, free or at a nominal charge, to their members and other interested parties. Thus, the survey sought to obtain feedback from both audiences.

The sample was comprised of growers associations in the CBI countries, a Florida growers association, and a small number of private U.S. horticultural firms. The final purposive sample, while targeted at and fully representative of the potential CBGA membership, also included a small number of other organizations that might be interested in the CBGA's information services. Annex A provides a listing of this purposive sample, which included primary recipients—potential CBGA members—and secondary recipients—others potentially interested in CBGA information services.

The survey was conducted by sending the questionnaire to the recipients by fax. It was sent on or soon after November 14, 1991, asking the respondent to return the completed questionnaire by fax by November 21. The short time frame for response was dictated by the desire of the CBGA board to incorporate the survey results into the draft CBGA Business Plan that also was being finalized at that time. Despite this short time frame, there was a high response to the survey, indicating that information services is a topic of great interest to the CBGA membership. Specifically, the following potential CBGA members responded to the survey:

- Caribbean: Dominican Republic (JACC)  
Jamaica (JADF)  
Eastern Caribbean (ADCU and three others)
  
- Central America: Belize (BABCO)  
Costa Rica (CINDE/DIVAGRI)  
Guatemala (GEXPRONT)  
Honduras (FPX)  
Panama (GREXPAN)
  
- U.S. Gulf Coast: Florida (FFVA)

## **B. Response to the Survey**

Of 12 potential CBI primary recipients, nine completed the survey questionnaire and returned it to LAC TECH, resulting in a 75 percent response rate. Actually, the response rate was higher since the survey questionnaire was not faxed to Haiti because of problems there at that time. Also, LAC TECH was unable to fax the questionnaire to the Nicaraguan Association of Producers and Exporters of Non-traditional Products (APENN). Thus, of the potential primary recipients that received the survey questionnaire, only the Salvadoran Foundation for Economic and Social Development (FUSADES/DIVAGRO) did not reply.

On the other hand, there was a very low response rate from the secondary recipients. Of nine U.S. horticultural commercial firms receiving the survey questionnaire, only A. Duda and Sons, Chestnut Hills, and J.R. Brooks replied, a 33 percent response rate. Of six additional potential respondents in the CBI countries, the survey questionnaire could not be faxed to three of them. Responses were not received from three others: the Honduran Agricultural Research Foundation (FHIA) and the Agricultural Development Foundation (ADF) and the *Instituto Superior de Agricultura (CADER/ISA)*, both in the Dominican Republic. It should be noted that these three secondary recipients were research, education, and/or development organizations that would not be directly involved in horticultural production and/or marketing. (See Annex A for a complete listing of groups that replied to the questionnaire and those that did not.)

Generally, the low response rate from the secondary recipients reflects the lower priority they place on the CBGA as a potential market information source. As pointed out later in this report, U.S. commercial horticultural firms already have relatively good access to the market information they need. The secondary recipients in the CBI countries mainly focus on research, education, and development and do not directly involve themselves in horticultural production or marketing.

In summary, the survey had a very high response rate for the primary recipients, and a very low response rate for the secondary recipients. As a result, the data presented in this report can be validly interpreted as representing information services needs of the potential CBGA membership. At the same time, it should be emphasized that the total sample size, in terms of the number of completed and returned survey questionnaires, is small. Nevertheless, the primary respondents, typically grower associations and/or export support organizations, generally are representative of their memberships or constituencies.

Keeping in mind the above caveats, the report's analyses should be interpreted as providing a general indicator of horticultural grower information needs that could be addressed by the CBGA's information services program. In other words, the study's conclusions should be viewed as suggestive, rather than definitive, and as requiring further discussion and refinement by the CBGA Board of Directors.

## **C. The Survey Questionnaire**

The survey questionnaire on "Key Horticultural Information Services" was developed by the LAC TECH project in consultation with the interim CBGA Board of Directors and the staff of PROEXAG II/EXITOS. The questionnaire and a summary of the responses to it are attached as Annex B and Annex C, respectively. The questionnaire listed ten potential "information products." The respondents were asked six questions related to each product.

### **1. Information Products**

The ten information products identified by the CBGA Board of Directors were as follows:

- Quarterly summary, three months lagged, of volumes of 25 selected crops imported into the U.S., based on U.S. Department of Commerce data
- Semiannual summaries of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA/APHIS) lists of admissible crops from each CBGA country, coupled with quarterly updates on changes in admissibility
- Completion/distribution to all members on a semiannual basis of bulletins describing pesticides registered with the U.S. Environmental Protection Agency (EPA), for all major CBI and Florida crops
- Flash bulletins on major regulatory decisions by EPA, the U.S. Food and Drug Administration (FDA), USDA/APHIS, and the U.S. Customs Service
- Periodic summaries of major policy determinations, regulatory decisions, and trade agreements promulgated by EPA, FDA, USDA/APHIS, U.S. Customs, and the U.S. Trade Representative (USTR)
- Electronic search/review/acquisition service for agricultural technology
- Maintenance and distribution of three-year historical price series for past seasons for key crop/market combinations
- "Source"—that is, obtain, analyze, and provide—publicly available background information on prospective buyers or joint venture partners
- Sources of inputs and services for horticultural production
- Information coordination and analysis services for crisis situations, such as salmonella in melons, cholera, and product tampering

## 2. Questions

For each of the ten information products, the following six questions were asked, with the indicated response categories provided for the respondent to mark:

- To what extent is the information covered by this product of interest to horticultural growers in your country? (None, Low, Medium, High)
- How many times per month are you asked for the type of information covered by this information product? (No. times: \_\_\_ per mo.)
- To what extent do you already collect and compile the information covered by this information product?  
(Not at all, Rarely, Occasionally, Systematically)
- To what extent do you disseminate the type of information covered by this information product? (Not at all, Rarely, Occasionally, Systematically)
- Please indicate to what extent your organization would be willing to collaborate with the CBGA by providing input to and/or distributing (i.e., retailing) this information product in your country? (None, Low, Medium, High)
- Compared with the other information products listed, what priority should the CBGA place on becoming a central source for this information product? (None, Low, Medium, High)

Respondents also were asked to indicate other key information needs of growers that were not adequately addressed in the questionnaire's short list of ten information products.

Finally, each respondent was asked to indicate specific ways his or her organization would be willing to collaborate with the CBGA in providing input to the CBGA and/or in disseminating, that is, retailing, specific CBGA information products in that country.

As the reader may observe in Annex B, the survey questionnaire was presented in a matrix format on two pages. The ten potential information service products were listed in the rows, the six questions in the columns, and the response categories in the cell where each row (product) and column (question) intersected. This provided a convenient way for the respondents to complete the questionnaire and return it to LAC TECH for analysis.

## C. Analysis

Except for question 2, for analytical purposes, weights from 0 to 9 were attached to the answers, with 9 being the highest score. For question 2 a specific numerical answer was requested. Taking into account the higher numbers generated by the responses to question 2, the vertical axis of graphs illustrating the survey responses runs from 0 to 14.

Responses were tabulated in a Lotus computer software file, which generated sums and averages for the answers to each of the questions. Those averages were used in analyzing rank orders of interest in the different information products and in identifying trends. Again, the reader is cautioned that because of the small sample size, the data is **indicative** of the information service needs of CBI horticultural growers as represented by the primary survey respondents, which were grower associations and expert support organizations.

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## SECTION IV FINDINGS

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### A. Rank Order of Responses

For the ten individual information products, a "score" and a rank order of interest was established. This was done by summing the averages under each product at the bottom of each of the three pages of the "Summary of Responses" (see line marked "AVG" in Annex C). The scores and rank orders are shown in Table 1 (page 12).

The top three ranked information products concerned pesticides, policies, and production services and inputs. Those results are consistent with the findings of a 1990 report, the "Feasibility Study on the Potential Benefits of Joint Agricultural Research and Education in the Caribbean." That so-called JAREF study found similar technology or research constraints on increased fruit and vegetable production and trade in the CBI region.

However, the results also point to the importance the potential CBGA membership places on market-oriented information products. The interest in having the CBGA offer such market-oriented information was emphasized in preliminary CBGA planning meetings during 1990 and 1991 in Washington, D.C., Orlando, and Miami. At these meetings, representatives of potential CBGA member organizations elected an interim Board of Directors, identified market information as a potential CBGA service, and proposed that the CBGA play a role as a wholesaler of such information. Thus, the "Key Horticultural Information Services" survey questionnaire sought systematic input from potential CBGA members as to the nature of the information services the association should offer.

### B. Regional Variations

Overall, interest in the CBGA providing the ten information products listed in the survey ranged from a high of 6.58 among Central American respondents, to a low of 4.01 among U.S. respondents. The interest level score for Caribbean respondents was 5.18. The average for all three subregions was 5.25. This pattern of response reflects the lower interest that U.S. growers have in the CBGA being a provider of "market information," as compared with its role as a facilitator of research on improved production and postharvest handling technologies.

In the following section, the survey results are summarized and evaluated for each of the survey's six questions. The discussion for each question is in reference to an accompanying graph that provides a visual representation of how each subregion responded to each of the ten information products.

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**Table 1. Rank Order of Potential CBGA Information Products**

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<u>Information Product/Product No.</u>	<u>Score</u>	<u>Rank</u>
Completion/distribution to all members on semiannual basis of bulletins describing EPA-registered pesticides for all major CBI and Florida crops/3	39.7	1
Periodic summaries of major policy determinations, regulatory decisions, and trade agreements promulgated by EPA, FDA, APHIS, U.S. Customs, USTR/5	35.2	2
Sources of inputs & services for horticultural production/9	33.8	3
Flash bulletins on major regulatory decisions by EPA, FDA, APHIS, U.S. Customs/4	32.9	4
Semiannual summaries of USDA/APHIS lists of admissible crops from each CBGA country, coupled with quarterly updates on the status of changes in admissibility/2	30.8	5
Source publicly available background information on prospective buyers or joint venture partners/8	30.4	6
Maintenance and distribution of 3-year historical price series for past seasons for key crop/market combinations/7	30.3	7
Quarterly summary (3 month lagged) of volumes of selected (i.e.,25) crops imported into the U.S., based on Dept. of Commerce data/1	29.6	8
Information coordination and analysis services for crisis situations (e.g., salmonella in melons, cholera, product tampering)/10	29.5	9
Electronic search/review/acquisition service for agricultural technology/6	22.7	10

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## **C. Analysis of Responses to Individual Questions**

### **1. Grower Interest in Information Products**

Information is a high priority item among respondents to the questionnaire; thus, interest in the CBGA as a provider of information is high (see Figure 1, page 14). Of the six questions asked, question 1's average score (6.1) was higher than the other questions' average scores. On average, interest in the ten information products was within a range of 2 points, while interest among the various subregions was within one point of each other.

U.S. interest in this activity lags behind the interest of the other subregions. This difference may be explained by noting that most of the information products mentioned in the survey already circulate widely among U.S. interests. Also, of course, the Florida Fruit and Vegetable Association would mainly be interested in distributing information to its own membership. Indeed, FFVA interest in the CBGA largely lies in what this association could contribute in the way of research and technology. Consequently FFVA accorded CBGA information services a lower priority.

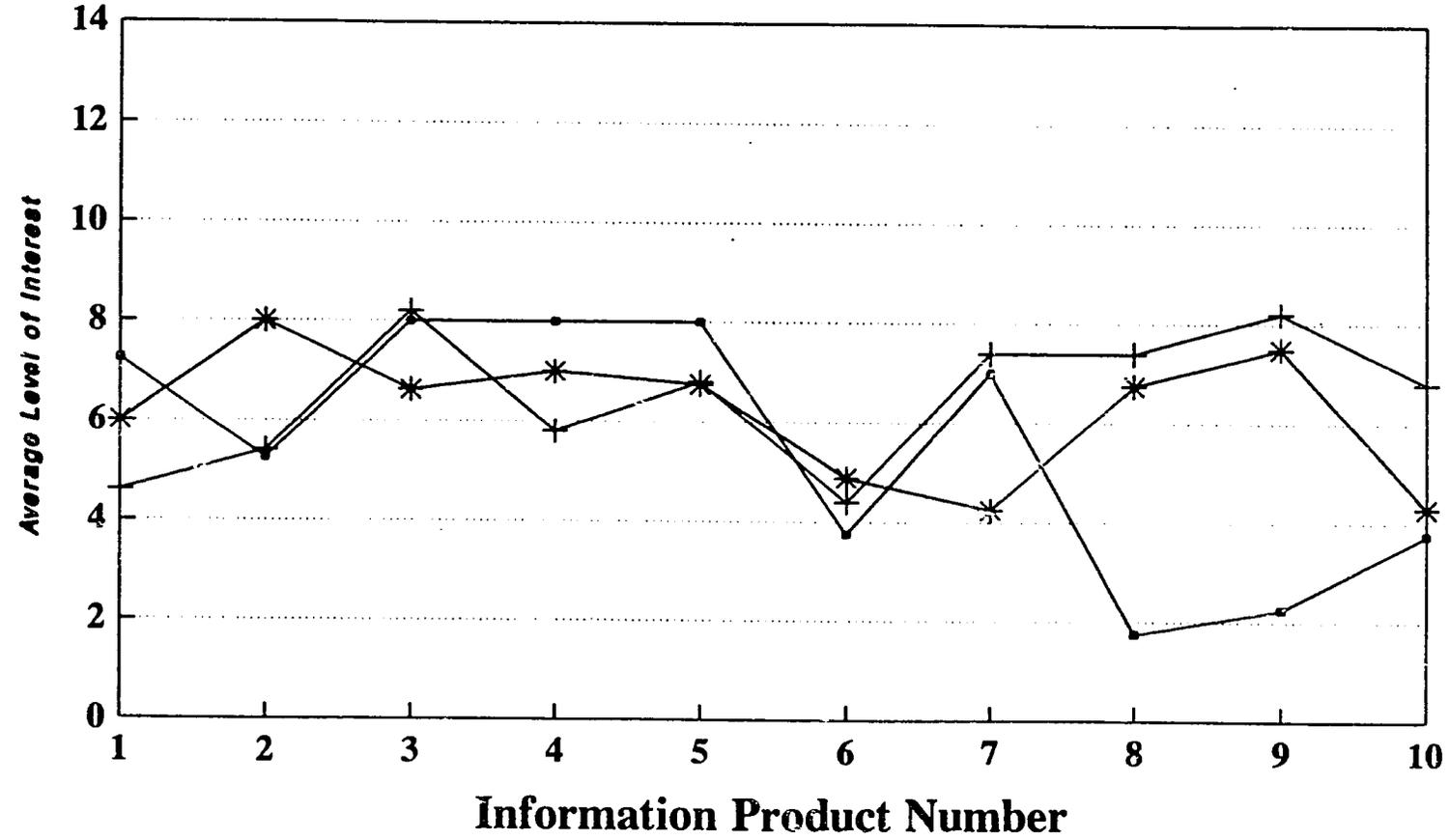
Suggestions are made later in this paper concerning strategies the CBGA could pursue as an information vendor to better respond to unmet information needs of the FFVA, other similar groups in the U.S. Gulf states, and the donor community.

There are some notable subregional variations of interest in the different information products. For example, Caribbean interest in crop admissibility reports is notably greater as compared with the two other subregions. This may reflect the existence of the USDA-approved and administered pre-clearance facilities in Jamaica and the Dominican Republic, which have raised awareness and created grower demand for such information.

Interest generally is low across all the subregions in the electronic information service for agricultural technology. This is not surprising. Even among the highly sophisticated trade associations, such as the United Fresh Fruit and Vegetable Association (UFFVA), electronic inquiries and on-line searches constitute less than five percent of all requests for information. Most of those information requests are made in writing, by telephone, or by fax.

The notable low on this graph is the interest that U.S. respondents have in information related to joint ventures. This may be explained by noting that four of the five companies surveyed in the U.S. are large private companies whose competitive edge in the market derives partially from sourcing arrangements and other deals they consider proprietary. The other U.S. respondent, the FFVA, would not be likely to go beyond a minor supporting role on behalf of its members, who would close deals and pursue joint ventures themselves.

### Fig 1. GROWER INTEREST IN INFO PRODUCT



- 1) Quarterly Crop Import Volume Summaries
- 2) 2x Per Year Crop Admissibility
- 3) 2x Per Year Pesticide Bulletins
- 4) Flash Regulatory Bulletins
- 5) Periodic Summaries of Policy Changes
- 6) Agricult. Technology Electronic Network
- 7) Three-Year Price Series
- 8) Information on Buyers and Joint Venture Partners
- 9) Inputs & Services Related to Hort Production
- 10) Crisis Coordination and Analysis

FIGURE 1. Grower interest in the CBGA as an information provider is generally high in all three of the subregions surveyed.

## **2. Times per Month Information Requested**

On average, there were five requests per month for the information products mentioned in the survey (see Figure 2, page 16). Central American respondents receive information requests far more often than the respondents in the other subregions. Factors accounting for this difference may include the higher level of development, faster growth, and larger size of the horticultural subsector in Central America as compared with the Caribbean; the headway made by PROEXAG and the regional federations in terms of making such market information available, as a product of the PROEXAG-based Commodity Price Database and related information dissemination; and/or Central American needs for translation from English to Spanish of information on U.S. markets.

Overall interest in information related to pesticides and inputs and services related to horticultural production was high, notably so in Central America, reflecting the heavy requirements that horticultural crops have for purchased inputs.

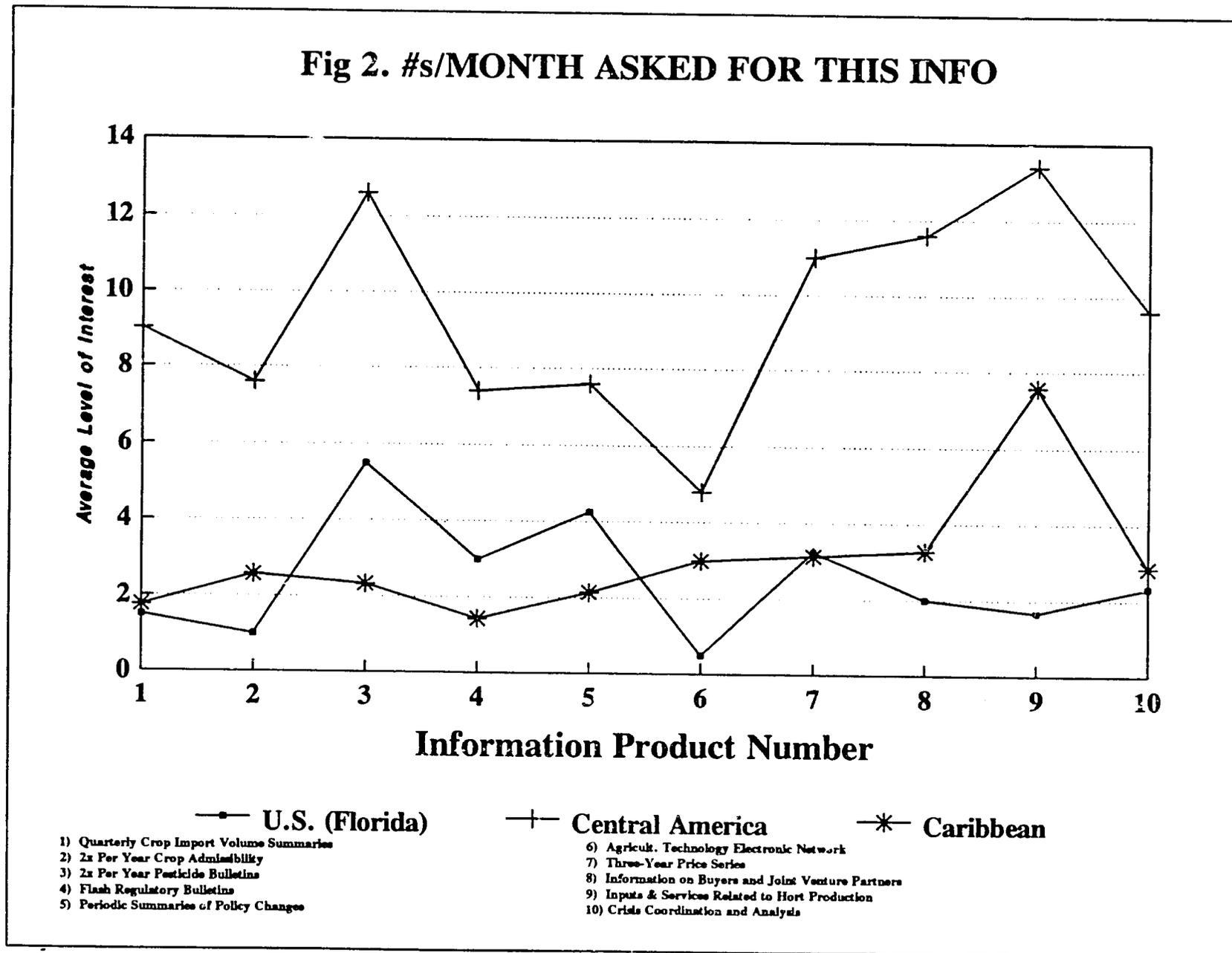
Relatively high demand for information related to inputs and services reflects the importance of technology to successful competition in horticultural markets. Yet Figure 2 depicts an apparent low level of interest among Caribbean respondents in horticultural information. This does not necessarily reflect that Caribbean growers are disinterested in such information. Rather, it may mean grower associations and export support organizations in the Caribbean have not yet developed to the point that they have become a primary source of information for growers. For example, such grower-shippers as the Caribbean Agricultural Trading Company (CATCO), and such marketing groups as CFDC in Dominica generally are not asked for this type of information. On the other hand, trade associations frequently are asked for such information, as indicated by the high scores given by JACC and the Agricultural Diversification Co-ordinating Unit (ADCU) of the Organization of East Caribbean States (OECSS) to this same question.

## **3. Already Collect/Compile Information**

On average the Caribbean is less active than the two other subregions in collecting and disseminating information addressed by the survey's 10 information products (see Figure 3, page 17). And Central America is more active in already collecting the range of information addressed by the survey, for the reasons discussed in subsection 2 above. This partially is a function of who responded to the survey. In the Caribbean, only two of the eight respondents are trade associations, whereas in the Central American subregion all five respondents are trade associations.

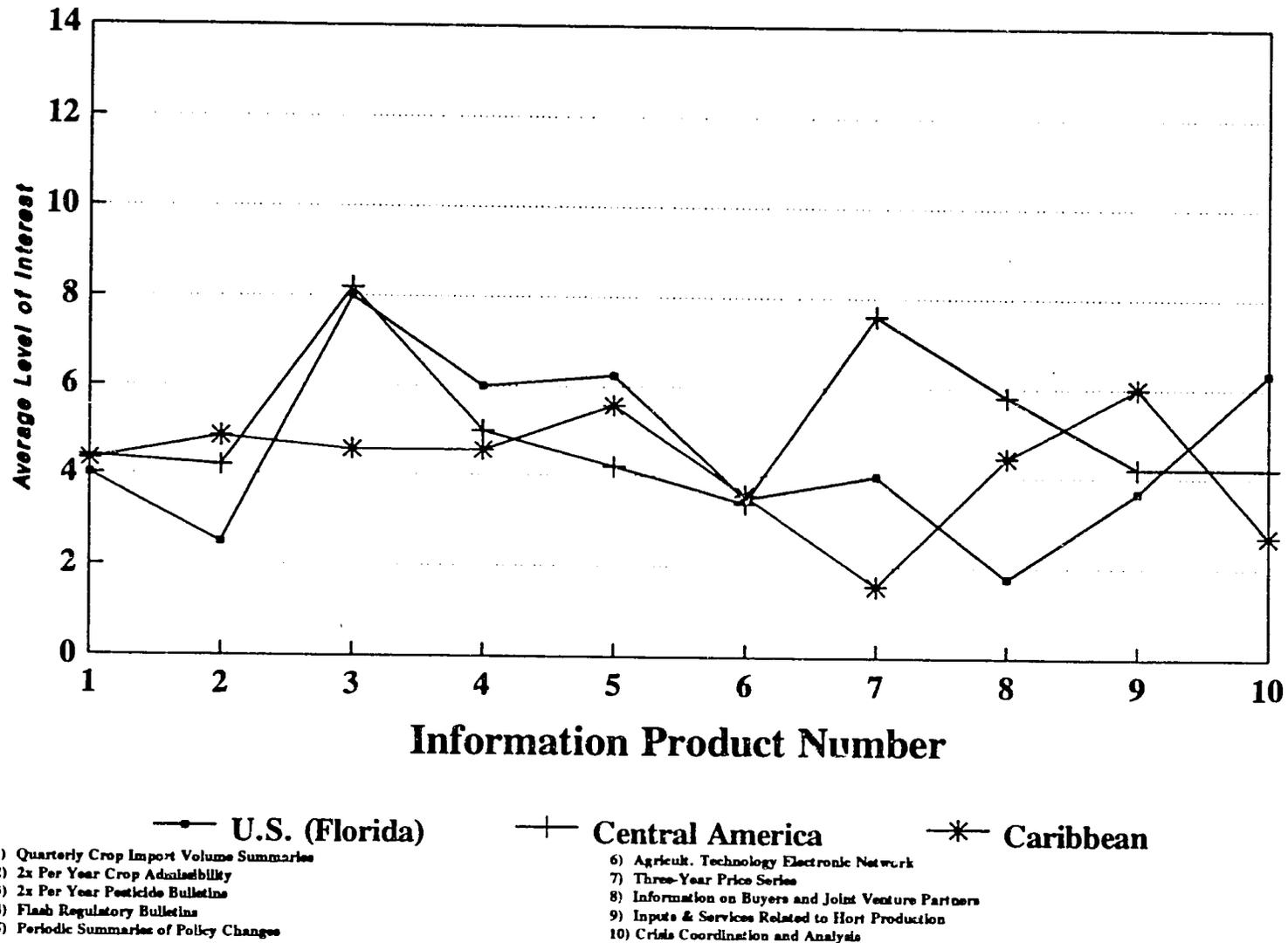
Across all regions, a few points apply:

- Collection of pesticide information is more common than is collection of the information contained in the other information products.



*FIGURE 2. Central American survey respondents reported receiving information requests much more frequently than the respondents in the Caribbean and the U.S.*

**Fig 3. ALREADY COLLECT/COMPILE THIS INFO**



*FIGURE 3. The subregion most active in collecting and compiling the ten information products surveyed is Central America; the U.S. and the Caribbean rank somewhat lower.*

- Few respondents undertake electronic searches for information on agricultural technology. As noted under question 1, electronic data searches are not a common way of retrieving data among produce business interests.
- Interest is relatively high in periodic summaries of policy changes (information product 5). Thus, a potential role for CBGA as a policy analyst could be a logical offshoot of the association's involvement in the regional dialogue on trade issues.

Generally, collection and compilation of the information addressed by the ten information products is constrained by a lack of resources, as described under the next question.

#### **4. Degree of Information Dissemination**

Of the six questions in the survey, this question achieved the lowest average score. As reflected by the data graphed in Figure 4 (see page 19) information dissemination is an infrequent activity among most questionnaire respondents.

The subregional differences evidenced in Figure 4 again reflect the respondents' varied activities. Central America, where all the survey respondents were trade associations, is more active, for example, in disseminating information related to joint ventures than is the Caribbean, where grower-shippers and groups other than trade associations dominated the respondent list.

In Central America and the Caribbean, information dissemination generally depends on donor resources, at least as regards nontraditional export crops in foreign markets. Costs associated with personnel, communications, and equipment tend to limit dissemination in the area.

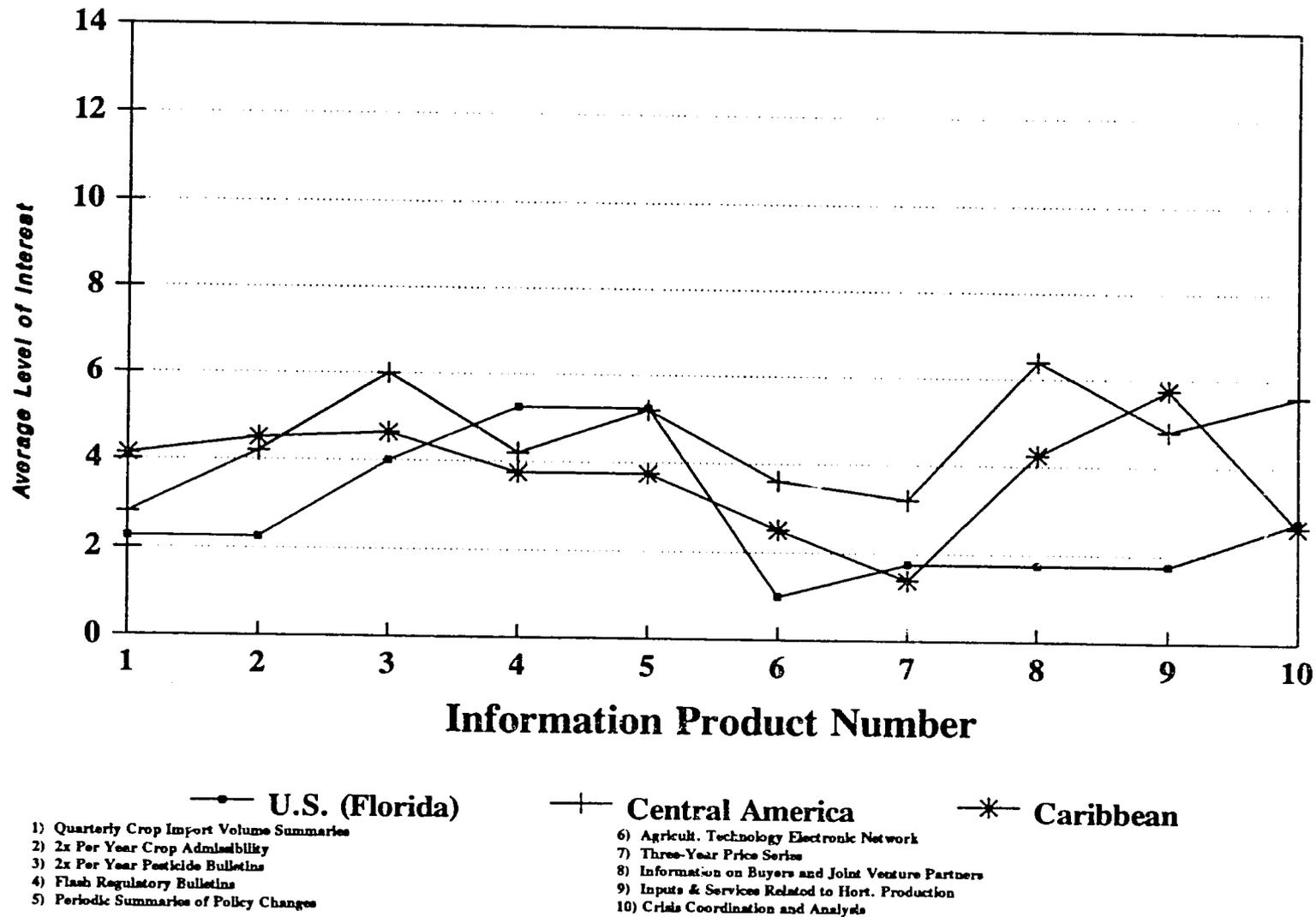
By comparison, private growers in the U.S. generally would not need to distribute information. Instead, they are end users of the information products covered in the survey.

Information related to joint ventures and to pesticides are the two subjects most frequently disseminated. Distribution of three-year price summaries is limited in the U.S. and the Caribbean. Private companies generally would not be called upon to disseminate such information.

#### **5. Willingness to Collaborate with CBGA**

Figure 5 (page 21) shows clearly a wide range in interest levels among the three subregions in their willingness to collaborate with the CBGA, by providing input to and/or distributing—that is, retailing—the ten information products. U.S. interest in collaborating with the CBGA was the lowest of the three, with an average interest level of just 2.8. Collaborative interest among Central American and Caribbean respondents averaged more than twice as high. Even with the apparently lukewarm U.S. interest, this question overall ranked second among the six in terms of constituent interest.

**FIG 4. DEGREE DISSEMINATION OF THIS INFO**



*FIGURE 4. The survey found a generally low level of dissemination of the ten information products in all three subregions.*

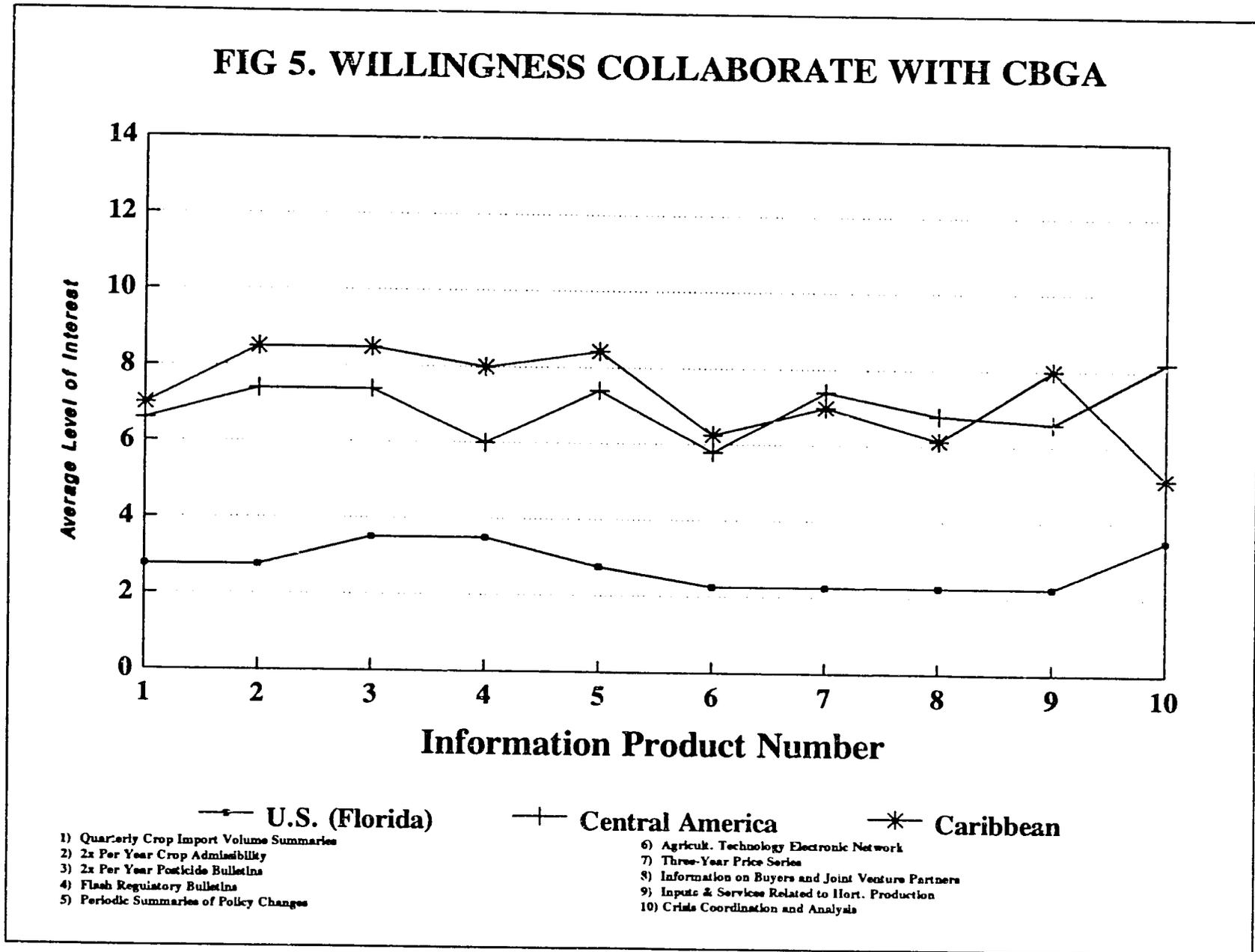
As presently cast, the information activities of the CBGA relate to collecting information on the U.S. markets and disseminating it to CBI organizations. This focus generates more interest among non-U.S. interests than it does for U.S. companies, which already have ready access to virtually all of the information mentioned in the survey. But, reversing the flow of information could be of interest to the U.S. Gulf states, that is, by collecting on the CBI countries the range of information addressed by the survey's ten information products plus others discussed below. For example, the U.S. produce industry could be a market for information collected by the CBGA, such as supply availabilities from the subregion, pesticide applications across CBI countries, and policy shifts that may influence production and trade of horticultural crops. This possibility is explored more fully below.

## **6. Priority CBGA Should Give to Information**

The survey showed the strong interest respondents had in the CBGA becoming a central source for the various information products (see Figure 6, page 22). This interest was highest in Central America, closely followed by the Caribbean. While somewhat less, the interest in the U.S. was still strong.

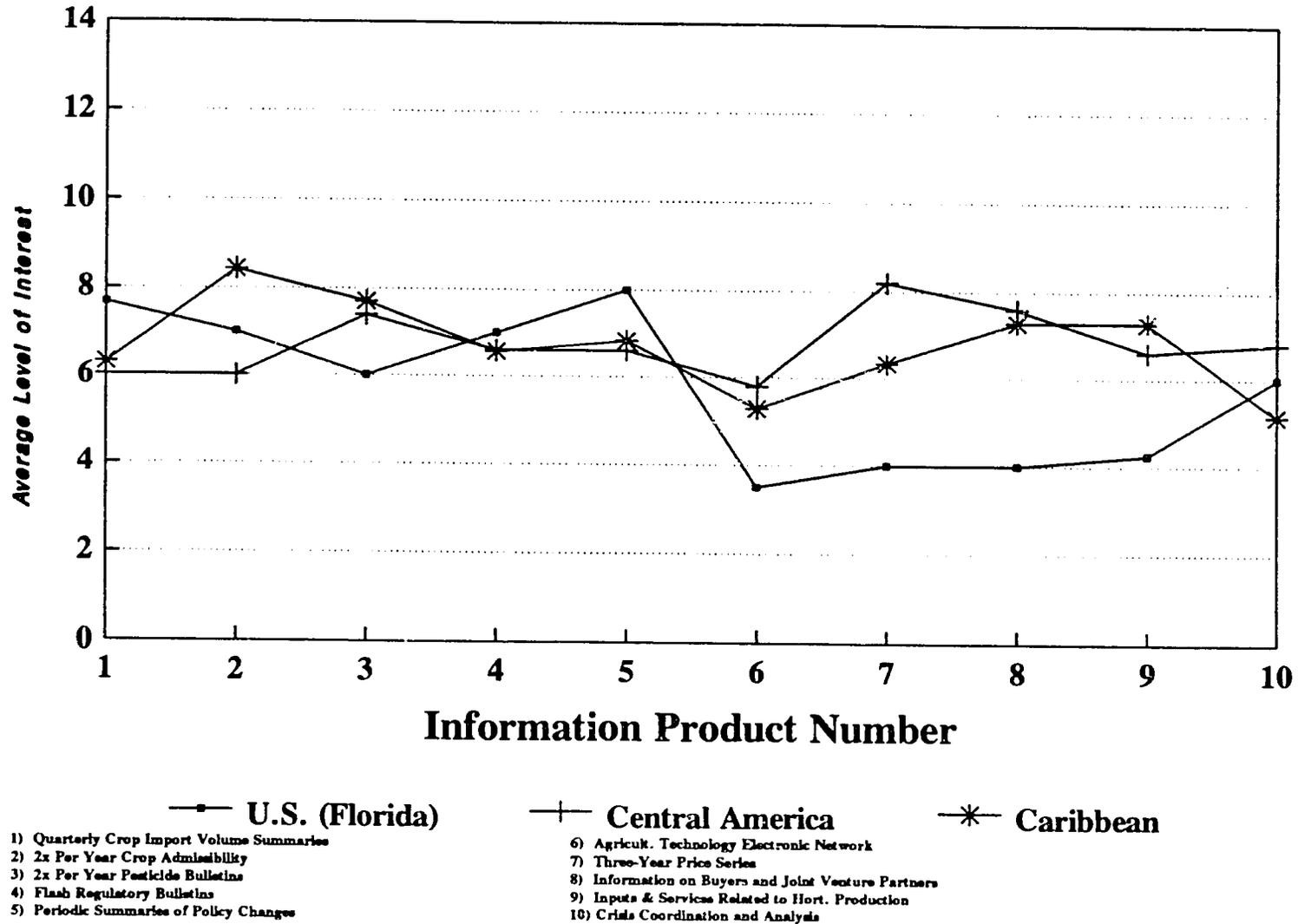
Low priority was given to the CBGA supporting an agricultural technology electronic network, especially among U.S. respondents. As noted elsewhere, U.S. respondents rely little on electronic data networks in the course of their activities. However, two information products U.S. groups did rank highly were periodic summaries of policy changes and quarterly crop import summaries.

Central American survey respondents gave a high ranking to nearly all ten information products. The three they deemed most important were three-year price series, information related to joint ventures, and pesticide bulletins. The Caribbean respondents also ranked two of those highly—pesticide bulletins and joint venture information—along with data on crop admissibility and on sources of inputs and services for horticultural production.



*FIGURE 5. Caribbean and Central American respondents were much more willing than U.S. respondents to collaborate with the CBGA on the various information products.*

**Fig 6. PRIORITY CBGA TO PLACE ON INFO**



**FIGURE 6.** Survey respondents from all three subregions indicated a generally strong interest in having the CBGA become a central source for the ten information products surveyed.

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## SECTION V CONCLUDING REMARKS AND RECOMMENDATIONS

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### A. Survey Limitations

The "Key Horticultural Information Services" survey establishes that there is generally a high level of demand for market and technology information in the CBI region. The survey responses provide evidence that the ten information products surveyed are useful to varying degrees, although they individually do not reflect a dynamic approach to a potential CBGA information services agenda. In this regard, the following survey limitations and general comments need to preface the conclusions drawn:

First, the sample was relatively small. Also, the findings were influenced by secondary recipients, such as private sector grower/packer/shipper firms in the U.S. The study would have had additional balance by surveying smaller private firms in the U.S. and CBI countries. If that had been done, the survey likely would have found a greater need for a more diverse range of information products.

Second, the information products included in the questionnaire are of a relatively static nature. One product, crop import summaries, is to be distributed quarterly. Two more products are to be distributed semiannually. They are product 2, summaries of USDA/APHIS lists of admissible crops from each CBGA country, and product 3, bulletins describing EPA-registered pesticides for all major CBI and Florida crops. Product 5, summaries of policy determinations and regulatory decisions, is to be issued on a "periodic" basis. The remaining products are to be disseminated on what would appear to be an ad hoc basis. This pattern of communication frequency could be interpreted as not providing a particularly proactive information services role for the CBGA.

Third, the generally high demand for market information within the CBI region points to the need for the CBGA to address the lack of transparency of the Caribbean and Central American horticultural product markets. The need to increase this transparency for expanded trade was emphasized repeatedly in the CBGA planning meetings and was reconfirmed in the recent evaluation of the Miami Market News Service (see Flood, 1992).

Finally, as applied research is to be a major focus of CBGA, this activity should also be viewed as an information product. This suggests that CBGA's Information Services agenda should include the results of the association's applied research activities as outlined on page 13 of the draft business plan.

### B. Conclusions

The interim CBGA Board of Directors may wish to consider that the CBGA's information service role could be expanded to include assembly, analysis, and wholesaling of the public information handled by such other trade associations as the United Fresh Fruit and

Vegetable Association, as long as that information was not protected or restricted by copyright limitations. The CBGA would wholesale the information to member national trade federations who, in turn, would retail it to their respective members.

For the Caribbean and Central American regions, this could reduce the costs associated with information dissemination by providing economies of scale for relevant trade information. CBGA's membership of regional trade associations could concentrate on tailoring the market data wholesaled by CBGA. For example, where the CBGA might produce a price series on mangos, a given member of the association might derive a price series which responds to their particular needs in terms of varieties, markets, and shipment schedules.

There is strong potential for information products to be CBGA revenue generators. Such income, however, should be expected to defray only a small percentage of the CBGA's operating costs. For example, at the United Fresh Fruit and Vegetable Association, revenues from the sale of information products cover about two percent of the association's total annual costs.

Experience with other trade associations and similar groups suggests that dues-paying members will demand more timely information on a much broader range of subjects than covered by this survey. Support for this is easily found in the experience of the PROEXAG project. One could argue it is essentially an information project providing a full range of information products. Chemonics' own experience in developing market information systems under PROEXAG and the West Indies Tropical Produce Support project (TROPRO) may be used as a model to develop a CBGA information services agenda.

What might such an expanded information services agenda include? The Chemonics Trade and Investment office in Miami has developed a "Sample Implementation Plan" and a time schedule of supporting analyses of demand for market information services (see Annex D). This implementation plan could provide the framework for CBGA's information services agenda. The Chemonics plan was developed for the TROPRO project and is used here only for illustrative purposes.

On Annex D's last page, "Analysis of the Apparent Demand for MKIS Services," the individual components of the different datasets were grouped into eight information products. These eight products include this survey's ten information products, as can be seen in the "Notes" at the bottom of the page.

The Chemonics plan outlines an example of the datasets to be developed over a given period of time for different target audiences. These comprehensive datasets include a host of terms, such as export procedures, import procedures, product admissibility, pesticide regulations, grades, standards, importer/exporter directories and profiles, historical prices, packing requirements, current prices, import volumes, transport services, production information, postharvest information, and trade statistics. Other datasets contain information on trade and industry associations; an industry events calendar; varietal and cultivar information on yields and promising varieties; current yields; land use capabilities; production costs;

macroeconomic and other business, regulatory, or legal policies and constraints; port information; and such major industry events as mergers and investments.

Endowing CBGA with the information products capacity outlined in Annex D would have some implications for regional (CBI) trade federations and such export promotion projects as TROPRO and EXITOS. As noted above, CBGA would wholesale information to its members. The federations will be able to concentrate their efforts on adding value and customizing the information to meet local needs. Consequently, the information services provided by CBGA would improve the quality of information circulating in the CBI region. There would be corresponding benefits to regional trade and investment in target products and markets. CBGA's role in wholesaling information across the region would at the same time lower total regional costs for information acquisition, analysis, and distribution.

Also, the federations and projects operating in CBI countries should be in the position to be suppliers of information to the CBGA. There would be tremendous value not only to the U.S. Gulf states but also to the full range of produce trade interests from information on weekly CBI region export availabilities, on pesticide regulations and applications in Central America and the Caribbean, and all the information outlined in Annex D but concerning the CBI countries themselves.

Based on the above considerations, the following section presents the study's proposed recommendations.

### **C. Recommendations**

This report provides input to the CBGA's interim Board of Directors on the association's information services agenda. This report makes the following eight recommendations:

- That the CBGA Board of Directors finalize the process of organizing the CBGA, that is, recruiting members
- That, at the earliest possible date, the CBGA Board of Directors establish an information services committee, perhaps with one representative each from Central America, the Caribbean, and the U.S. Gulf Coast states
- That, at the earliest possible date, the CBGA Board of Directors hire an information services specialist
- That the present report be reviewed by the CBGA information services committee and the information services specialist
- That the information services committee and specialist circulate the report, or an executive summary of it, to the CBGA membership, with a request for review and comment

- That the information services committee and specialist review the members' comments on the report and then establish an action plan for refining and implementing a CBGA information services agenda
- That the action plan, once formulated, be submitted to the CBGA Board of Directors for review, appropriate modification, and approval
- That the CBGA information services specialist, in collaboration with the information services committee, move expeditiously to implement the approved CBGA information services agenda

In support of the sixth recommendation, finalizing the CBGA information services agenda, it is also suggested that the CBGA consider the possibility of conducting a final market test of sample potential datasets to be distributed to CBGA members and others in the produce trade. As outlined in Annex D, the market survey should explore how the various CBGA information products could be delivered on a timely and cost-effective basis to users. This might be, for example, by courier, mail, electronic mail, or fax.

The final definition of the information services agenda and implementation plan would be based on the survey feedback, pending approval of the CBGA Board of Directors.

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**ANNEX A  
SURVEY SAMPLE**

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**REPLIED:**

**Caribbean:** Dominican Republic (JACC)  
Eastern Caribbean:  
Dominica (ADCU)  
(CFDC)  
Grenada (CATCO)  
(M&NIB)  
(PFU)  
Trinidad (CATCO)  
Jamaica (JADF)

**Central America:** Belize (BABCO)  
Costa Rica (CINDE/DIVAGRI)  
Guatemala (GEXPRONT)  
Honduras (FPX)  
Panamá (GREXPAN)

**U.S. Gulf Coast:** Florida (FFVA)  
A. Duda & Sons  
Chestnut Hill  
J.R. Brooks

**NO REPLY:**

**Caribbean:** Dominican Republic (CADER/ISA and ADF)

**Central America:** El Salvador (FUSADES/DIVAGRO)  
Honduras (FHIA)

**U.S. Gulf Coast:** 6 private sector firms

**COULD NOT SEND FAX:** Belize (BEIPU)  
Costa Rica (Dole)  
Guatemala (ICTA)  
Nicaragua (APENN)

**ANNEX B**

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**SURVEY QUESTIONNAIRE**

SURVEY ON KEY HORTICULTURAL INFORMATION SERVICE

INSTRUCTIONS: Please indicate your NAME ( \_\_\_\_\_ ); ORGANIZATION( \_\_\_\_\_ );& COUNTRY ( \_\_\_\_\_ )

Note: This form should be completed by the person who is in charge of your organization's information services program.

The Caribbean Basin Growers Association (CBGA) is seeking to identify a short list of the key "information products" the CBGA would develop and make available either as part of one's membership or on a fee-for-service basis. Based on the draft CBGA Business Plan and discussions at the 3rd CBGA Planning Workshop (October 23-24, 1991), the table below provides a list of 10 potential CBGA information products. Please respond to the table's questions (#1 to #6) concerning these information products. Feel free to add to or delete from the list of products. Two additional questions (#7 & #8) appear on page 2 (below table questions #4 - #6). The information from this survey will be compiled by the CBGA and used to define and prioritize the CBGA's information services program. Your response to the survey is important to the development of a CBGA information services program that meets the information needs of growers in your country. Please return the completed form to the FAX number below no later than November 21, 1991. Thank you for support. Please feel free to use extra pages to provide any open-ended commentary.

PAGE 1 of 2	Column	#1	#2	#3
Potential Short List of Key CBGA Information Products  First of Two Pages of Questions (#1 - #3)  For each item (1 to 10) below, please respond to the questions in columns #1 to #3 by placing a circle around the letter indicating your answer.		To what extent is the information covered by this product <u>of interest to horticultural growers</u> in your country?  Circle 1 Letter:  N = None L = Low M = Medium H = High	How many <u>times per month</u> are you asked for the type of information covered by this information product?  Write Number of Times Per Month:	To what extent do you already <u>collect and compile</u> the type of information covered by this information product?  Circle 1 Letter:  N = Not at all R = Rarely O = Occasionally S = Systematically
1.	Quarterly summary (3 months lagged) of volumes of selected (i.e., 25) crops imported into the U.S., based on Dept. of Commerce data.	N L M H	No. times: ___ per mo.	N R O S
2.	Semiannual summaries of USDA/APHIS lists of admissible crops from each CBGA country, coupled with quarterly updates on the status of changes in admissibility.	N L M H	No. times: ___ per mo.	N R O S
3.	Completion/Distribution to all members on semiannual basis of bulletins describing EPA-registered pesticides for all major CBI and Florida crops.	N L M H	No. times: ___ per mo.	N R O S
4.	Flash bulletins on major regulatory decisions by EPA, FDA, APHIS, U.S. Customs.	N L M H	No. times: ___ per mo.	N R O S
5.	Periodic summaries of major policy determinations, regulatory decisions, and trade agreements promulgated by EPA, FDA, APHIS, U.S. Customs, USTR.	N L M H	No. times: ___ per mo.	N R O S
6.	Electronic search/review/acquisition service for agricultural technology.	N L M H	No. times: ___ per mo.	N R O S
7.	Maintenance & distribution of 3-year historical price series for past seasons for key crop/market combinations.	N L M H	No. times: ___ per mo.	N R O S
8.	Source publicly available background information on prospective buyers or joint venture partners.	N L M H	No. times: ___ per mo.	N R O S
9.	Sources of inputs and services for horticultural production.	N L M H	No. times: ___ per mo.	N R O S
10.	Information coordination and analysis services for crisis situations (e.g., salmonella in melons, cholera, product tampering).	N L M H	No. times: ___ per mo.	N R O S

Thank you. Please FAX both pages to: Kerry J. Byrnes  
 LAC TECH Project  
 Chemonics International  
 2000 M. St. NW, Suite 200  
 Washington, DC 20036, USA

FAX: (202) 331-8202  
 TEL: (202) 466-0649



**ANNEX C**

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**SUMMARY OF RESPONSES TO THE CBGA-SPONSORED SURVEY  
OF KEY HORTICULTURAL INFORMATION SERVICES**

Summary of Responses to the CBGA-Sponsored Survey of Key Horticultural Information Services

INFORMATION PRODUCT	#1: Grower Interest in Info Product													#2: Times per Month Asked for This Information										
	1	2	3	4	5	6	7	8	9	10	SUM	AVG	1	2	3	4	5	6	7	8	9.00	10	SUM	AVG
U.S. (Florida)																								
FFVA	9	5	9	9	9	2	5	0	0	5	53	5.3	1	1	20	10	12	1	1	0	0.00	2	48	4.8
A Duda & Sons	9	2	5	5	9	2	5	5	2	5	49	4.9	3	0	0	0	1	0	4	1	0.00	0	9	0.9
Chestnut Hill	2	5	9	9	5	9	9	2	5	0	55	5.5	0	0	0	0	2		5	5	5.00	5	22	2.4
J.R. Brooks	9	9	9	9	9	2	9	0	2	5	53	6.3	2	3	2	2	2		3				14	2.3
U.S. Sub-Total	29	21	32	32	32	15	28	7	9	15	220	22.0	6	4	22	12	17	1	13	6	5.00	7	93	9.3
Avg	7.25	5.25	8.00	8.00	8.00	3.75	7.00	1.75	2.25	3.75	55.00	5.5	1.50	1.00	5.50	3.00	4.25	0.50	3.25	2.00	1.67	2.33	23.25	2.6
CENTRAL AMERICA																								
Belize-BABCO	5	5	9	0	5	5	5	9	5	5	53	5.3	2	5	5	2	3	4	5	13	12.00	3	54	5.4
C.R.-CINDE/DIVAGRI	2	9	9	9	9	5	9	9	9	9	79	7.9	5	10	10	10	5	5	20	20	10.00	20	115	11.5
Guat.-GEXPRONT	5	2	9	9	9	2	9	5	9	2	61	6.1	15	10	20	15	20	5	10	10	25.00	5	135	13.5
Hond.-FPX	9	9	9	9	9	5	9	9	9	9	86	8.6	18	8	18	5	3	2	10	5	5.00	5	79	7.9
Prma.-GREXPAN	2	2	5	2	2	5	5	5	9	9	46	4.6	5	5	10	5	7	8	10	10	15.00	15	90	9.0
Gen. Am. Sub-Total	23	27	41	29	34	22	37	37	41	34	325	32.5	45	38	63	37	38	24	55	58	67.00	48	473	47.3
Avg	4.60	5.40	8.20	5.80	6.80	4.40	7.40	7.40	8.20	6.80	65.00	6.5	9.00	7.60	12.60	7.40	7.60	4.80	11.00	11.60	13.40	9.60	94.60	9.5
CARIBBEAN																								
DR-JACC	9	5	5	5	9	5	9	9	9	5	70	7.0	4	2		1	1	5	10	10	25.00	1	59	6.6
EC-CFDC (Dominica)	0	9	2	5	2	0	0	2	5	2	27	2.7	0	1	1	1	1	0	0	1	2.00	1	8	0.8
EC-CATCO (Trinidad)	9	9	5	9	2	0	2	2	5	2	45	4.5	1					0	0	0	1.00	1	3	0.5
EC-CATCO (Grenada)	5	5	5	5	5	2	2	5	5	5	44	4.4	1	1	1	1	1	1	1	1	1.00	1	10	1.0
EC-ADCU	9	9	9	9	9	9	5	9	9	9	86	8.6	4	8	3	3	8	10	10	4	15.00	15	80	8.0
Grenada (M&NIB)	5	9	9	9	9	9	5	9	9	5	73	8.1	1	1	1	1	1	1	1	4	4.00	1	16	1.6
Grenada (PFU)	2	9	9	9	9	5	2	9	9	5	68	6.8	1	4	6	2	2						15	3.0
Jamaica-JADF	9	9	9	5	9	9	9	9	9	2	79	7.9	2	1	2	1	1	4	0	3	5.00	0	19	1.9
Carib'n Sub-Total	48	64	53	56	54	39	34	54	60	30	492	49.2	14	18	14	10	15	21	22	23	53.00	20	210	21.0
Avg	6.00	8.00	6.63	7.00	6.75	4.88	4.25	6.75	7.50	4.29	61.50	6.3	1.75	2.57	2.33	1.43	2.14	3.00	3.14	3.29	7.57	2.86	26.25	2.9
TOTAL	100	112	126	117	120	76	99	98	110	79	1037	103.7	65	60	99	59	70	46	90	87	125	75	776	77.6
AVG	6.0	6.2	7.6	6.9	7.2	4.3	6.2	5.3	6.0	4.9	60.5	6.1	4.1	3.7	6.8	3.9	4.7	2.8	5.8	5.6	7.5	4.9	48.0	5.0

0=None  
2=Low  
5=Medium  
9=High

No. Times Per Month

SEE ATTACHED QUESTIONNAIRE FOR THE NUMBERED INFORMATION PRODUCTS

Summary of Responses to the CBGA-Sponsored Survey of Key Horticultural Information Services

INFORMATION PRODUCT	#3: Already Collect & Compile This Information											#4: Degree of Dissemination of This Information												
	1	2	3	4	5	6	7	8	9	10	SUM	AVG	1	2	3	4	5	6	7	8	9	10	SUM	AVG
U.S. (Florida)																								
FFVA	2	0	9	9	9	0	0	0	0	9	38	3.8	2	2	9	9	9	2	0	0	0	2	35	3.5
A Duda & Sons	5	0	5	5	9	9	9	5	9	5	61	6.1	5	0	0	5	5	0	5	5	5	5	35	3.5
Chestnut Hill		5	9	5	2	5	5	2			33	4.7	2	5	2	2	2	0	0	2	2	2	19	1.9
J.R. Brooks	5	5	9	5	5	0	2	0	2	5	38	3.8	0	2	5	5	5	2	2	0	0	2	23	2.3
U.S. Sub-Total	12	10	32	24	25	14	16	7	11	19	170	17.0	9	9	16	21	21	4	7	7	7	11	112	11.2
Avg	4.00	2.50	8.00	6.00	6.25	3.50	4.00	1.75	3.67	6.33	42.50	4.6	2.25	2.25	4.00	5.25	5.25	1.00	1.75	1.75	1.75	2.75	28.00	2.8
CENTRAL AMERICA																								
Belize-BABCO	0	0	9	0	0	0	9	0	0	0	18	1.8	0	0	2	0	5	0	2	0	0	0	9	0.9
C.R.-CINDE/DIVAGRI	2	9	9	5	5	5	9	9	5	9	67	6.7	2	5	9	5	5	5	5	9	5	9	59	5.9
Guat.-GEXPRONT	9	5	9	9	9	5	9	9	9	5	78	7.8	5	5	9	9	9	9	9	9	9	9	82	8.2
Hond.-FPX	9	5	9	9	5	5	9	9	5	5	70	7.0	5	9	5	5	5	2	0	9	5	5	50	5.0
Prma.-GREXPAN	2	2	5	2	2	2	2	2	2	2	23	2.3	2	2	5	2	2	2	0	5	5	5	30	3.0
Cen. Am. Sub-Total	22	21	41	25	21	17	38	29	21	21	256	25.6	14	21	30	21	26	18	16	32	24	28	230	23.0
Avg	4.40	4.20	8.20	5.00	4.20	3.40	7.60	5.80	4.20	4.20	51.20	5.1	2.80	4.20	6.00	4.20	5.20	3.60	3.20	6.40	4.80	5.60	46.00	4.6
CARIBBEAN																								
DR-JACC	5	5	2	2	5	0	2	9	9	2	41	4.1	5	5	2	2	2	2	0	9	9	2	38	3.8
EC-CFDC (Dominica)	0	0	0	2	5	0	0	2	5	2	16	1.6	0	0	0	2	2	0	0	0	5	2	11	1.1
EC-CATCO (Trinidad)		5	2	5	5	0	2	5	5	5	34	3.8	2	2	2	0	0	0	2	2	5	2	17	1.7
EC-CATCO (Grenada)	5	5	5	5	5	2	2	5	5	5	44	4.4	5	5	5	5	5	2	0	5	5	5	42	4.2
EC-ADCU	9	9	9	9	9	9	5	5	9	5	78	7.8	9	9	9	9	9	5	9	9	9	5	82	8.2
Grenada (M&NIB)		5	5	5	5	5	0	0	0	0	24	2.4	5	5	5	5	5	2	0	2	2	0	31	3.1
Grenada (PFU)	2	5	5	2	5	5	0	0	0	0	24	2.4	2	5	5	2	2	0	0	2	2	0	20	2.0
Jamaica-JADF	5	5	9	7	5	9	0	5	9	0	54	5.4	5	5	9	5	5	9	0	5	9	5	57	5.7
Carib'n Sub-Total	26	34	32	32	39	25	11	31	42	19	291	29.1	33	36	37	30	30	20	11	34	46	21	298	29.8
Avg	4.33	4.86	4.57	4.57	5.57	3.57	1.57	4.43	6.00	2.71	41.57	4.2	4.13	4.50	4.63	3.75	3.75	2.50	1.38	4.25	5.75	2.63	37.25	3.7
TOTAL	60	65	105	81	85	56	65	67	74	59	717	71.7	56	66	83	72	77	42	34	73	77	60	640	64.0
AVG	4.2	3.9	6.9	5.2	5.3	3.5	4.4	4.0	4.6	4.4	45.1	4.6	3.1	3.7	4.9	4.4	4.7	2.4	2.1	4.1	4.1	3.7	37.1	3.7

0=Not at all  
2=Rarely  
5=Occasionally  
9=Systematically

0=Not at all  
2=Rarely  
5=Occasionally  
9=Systematically

Summary of Responses to the CBGA-Sponsored Survey of Key Horticultural Information Services

#5: Willingness to Collaborate with CBGA

#6: Priority CBGA Should Place on This Information

INFORMATION PRODUCT	#5: Willingness to Collaborate with CBGA												#6: Priority CBGA Should Place on This Information											
	1	2	3	4	5	6	7	8	9	10	SUM	AVG	1	2	3	4	5	6	7	8	9	10	SUM	AVG
U.S. (Florida)																								
FFVA	2	2	5	5	2	0	0	0	0	5	21	2.1	9	9	5	5	9	5	5	2	5	9	63	6.3
A Duda & Sons	2	2	2	2	2	2	2	2	2	2	20	2.0	5	5	5	9	9	2	5	9	5	5	59	5.9
Chestnut Hill	2	2	2	2	2	2	2	2	2	2	20	2.0	5	5	9	9	5	5	5	5	5	5	48	6.0
J.R. Brooks	5	5	5	5	5	5	5	5	5	5	50	5.0	9	9	5	5	9	2	2	0	2	5	48	4.8
U.S. Sub-Total	11	11	14	14	11	9	9	9	9	14	111	11.1	23	28	24	28	32	14	12	16	17	24	218	21.8
Avg	2.75	2.75	3.50	3.50	2.75	2.25	2.25	2.25	2.25	3.50	27.75	2.8	7.67	7.00	6.00	7.00	8.00	3.50	4.00	4.00	4.25	6.00	54.50	5.8
CENTRAL AMERICA																								
Belize-BABCO	5	5	5	5	5	5	9	5	5	5	54	5.4	2	5	5	5	5	5	9	9	5	2	52	5.2
C.R.-CINDE/DIVAGRI	5	9	9	9	9	5	5	2	5	9	67	6.7	5	9	9	9	9	5	5	2	5	5	63	6.3
Guat.-GEXPRONT	9	9	9	9	9	9	9	9	9	9	90	9.0	9	2	9	9	9	9	9	9	9	9	83	8.3
Hond.-FPX	9	9	9	5	9	5	9	9	5	9	78	7.8	9	9	9	5	5	5	9	9	5	9	74	7.4
Prma.-GREXPAN	5	5	5	2	5	5	5	9	9	9	59	5.9	5	5	5	5	5	5	9	9	9	9	66	6.6
Gen. Am. Sub-Total	33	37	37	30	37	29	37	34	33	41	348	34.8	30	30	37	33	33	29	41	38	33	34	338	33.8
Avg	6.60	7.40	7.40	6.00	7.40	5.80	7.40	6.80	6.60	8.20	69.60	7.0	6.00	6.00	7.40	6.60	6.60	5.80	8.20	7.60	6.60	6.80	67.60	6.8
CARIBBEAN																								
DR-JACC	9	9	9	9	9	9	5	9	9	5	82	8.2	9	9	5	5	5	5	9	9	5	5	66	6.6
EC-CFDC (Dominica)	9	9	9	9	9	5	9	9	9	9	86	8.6	2	9	8	8	8	2	9	9	9	5	69	6.9
EC-CATCO (Trinidad)	5	9	9	5	2	5	2	5	5	5	47	5.2	5	9	9	5	5	5	5	5	5	5	48	6.0
EC-CATCO (Grenada)	5	5	5	5	5	2	5	5	5	5	47	4.7	5	5	5	5	5	2	5	5	5	5	47	4.7
EC-ADCU	9	9	9	9	9	9	5	9	5	5	82	8.2	9	9	9	9	9	9	9	5	9	9	86	8.6
Grenada (M&NIB)	5	9	9	9	9	9	5	9	5	5	78	7.8	5	9	9	9	9	9	9	5	9	9	86	8.6
Grenada (PFU)	5	9	9	9	9	5	5	5	9	2	67	6.7	5	9	9	5	5	9	5	9	9	5	70	7.0
Jamaica-JADF	9	9	9	9	9	9	9	9	9	5	86	8.6	9	9	9	9	9	5	5	9	9	5	71	7.1
Carib'n Sub-Total	56	68	68	64	59	50	56	49	64	41	575	57.5	44	59	54	46	41	37	38	51	51	36	457	45.7
Avg	7.00	8.50	8.50	8.00	8.43	6.25	7.00	6.13	8.00	5.13	71.88	7.3	6.29	8.43	7.71	6.57	6.83	5.29	6.33	7.29	7.29	5.14	65.29	6.7
TOTAL	100	116	119	108	107	88	102	92	106	96	1034	103.4	97	117	115	107	106	80	91	105	101	94	1013	101.3
AVG	5.5	6.2	6.5	5.8	6.2	4.8	5.6	5.1	5.6	5.6	56.4	5.7	6.7	7.1	7.0	6.7	7.1	4.9	6.2	6.3	6.0	6.0	62.5	6.4

0=None  
2=Low  
5=Medium  
9=High

0=None  
2=Low  
5=Medium  
9=High

**ANNEX D**

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**EXAMPLE OF A PROPOSED IMPLEMENTATION PLAN  
FOR A MARKET INFORMATION SYSTEM**

**PROPOSED IMPLEMENTATION PLAN FOR THE MARKET INFORMATION SYSTEM**  
(By Client Group and Phase)

PHASE: PHASE-III PERIOD:	PHASE I Months 1-3	PHASE II Months 4-6	PHASE III Months 7-12
	DATASETS	DATASETS	DATASETS
<b>TARGET AUDIENCE:</b>			
<b>A. PRIMARY CLIENTS</b>			
- Exporters - Farmer Groups	<ol style="list-style-type: none"> <li>1. Exporting Procedures (OECS countries)</li> <li>2. Importing Procedures (European Mkts)</li> <li>3. Current Admissibilities (Eur., U.S., Canada)</li> <li>4. Pesticide Regulations (European Mkts)</li> <li>5. Official Grades &amp; Stds. (Europe)</li> <li>6. Commercial Grades &amp; Stds. (Europe)</li> <li>7. Reliable Importers (Europe)</li> <li>8. Historical Prices (Europe)</li> <li>9. Packing and Packaging (Europe)</li> <li>10. Competing Supply Areas (Europe)</li> <li>11. Current Wholesale Prices (Europe)</li> <li>12. Historical Import Volumes (Europe)</li> <li>13. Crop Calendar (OECS Countries)</li> <li>14. Transport Services Matrix (sea, land, air)</li> <li>15. Basic Production Info for Target Crops</li> <li>16. Basic Post-harvest Info for Target Crops</li> </ol>	<ol style="list-style-type: none"> <li>1. Planting Intentions (by Crop, Area)</li> <li>2. Importing Procedures (Canada)</li> <li>3. Possible Changes in Admissibilities</li> <li>4. Pesticide Regulations (Canada)</li> <li>5. Official Grades &amp; Stds. (Canada)</li> <li>6. Commercial Grades &amp; Stds. (Canada)</li> <li>7. Reliable Importers (Canada)</li> <li>8. Historical Prices (Canada)</li> <li>9. Packing and Packaging (Canada)</li> <li>10. Competing Supply Areas (for Canada)</li> <li>11. Current Wholesale Prices (Canada)</li> <li>12. Historical Import Volumes (Canada)</li> <li>13. Seasonality of Competing Supply</li> <li>14. Possible Changes in Transport Service</li> <li>15. Core Technology Packages (by Crop)</li> </ol>	<ol style="list-style-type: none"> <li>1. Projections of Exportable Supply (OECS)</li> <li>2. Importing Procedures (U.S.)</li> <li>3. Pesticide Regulations (U.S.)</li> <li>4. Official Grades &amp; Stds. (U.S.)</li> <li>5. Commercial Grades &amp; Stds. (U.S.)</li> <li>6. Reliable Importers (U.S.)</li> <li>7. Historical Prices (U.S.)</li> <li>8. Packing and Packaging (U.S.)</li> <li>9. Competing Supply Areas (U.S.)</li> <li>10. Current Wholesale Prices (U.S.)</li> <li>11. Historical Import Volumes (U.S.)</li> <li>12. Competitors' Transport Costs in Target Mkts.</li> <li>13. Emerging Technologies (Cross-cutting)</li> </ol>
<b>B. PROJECT PARTICIPANTS</b>			
- OECS/ADCU Staff - CARDI Staff - Contractor Team	<ol style="list-style-type: none"> <li>1. Exporter List (OECS Countries)</li> <li>2. Trade Statistics (Europe)</li> <li>3. Information on Industry Assocs. Abroad</li> <li>4. Trade Fair Calendar (Europe, U.S., Canada)</li> </ol>	<ol style="list-style-type: none"> <li>1. Exporter Profiles (OECS Countries)</li> <li>2. Prequalified Importers (Europe)</li> </ol>	<ol style="list-style-type: none"> <li>1. Declared Volume &amp; Value of OECS Exports</li> <li>2. Profiles of Prequalified Importers (Europe)</li> <li>3. Prequalified Importers (U.S., Canada)</li> </ol>
<b>C. SECONDARY CLIENTS</b>			
- Importers (i.e. Receivers) - Individual Growers	<ol style="list-style-type: none"> <li>1. Packing &amp; Packaging Facilities (OECS)</li> <li>2. Principal Varieties in Use</li> <li>3. Approximate yields for current crops</li> </ol>	<ol style="list-style-type: none"> <li>1. Promising Alternate Varieties</li> <li>2. Sources of Cultivars</li> <li>3. Likely yields for promising new crops</li> </ol>	
<b>D. COUNTERPARTS</b>			
- USAID - Agr. Research Orgs./Staff - Agr. Extension Orgs./Staff - Investment Promo. Orgs. - Local Dev. Agencies - Other International Donors	<ol style="list-style-type: none"> <li>1. Land Use and Capabilities (OECS)</li> <li>2. Economic Indicators (OECS Countries)</li> </ol>	<ol style="list-style-type: none"> <li>1. Macroeconomic Policies/Constraints</li> <li>2. Constraints in the Business, Legal or Regulatory Environment</li> </ol>	<ol style="list-style-type: none"> <li>1. Typical Costs of Production (by crop)</li> </ol>

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**E. INPUT/SERVICE PROVIDERS**

- Transport Providers
- Financing Organizations
- Agricultural Input Suppliers
- Agr. Equipment Suppliers

1. Anticipated Export Volumes by Week
2. Port Facilities (OECS countries)

1. Impending Changes in Pesticide Laws

**F. OBSERVERS/ANALYSTS:**

- Media Analysts/Reporters
- Embassies/High Commissions
- Foreign Trade Promo. Orgs.
- Foreign Industry Associations
- University Researchers
- Students

1. Major Events in the Industry
2. Major Accomplishments in the Industry

ANALYSIS OF THE APPARENT DEMAND FOR MKIS SERVICES  
(BY CLIENT TYPE AND CONTENT OF REQUEST)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TRENDS IN WORLD MKTS	TRENDS IN TARGET MKTS	MARKET REQUIREMENTS	CURRENT MARKET SITUATION	ACCESS TO MARKET	CURRENT SUPPLY SITUATION	PRODUCTION INTENTIONS	SUPPLY TRENDS

PROJECT PARTICIPANTS:

1. OECS/ACDU Staff	frequent	frequent	frequent	frequent	frequent	frequent	frequent	frequent
2. CARDI Staff	occasional	rare	occasional	frequent	rare	occasional	rare	rare
3. Contractor Team	frequent	frequent	occasional	frequent	frequent	frequent	occasional	occasional

DIRECT CLIENTS: (i.e. economic actors)

1. Individual Growers	occasional	occasional	occasional	occasional	occasional	rare	rare	rare
2. Farmer Groups	frequent	frequent	frequent	frequent	occasional	occasional	occasional	occasional
3. Exporters (i.e. Shippers)	frequent	occasional	frequent	frequent	frequent	occasional	frequent	occasional
4. Importers (i.e. Receivers)	occasional	rare	rare	occasional	rare	rare	rare	occasional

INPUT/SERVICE PROVIDERS

1. Transport Providers	occasional	rare	rare	occasional	rare	rare	rare	rare
2. Financing Organizations	occasional	rare	occasional	occasional	rare	rare	rare	rare
3. Input Suppliers	rare	rare	rare	rare	rare	rare	rare	rare
4. Equipment Suppliers	rare	rare	rare	rare	rare	rare	rare	rare

COUNTERPARTS: (i.e. development entities)

1. Agricultural Research Orgs./Staff	frequent	frequent	frequent	frequent	rare	rare	rare	occasional
2. Agricultural Extension Orgs./Staff	rare	rare	rare	rare	rare	rare	rare	rare
3. Investment Promotion Orgs./Staff	occasional	occasional	occasional	rare	occasional	rare	rare	rare
4. Local Development Agencies	occasional	occasional	occasional	rare	occasional	rare	rare	occasional
5. USAID	frequent	frequent	occasional	rare	rare	rare	rare	occasional
6. Other Internat'l Donors	occasional	occasional	rare	rare	rare	rare	rare	occasional

OUTSIDE OBSERVERS/ANALYSTS:

1. University Researchers/Students	occasional	occasional	rare	rare	rare	rare	rare	rare
2. Media Analysts/Reporters	occasional	occasional	occasional	occasional	rare	rare	rare	rare
3. Foreign Industry Associations	occasional	occasional	occasional	occasional	rare	rare	rare	rare
4. Foreign Trade Promotion Orgs.	occasional	occasional	frequent	occasional	rare	occasional	rare	occasional
5. Embassies/High Commission Staff	frequent	occasional	frequent	occasional	rare	occasional	rare	occasional

NOTES:

- (1) Includes: consumption patterns for edible & ornamental hort crops; sources of supply; mktg & distribution systems; historical prices
- (2) Includes: consumption patterns for edible & ornamental hort crops; sources of supply; mktg & distribution systems; historical prices
- (3) Includes: prevalent grades & stds; preferred varieties; packing & packaging; phytosanitary & pesticide regulations; trade practices
- (4) Includes: volumes arriving by source; quality & condition of outturns; FOB POE prices obtained; phytosanitary & pesticide interceptic
- (5) Includes: import procedures; customs duties; non-tariff barriers; transport service; preferred & bad receivers; terms of sale
- (6) Includes: current and projected volumes by crop, source area & destination; transport mode; designated receivers; production problems
- (7) Includes: planting intentions by crop, production area, and timing; principal varieties; target markets; probable receivers
- (8) Includes: historical data on area planted by crop; seasonality of supply by crop & variety; exportable yields; farm-gate prices & ret

**ANNEX E**

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**BIBLIOGRAPHY**

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**ANNEX E**  
**BIBLIOGRAPHY**

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