In a nutshell

Organic Agriculture

"Closing the Information Gap"

December 2001
Inter-American Institute for Cooperation on Agriculture

This series is specifically designed to provide a simplified synopsis for persons who need a quick reference guide on issues of relevance to Caribbean agriculture in an increasingly dynamic market.

This issue highlights organic agriculture, which is gaining the attention of farmers, producers and consumers in both developed and developing countries. The booklet is not a manual or guide for starting an organic farm but rather, provides information on the issues that drive the organic agriculture industry.

To learn more about organic farming, readers are encouraged to:
EITHER . . . register for:
the IICA Distance Learning course on "Organic Farming for Entrepreneurs"

OR . . . contact:
- The IICA Caribbean Regional Centre;
- The Caribbean Agricultural Research and Development Institute (CARDI);
- Jamaica Organic Agriculture Movement (JOAM);
- Organic Growers and Buyers Association of Barbados;
- Trinidad and Tobago Organic Agriculture Movement. (TTOAM)

OR. . . . log on to:
- www.ifas.efl.edu
- www.ams.usda.gov
- www.soilassociation.org
- www.cog.ca

SO, . . . if you are
. . . an ag[redacted]cientist/technician . . .
a produce[redacted]/distributor . . . a student,
. . . . or sir[redacted]. . . then read on!.

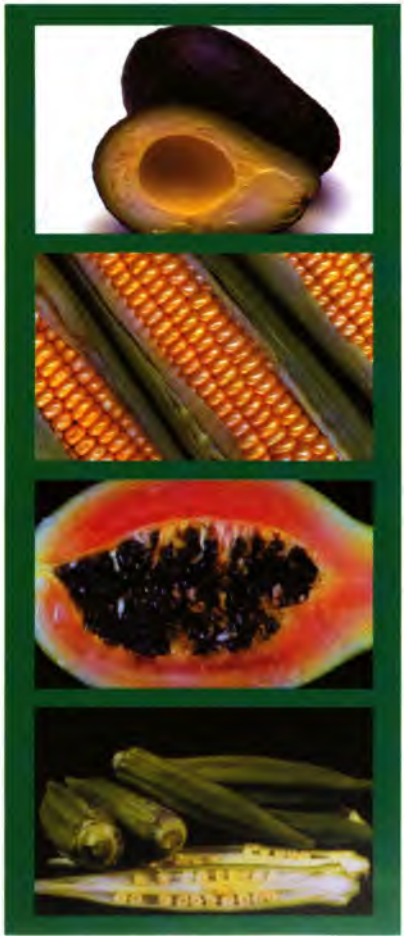
1. Organic Farming:
. . . some facts and figures

Organic farming is a sustainable farming system using techniques that maintain the natural balance of the eco-system, replenish and rejuvenate soils, conserve the environment and produce healthier, safer foods.

While for centuries, farmers have recycled plant and animal wastes into the soil to improve it, modern day organic farming is subject to strict regulations, supported by on-going scientific research.

The world organic foods market is small but has been growing by 20% a year in the US and Canada and 40% in Europe due to consumer concerns about health and food safety, environmental conservation, farm labour and animal welfare conditions.

World organic food sales are projected to increase, from 1% to 10% of all food sales as consumers expect organic foods to be safer; higher in quality and nutritional content; and better in aroma and taste.



ALTHOUGH ORGANIC FARMERS USE NO ARTIFICIAL CHEMICALS, THIS DOES NOT GUARANTEE THAT ORGANIC FOODS ARE COMPLETELY FREE OF CHEMICAL OR OTHER HARMFUL RESIDUES DUE TO WIDESPREAD CONTAMINATION OF OUR WATER AND SOILS.

2. Best Organic Farming Techniques

✓Soil Fertility - Feed the soil and the soil will feed the crop!

Use of raw manure is not recommended and manure containing sewage sludge and septic waste is generally prohibited

An on-going soil improvement programme is critical to maintain a fertile soil, good yields and healthy crops.

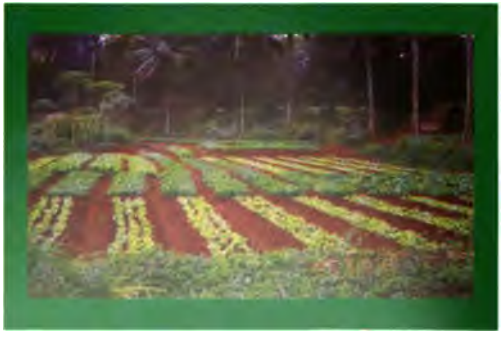
Natural "soil foods" are:

✓ Organic fertilisers of biological origin, including:
- manure and compost,
- dried plant and animal parts,
- bio-fertilisers and green manure crops.

✓ Naturally mined minerals, including:
- potassium sulphate and powdered granite;

✓Crop Diversity - Grow a mix of crops to keep the soil biologically balanced!

Crop rotation, inter-cropping and multi-cropping are critical to introduce bio-diversity, maintain soil fertility, control pests, diseases and weeds, and reduce nutrient loss. They can also spread risks and enhance returns from the organic enterprise.



✓Crop Protection - natural control of weeds, pests, diseases!

Natural crop protection is achieved by a mix of :

cultural controls, such as: crop rotation, proper choice of species and varieties, high level of field sanitation and repellent crops (garlic, neem, turmeric, basil).

mechanical controls, such as: traps, physical barriers (row covers);

biological controls, such as: natural predators and parasites, maintaining habitats conducive to beneficial organisms, and using sterile males.

chemical controls, such as:
allowed materials, such as, botanical pesticides (neem, ryania), compatible synthetics, lime-sulphur, insecticidal soaps and oils.

As with conventional farming, even the best integrated pest and disease management practices cannot always prevent crop loss.

✓Post Harvest - maintaining the integrity of organic foods.

- All post harvest techniques, such as, natural field drying, storage temperature control, mode of transportation and methods to reduce spoilage must be in accordance with stated standards;
- Organic food handlers, processors, wholesalers and retailers must adhere to standards to maintain the integrity of organic agricultural products.

3. Standards -
. . . the basis for organic certification!

The ability to market products as organic depends on whether or not the farmers/processors meet the requirements of national and international organic standards.

Organic Standards are set by:

International Federation of Organic Movements (IFOAM), which sets international non-governmental standards which provide guidelines for certification agencies to develop their own standards;

Codex Alimentarius of the Food and Agriculture Organisation, which sets international standards that many governments use as guidelines for harmonising their national standards;

Individual Countries, which establish national standards for domestic producers as well as imported organic products, such as;

- the EU's minimum organic standards
- the US's National Organic Programme (NOP)
- Canada's National Standard of Canada for Organic Agriculture

These standards define the minimum practices and requirements for a food product to be labeled and sold as 'organic'. Inspite of differences among countries and certification agencies, all organic standards specify:

- a MATERIALS LIST of "allowed", "regulated" and "prohibited" inputs. All inputs, methods and ingredients used in organic farming and to process organic foods are highly regulated. Certified farmers, food handlers and processors must consult the certification agency's Materials List.

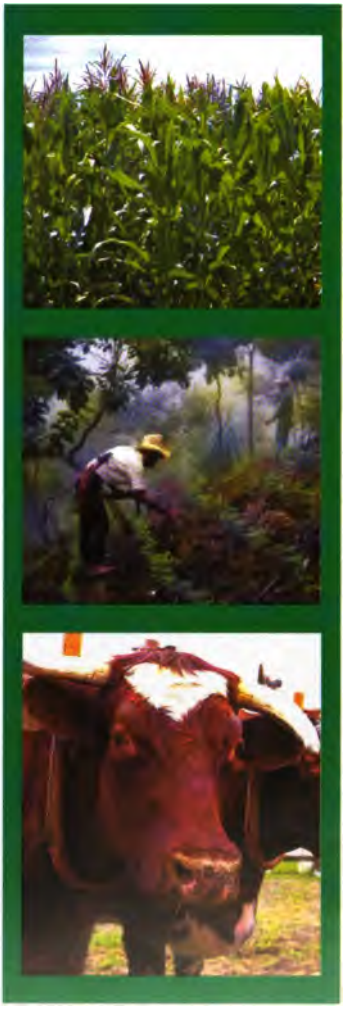
- SEPARATION of organic and non-organic products and by-products throughout harvesting, transportation, processing and packaging to prevent mixing and contamination from conventional products.
- DETAILED RECORDS of crop history and inputs; livestock source, feeds and medications; production; harvest and storage and sales; and processing aids and inputs to enable an audit trail to track the finished product back to the production unit.

Standards for CROPS require:

- a minimum of 2 or 3 years to convert non-organic to organic;
- that all inputs used must be "approved" on the Materials List;
- separation zones between organic and non-organic farms;
- use of only untreated and non-genetically engineered seeds;
- a minimum of 12 months of organic care before the first harvest;

Standards for LIVESTOCK:

- require a health and nutritional management system to reduce stress and prevent disease;.
- require animals for slaughter as organic meat be fed 100% organic feeds;
- require transition programme for first time certification of new herds/animals;
- strictly regulate the use of pest and disease control treatments. The use of hormones and/or growth promotors is prohibited. Vaccinations required by state law are allowed. (animals requiring conventional treatments must be tagged and sold as non-organic meat).



Different rules and higher standards apply for the production of slaughter animals versus animals for milk, egg, and reproduction.

Before Goi

"Plan the Work - - ar

1. Where to Farm?

This choice is important to satisfy the "eligibility criteria" and should consider:

- Previous use and proximity to non-organic farms;
- Condition of the soil and surroundings;
- Local environment and ecological conditions;
- Knowledge of likely pest and disease problems;
- Reliable water supply of acceptable quality;

2. Infrastructure

For organic farming, special physical structures to support its activities may include:

- Covered structures for preparing manure;
- Animal shelter, plant nurseries;
- Storage packing facilities for farm processing;
- Access roads, electricity and communication;

3. What Product; What Market?

Organic farming should be market-led based on:

- Product requirements, quality characteristics and seasons;
- Market characteristics & requirements; if export market then select a Certifying Agency and follow its organic product standards;
- Market sampling and testing

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4. What Size Farm?

In determining the farm size, always remember this decision should be informed by:

- Current resources and access to resources;
- Current supply conditions and competitors;
- Minimum requirements for profitability, using the various cost elements identified.

5. Labour

Labour to establish and maintain an organic farm can be considerable and costly. One must:

- Identify each activity, labour and labour costs - REMEMBER to cost your own labour and time;
- Consider the level of skills and training required;
- Explore available and appropriate mechanised tools and equipment to reduce costs.

6. Production Inputs

Correctly determining points 1 to 5 will assist in:

- Identifying the type of inputs and services required, when and where they are available;
- Identifying how much of each input is required and how often during the production cycle;
- Developing and managing a production budget.

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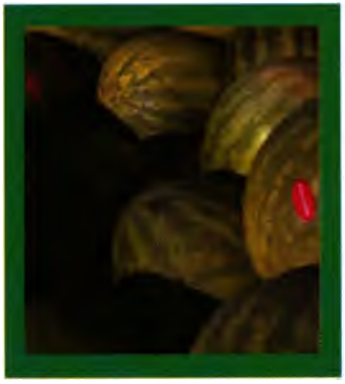
Standards for PROCESSING AND HANDLING:

- specify the types of non-organic ingredients and processing aids that are allowed;
- require that the production process methods are known;
- require operations to incorporate an Organic Control Points (OCP) system to maintain the organic integrity.

Standards for LABELLING:

- define the percentage of organic ingredients which must be in the final product to be labelled as 'organic'. In the US labels of:



- "100% organic" must contain only organically produced ingredients;
- "organic" on the front label, must contain at least 95% organically produced ingredients (excluding salt and water); and
- "made with organic ingredients" must contain at least 50% organic ingredients, clearly listing three of these ingredients.

Under IFOAM, EU and Codex Standards, labels stating "made with organic ingredients" must contain at least 70% organic ingredients, clearly listing three of these ingredients.

Satisfying organic standards is important to:

- ✓ maintain consumer confidence and trust;
- ✓ provide producers with clear guidelines on managing organic production systems;
- ✓ facilitate trade and marketing of organic foods.

4. Certification:
. . . the seal of approval

Why Certify? Because it. . .

- entitles a producer and enterprise to legally label products 'organic' and to use the organic symbol;
- assures consumer confidence in "organic" foods;
- enhances trade and the integrity of the organic foods industry.

Who Certifies?

- An independent Certifying Agent or Certification Agency (CA), which may either be a state, private and foreign organisation or an individual, accredited under a national and/or international accreditation system. The more recognised CAs are members of IFOAM. Each CA may apply higher standards than the IFOAM, CODEX or their own national standards.

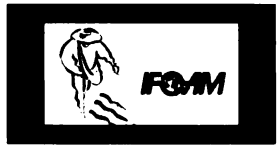
What is the Certification Process?

A producer/food processor must:

- Practice the principles of organic farming.
- Identify a suitable Organic Certifying Agency, register the farm and pay the necessary application fees;
- allow Inspection of the operation and all records, conducted by an independent CA-approved inspector,

If all requirements are satisfied, then an Organic Certificate is granted which permits the user to use the organic seal or symbol of the Certifying Agency to market a specified volume of product or product mix for a specified time. Certificates must be renewed every year to ensure that the producer maintains the integrity of the organic product.

How many types of farm Certification are there?



- Whole-Farm Certification –entire farm operations are organic;

- Field-by-Field Certification – individual fields in a particular farming system are converted before others. It is used mostly in transition systems where field-by-field conversion is allowed. There is a time limit for the entire farm to be converted and the farmer has to provide the plan of incremental conversion. Not all Certifying Agencies recognise this type of certification.

- Parallel Production – some agencies allow the certification of organic fields on a farm that also practices non-organic production. The entire farm, including the records for both systems, is subject to inspection. The same variety of crops cannot be grown in both systems at the same time.

- Community Grower Group certification – a group of small organic farmers can be certified as an organic producer group provided that they:
  - farm within close proximity to each other;
  - grow similar crops using identical farming practices;
  - sell the organic produce as a group;
  - use one collective system of control and record keeping; and
  - comply with a chosen Certifying Agency's standards.

NOTE: foods produced and processed in traditional ways by indigenous and/or traditional groups can be certified as organic under the community grower group, provided that:

- the sites are subject to normal annual inspection,
- production and/or processing methods are in accordance with approved standards.

5. Organic Agriculture and Caribbean farming - . . . food for thought!

Given its popularity, should the Caribbean encourage its farmers to fully replace conventional agriculture with organic farming?

NO!

For any country, all organic is not an option! Conventional food production will continue to be an important source of food supplies. Also, because of where their land is located, many Caribbean farmers may be automatically disqualified from selling their product as organic. There is, however, a window of opportunity for Caribbean farmers.

Many Caribbean farmers have traditionally practiced some form of organic agriculture. Can they easily qualify as organic farmers?

NO!

Organic farming is based on very specific principles and management practices, The standards themselves are relatively new and still developing and Caribbean farmers are only now being informed about them. ALL farmers must meet these standards and go through the inspection process to be certified as organic.

Does the Caribbean have any advantages that make organic agriculture a viable option for some farmers?

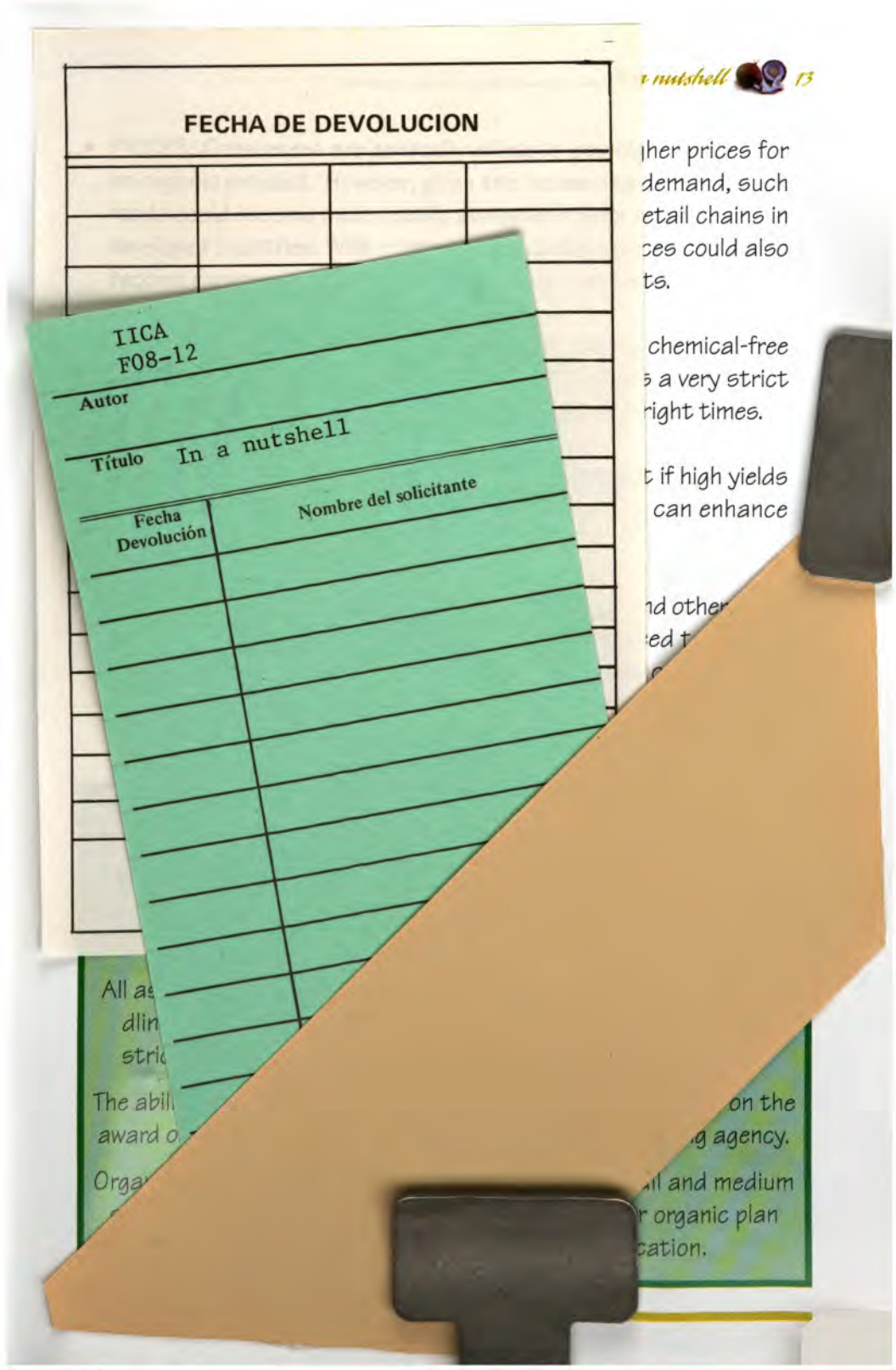
YES!

The ability to produce most fruits and vegetables year round is an advantage that Caribbean farmers can exploit. In addition, many of the more popular organic foods are produced in tropical countries, such as, organically grown cocoa, coffee, bananas, tropical fruit and vegetables. Other organic foods with growth potential are honey, baby foods, fruit juices, jams and jellies, vegetable sauces, dairy products and eggs.

HOWEVER. . . There are some important issues, which based on how they are addressed, could either make or break the success of an organic enterprise.

- MARKET INFORMATION - An organic enterprise must be market-led. Market information is critical to assess the rate and pattern of growth of the organic market and to determine how prices will move when the organic product/products are ready to enter the market and what products are in demand.

- MARKETING: First-time organic producers and processors should target niche markets, establish their distribution and marketing channels, select a product or mix of products familiar to the consumer and test the market before starting full scale production. Marketing of 'all-organic veggie' or 'all-organic fruit' packs can enhance success.



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Issue # 6, December 2001
ISSN-0245-4746
A2/TT/05/01

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Production
Morton Publishing

Printed by
CPPPL (1993) Ltd.

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