ISHS

Horticulture Economic Newsletter 2001 – 04

January 2001

Nico de Groot
Chairman of the Commission of Economics and Management
Agricultural Economics Research Institute (LEI)
Burgemeester Patijnlaan 19
P.O. Box 29703
NL-2502 LS The Hague
The Netherlands
Tel.: +31 70 335 82 52
Fax: +31 70 335 81 99
e-mail: n.s.p.degroot@lei.wag-ur.nl

Content

U.S. Fresh Fruit and Vegetable Marketing: Emerging Trade Practices, Trends, and Issues

By Linda Calvin and Roberta Cook (coordinators); Mark Denbaly, Carolyn Dimitri, Lewrene Glaser, Charles Handy, Mark Jekanowski, Phil Kaufman, Barry Krissoff, Gary Thompson, and Suzanne Thornsbury. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 795.
E-mail: cook@primal.ucdavis.edu

Abstract
In the past year, trade practices between fresh produce shippers and food retailers gained national attention. Shippers are concerned that recent retail consolidation has led to market power and the growing incidence of fees and services. Retailers argue that these new trade practices reflect their costs of doing business and the demands of consumers. Trade practices include fees such as volume discounts and slotting fees, as well as services like automatic inventory replenishment, special packaging, and requirements for third-party food safety certification. Trade practices also refer to the overall structure of a transaction - for example, long-term relationships or contracts versus daily sales with no continuing commitment. This study compares trade practices in 1999 with those prevalent in 1994, placing them in the broader context of the evolving shipper/retailer relationship. Most shippers and retailers reported that the incidence and magnitude of fees and services associated with transactions has increased over the last 5 years. Fees paid to retailers are usually around 1-2 percent of sales for most of the commodities we examined, but 1-8 percent for bagged salads. Information on the incidence and magnitude of these new practices is scarce. To augment information that is publicly available, we interviewed a limited number of shippers, retailers, and wholesalers about their firms and trade practices. We received a high level of voluntary cooperation from the interviewed firms.

Keywords: Produce, fresh fruit and vegetables, fresh-cut produce, trade practices, fees and services, slotting fees, retail consolidation, produce shipper consolidation.

Note: Use of brand or firm names in this publication does not imply endorsement by the U.S. Department of Agriculture.

Author affiliation: Linda Calvin, Carolyn Dimitri, Lewrene Glaser, and Barry Krissoff are with the Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture; Mark Denbaly, Charles Handy, and Phil Kaufman are with the Food and Rural Economics Division, ERS, USDA; Roberta Cook is with the University of California at Davis; Mark Jekanowski, formerly with the Food and Rural Economics Division, ERS, is now with Sparks Compa-nies, Inc.; Gary Thompson is with the University of Arizona; and Suzanne Thorns-bury is with the University of Florida. The views presented here do not necessarily reflect those of Sparks Companies, Inc.

1800 M Street, NW
Washington, DC 20036-5831
January 2001

Greenhouse horticulture in Almería (Spain): results and conclusions of a study tour

J. Miguel Costa (Phd Student) E-mail: Miguel.Costa@HPC.DPW.WAU.NL

A group of Phd students from the Wageningen University (Horticulture Production Chains Group) had the opportunity to visit Almería, the largest plastic greenhouse concentration in the world (about 40.000 ha!) located in south-east Spain. In Almería, greenhouse horticulture is the main economic activity with a production value of about 1.2 billion Euros. Products are sold through auctions and co-operatives. Most producers are family companies of about 1-1.5 ha. Greenhouses are almost all unheated (no energy costs, no CO_2 enrichment), symmetric and covered with polyethylene on a small roof slope. Cultivation is mostly (90%) in an artificial sandy soil ('enarenado') what implies losses of large amounts of water and nutrients in this free-drainage system.

In Almería, the use of biocides per kg of tomato was estimated to be 7 to 11 times higher than in the Netherlands. However, energy demand is 10 to 17 times lower (Verhaegh, 1996). *Botrytis cinerea*, white fly (virus vector) and thrips are the main crop protection problems. Water use is about 1 m^3 per m^2 greenhouse and 4-5 times higher than annual rainfall. The additional water comes from 150-600 m deep wells (partly fossil water) and from the mountains. Water has high salinity, especially in the new-developed greenhouse area Níjar. Desalinisation of water from the Mediterranean Sea may be a solution for the water problem, although expensive. Labor costs are low, as is labor productivity, compared to the Netherlands. At present, insufficient labor is available. Migrants, some illegal, from Africa, Central and South America or Eastern Europe, are filling this gap. The activities of research stations in the region seemed negatively influenced by the limited contacts with growers. The University of Almería focuses mainly on teaching and limited funds are available for research. English can be also a barrier for contacts with other institutes abroad. There are only three large consultancy groups in Almería: considering the high number of growers and the great need for knowledge, this is insufficient.

In conclusion, the higher light levels and temperatures in winter compared to the Netherlands, the low energy use, the low production costs and the family companies are the strong points of the Almería greenhouse district. Weak points are the high biocide use and the small size of the grower companies (hard to co-ordinate). Furthermore, the marketing is too much cut into bits and often not done by professionals. Threats are future water shortage, the already observed labor shortage, which is expected to increase and a market that gives more and more attention to the environmental aspects of production. Necessary changes will involve high investments. High salinity of the water limits the possibilities for recirculation. In the future, Morocco and Turkey may develop to strong competitors of Almería. The change to

the new generation of growers, better educated and less conservative, and the many international contacts form opportunities for the Almería greenhouse district.
More details on production and marketing of greenhouse products (mainly vegetables) and status of research and consultancy are provided in a report entitled 'Greenhouse horticulture in Almería (Spain): report on a study tour 24-29 January 2000', ISBN 90-6754-593-7. You may order it to the following address:

Horticultural Production Chains Group
Marijkeweg 22
6708 PG Wageningen
The Netherlands
Fax. + 31 317 484709
E-mail: miguel costa @users.tbpt.wau.nl

Workshops Change Supermarket Operations

E-mail: sprussia@griffin.peachnet.edu

A series of four workshops developed at the University of Georgia have helped a supermarket chain reduce losses in their perishable products departments. In 1998, U.S. consumers bought more than $137 billion worth of fresh produce, meats, dairy products, bakery foods, and other perishable products. Product quality and availability largely determines what price shoppers will pay and the amount of the product they buy.
Recognizing the importance of perishable product quality, a major supermarket chain with more than 150 stores in Georgia recently established a new position called 'perishables coordinator', with each coordinator assigned 20 to 25 stores. Some zones reduced store losses and improved the quality of perishable products better than others. Managers approached faculty at The University of Georgia, College of Agricultural and Environmental Sciences with a request for a systematic approach to identify problems and recommend changes.
Faculty developed a series of four workshops for the coordinators. The first workshop lasted two days and helped coordinators learn basic concepts of a systems approach (Soft Systems Methodology) for planning and solving problems. They continued to learn between monthly workshops by completing projects selected at the previous workshop. Coordinators began weekly meetings by telephone to share information and resolve common problems as well as to develop written descriptions and diagrams describing common roles and activities.
The changes in operating procedures (such as computer-assisted bakery planning) led to increased retail sales and reduced losses. Fewer perishable products are going to landfills, and reduced losses benefit all in the food chain from farmers to consumers.

Stanley E. Prussia, Ph.D., P.E.
770-228-7217
sprussia@griffin.peachnet.edu
http://www.griffin.peachnet.edu/ageng/

Summary
of the papers presented in the conference
'business opportunity in floriculture industry'
at the 'international flora show 2000'

Jakarta, November 1st 2000

E-mail: srs@cbn.net.id

On the occasion of the International Flora Show 2000, Indonesia Flower Association (ASBINDO)[1], has been assigned by Nusantara Flower Foundation[2] to organize this International Conference. Indonesia take every opportunity offered in this Conference to study and explore the various aspects of the topics presented, with a desire to promote the Indonesia Floriculture as an integral part of the International Floriculture Society.
Indonesia has been in deep crisis for almost three years now. The Rupiah depreciation of more than 60 percent, the doubling of the un-

[1] Advisor – Ms Rini Soerojo
[2] Chairperson – Ms Rini Soerojo

employment rate to 13.6 percent, and the run-away inflation of 80 percent, resulted in economic contraction of almost 15 percent during 1998. Although the crisis reduced overall growth rates, the agricultural sector (including floriculture) declined less than other sectors such as industrial, trade, services etc. At the peak of the crisis in 1998, agricultural output increased, whereas the other sectors contracted severely. The agricultural sector generated almost five million new jobs, without any support from the banking sector.

Advice and suggestion delivered by *Prof Dr Emil Salim*[3] - as a guest speaker - it is a must to '*develop the island of economic resiliency an imaginary island of being the exporter of floriculture'*. The reasons are: unique product resource base, export orientation, developing and encouraging the growth of small and medium enterprise, decentralization of activities and an ample opportunity for technology improvement to lower the cost of production and at the same time to achieve standard quality of product to meet market acceptance requirement. And also *strengthen the cooperation among entrepreneurs in floriculture society.*

Dr Dedy Darnaedi, Director of Botanical Gardens, Indonesian Institute of Sciences delivered a paper with the topic *'Improved Indonesian Ornamental Species for the International Market'* elaborate that Indonesia is well known as the world's *mega-biodiversity* site as well as one of twelve *vavilov* main centers of plant diversity. Its flowering plant species represent 11% of the world species (about 25,000 species).

- Indonesia owns 5000 of the total 25,000 orchid species in the world. The main genera of orchid found in Indonesia are Dendrobium, Bulbophyllum, Phallaeonopsis, Eria and Coelogyne.
- There are 2800 species of palm from about 215 genera in the world; and Indonesia has about 460 species from about 35 genera. Nevertheless, we still need to work hard to innovate a few strong species suitable for outdoor and indoor use.
- Indonesia has about 50 species of Nepenthes out of 82 species found in the world. This species is good for hanging pot plants.

A lot of varieties need to be introduced to the floriculture Society, nevertheless, due to lack of commercial information demanded by its research station, Indonesia is lagging far behind other developing countries (Singapore, Thailand, Malaysia) in producing new varieties which meet the market-demand.

Another topic to be presented, that is *A Strategy to Develop Agribusiness Industry - The Thailand Success Story* - by Ms *Puengpit Dulyapach, Director of North-Eastern Regional Office DOAE of MOAC, Thailand*. In order to maintain the growth rate in the agricultural sector; to increase the capability in expert competitiveness of agricultural products to foreign markets; to accelerate domestic production for import substitution; to create jobs in rural areas to absorb unemployed works and to prepare for global climate change. The Ministry of Agriculture and Cooperative (MOAC) has adjusted its action plan for implementation in the last period of the 8th National Economic and Social Development Plan to include the followings; (1) *restructuring of the agricultural sector* (2) increasing in production efficiency and reduction of production costs (3) improvement of product quality and processing (4) *restructuring of the MOAC* (5) *promotion of rural savings* (6) management of chemical fertilizers and agricultural chemical (7) management of forest, soil, water, coastal areas, and biological resources (8) *preparation for global climate change* (9) preparation for the 21st century. With regards to the adjustment of MOAC'S role and functions, the Department of Agriculture and Extension *(DOAE)* has therefore been commissioned to be a *core agency to transfer agricultural technology and to provide agricultural information service to farmers on a basis of one stop service.* As a follow up of the policy, the DOAE set up Agricultural Business Promotion Center in head office and six regional extension offices to respond to agribusiness as follows:

- To disseminate marketing information, pricing policy and marketing outlook
- To coordinate and distribute the information of demand and supply of agricultural products.
- To establish agribusiness network including farmer institutions and business firms.

[3] Patron - ASBINDO

- To provide more opportunity for Thai farmers to enter into business relation with financial institution, contract farming, promote and strengthen local market.
- To conduct and organize agribusiness negotiation under the following consideration:
  - The buyers and sellers are to get together for price agreement.
  - To encourage the building of network and linkage for buyers and sellers to sell their quality produce and standard products.
  - The farmers and farmer-institutions can introduce their products to the public through the center.

Access to Global Market, will hopefully reminds us that the magnificent market opportunity is of no use if we have no exact strategy to penetrate the export market. This topic delivered by *Mr T. Hadinata, Director of P.T. Saung Mirwan*. Good strategy and Planning are needed to improve on the Indonesian ornamental plants for International Market. Many factors that support the improvement of floriculture industry in Indonesia are choice of commodity, cultivation and post harvest technology capability, human resources, continuity of seed and seedling supply guarantee, financial capital and cooperation. The commodity choice for export is very depending on the market demand therefore information regarding commodity trend, quality standard and price is very important. The consumers in the international trading tend to prefer new, unique and beautiful plants.

Jeremy Gaylard, Gangelhoff International, Vice Chairman of World Union of Wholesale Market deliver another topic that inspires Indonesia to think positively towards facilitating the growth of Indonesian Floriculture is the producer's access to wholesale market, with transparent business activities that will place producers or growers on equal term with wholesaler. Wholesale market occupies strategic role in the development of rural economy wherein the majority are represented by agriculture (agribusiness) sector. As it is proved, wholesale market will be able:

- To become the central system of consolidation of product lines.
- To become the central source of market information; the information derived from the market will be beneficial to create a transparent and just market for both sides, the growers as well as the traders.
- To ensure that the producers obtain quality control (QC) chain to return best possible price.
- To ensure uninterrupted supply of product whether it is in season or out of season.
- To enable market operators to catch the opportunity to export/import targeted product.

Finally, by having such wholesale market, it is easier to develop network with overseas buyers and another alternative to make the idea of wholesale market become a reality can be executed through technology networking.

Survey of insecticide usage in apple production in the Okanagan, Creston and Similkameen valleys of British Columbia
Executive summary of survey results

By Richard Carew
Pacific Agri-Food Research Centre
Summerland, British Columbia
E-mail: rcarew@EM.AGR.CA

Acknowledgment:
The author wishes to acknowledge the constructive comments of Dave Raworth and Hugh Philip

Introduction

Codling moth and leaf roller are major pests affecting apple production in the Okanagan, Creston and Similkameen Valleys of British Columbia. In the 1980s the bulk of pest control programs were based primarily on insecticides. Because of pest resistance and the need to prevent environmental damage, Agriculture and Agri-food Canada, in collaboration with the Tree Fruit Industry, has developed some non-

chemical control methods to reduce pest populations and feeding damage to apples and pears. In the early 1990s the Okanagan-Kootenay Sterile Insect Release (SIR) Program was implemented to eradicate the codling moth. Since 1998, the SIR program has changed direction with the emphasis on area-wide suppression of codling moth using Integrated Pest Management (IPM). This strategy includes the use of 'softer' technologies such as mating disruption to manage the codling moth and leafroller complex. This approach is timely in light of Health Canada's recent policy decision to reevaluate conventional pesticide products to determine which ones are safer for producers and consumers. The SIR program will assist the B.C. apple and pear industry to rely less on conventional insecticides and ensure that consumers and wholesalers would be willing to pay a premium for low pesticide fruit.

The SIR Program is being implemented in stages according to three geographic zones. Sterile moths have been released in Zone I since 1994. This zone[4] includes a greater number of growers than in either zones II or III. On average, orchard sizes are smaller in zone I than in II or III and are planted to a larger number of new cultivars. Zone II includes Westbank, Peachland and greater Kelowna. It has relatively larger orchards and has undertaken cleanup activities to achieve low, wild codling moth population levels. It is estimated that 60% of the apple and pear acreage is located in zone II (Vakenti, 1998). Orchardists in zone II grow predominantly older apple cultivars with agricultural land competing against more lucrative land-use alternatives. Zone III is north of zone II and includes Salmon Arm, Armstrong, and Vernon. Enhanced cleanup activities are currently in progress to permit earlier release of sterile moths.

The objectives of the present study were: 1) to quantify the amounts and costs of insecticides used to control codling moth and leafrollers and determine how insecticide usage has responded to SIR pest management strategies; 2) to provide baseline data to evaluate future changes in SIR program activities especially in zones II and III where sterile moths have not been released; 3) to provide data on the extent of adoption of IPM practices and non-chemical control methods to control codling moth; 4) to provide data on the extent of fruit injury resulting from codling moth and leafroller feeding; and 5) to quantify growers' willingness to partly finance the SIR program. Such information is useful for determining the effect of the SIR program, and how the program could be improved.

To fulfill the study objectives, data on insecticide usage and background orchard characteristics were collected from sixty-nine growers in the autumn of 1999. The data were collected by pest management consultants and packing house field staff using personal interviews by means of a completed questionnaire (Appendix 1). The survey was designed to collect background data including orchard size, apple bearing acres, apple yield, type of grower (conventional vs. organic), top five cultivars grown, and the average age of the cultivar/block. Growers were also asked to provide some estimate of the amount and type of chemicals used for codling moth and leaf roller control, method of application and the months in which they were applying them. Data on IPM practices and non-chemical control methods such as mating disruption (MD) were collected to determine acres under MD and the number of Isomate C Plus dispensers used per acre. The survey format included questions on pheromone traps growers used to monitor codling moth, information sources growers utilized to seek answers for pest management problems, and the extent of fruit damage resulting from codling moth and leafroller injuries.

Survey Highlights

Insecticide use patterns for the control of codling moth and leafrollers were examined in sixty-nine apple orchards during the 1999 growing season.

The 'tree row volume' method of spraying was the predominant method of insecticide application. Guthion (azinpos methyl) was used by most growers to control codling moth, whereas for leaf roller control there were a larger range of insecticides used. Growers in zone I used fewer Guthion sprays and spent less on insecticides compared to growers in zone II. Non-chemical control methods such as mating dis-

[4] Includes Cawston, Kaledon, Keremeos, Naramata, OK Falls, Oliver, Osoyoos, Penticton, and Summerland.

ruption were not extensively used by growers surveyed. Personal responses from the survey revealed that the Okanagan-Kootenay Sterile Insect Release (SIR) Program had implemented several non-chemical control methods including the released of sterile moths, mating disruption, banding, tree removal, and trapping. These non-chemical control methods may have contributed to the reduced number of Guthion sprays and the suppression of codling moth populations in zone I. While codling moth control was more effective in zone I than in the other two zones, the survey results revealed that adequate leaf roller control has emerged as a major pest management problem. This was shown by the greater amount of fruit damage resulting from leafrollers than from codling moth. There was a greater willingness by growers in zone I and III to fund the SIR program compared to growers in zone II. Several growers in zone II expressed the need to exit the Agricultural Land Reserve program.

News from Hungary for the Horticultural Economic Newsletter

E-mail: Katalin.Szep@office.ksh.hu

Horticultural Scientific Days at Budapest

The biennial traditional scientific days 'Lippay János' has been hold at Szent István University, Faculty of Horticultural Science (earlier University of Horticulture and Food) 6-7. November 2000 joined with the 'Vas Károly' days of the Faculty of Food science. The sections of horticultural sciences included all the main areas: botanics, plant growing - ornamental, medical plants, fruits, vegetables -, plant protection, mechanisation, organic growing, management and regional development. The abstracts of papers and posters presented in the Management and Regional Development Section are available via www.kertgazdasag.hu Lippay days. English abstracts follow each Hungarian ones. Organic Farming Section via http://anubis.mezgazd.kee.hu.

Hungarian Scientific Journal in Horticulture

'Kertgazdaság' (Horticulture) quarterly review of the Ministry of Agriculture and Regional Development and the Szent István University's Faculty of Horticultural Science under editorship of the Hungarian Horticultural Council publishes scientific papers with English summary, and practical information for growers as well. There are papers on vegetable and fruit crops, grape and wine, medical plants, genetics, plant protection, organic farming and economics, marketing. Some topics of economics in recent issues: profitability of apple production, operating leverage in horticulture, practical approach to quality, plant protection habits, direct marketing, horticulture and unemployment, strategic planning, consumer behaviour, products economy. Copies available through: Editorial Office of Kertgazdaság at Szent István University, 1118 Budapest, Villányi út 35-43./K

ISHS Economics update

J.P. Ogier Economic and Strategic Adviser Guernsey British Isles
E-mail: jogier@industry.gov.gg

1. **Follow up after ISHS symposium Guernsey 2000**

   A big thank you to everyone who has written in, e-mailed or sent cards at Christmas to say how much they enjoyed the ISHS Economics, management and marketing symposium in Guernsey 2000. It was a great pleasure for us to host the event and it has been really encouraging to see the resulting contacts and networks develop in the industry. Let us all give every support to Berlin in 2004.

2. **Quality Asssurance and brand development**

   Work is continuing with the Quality Assurance and brand development amongst the 'First Choice' group of growers. This autumn staff training sessions were held to enable staff to audit each other's vineries and prod-

ucts. This was well received by the industry and will strengthen the industry ownership of their system.

3. **Industry review and business advice**
   Individual business consultancy and industry strategy work for business development. Current work includes be-spoke software for appraisal of capital projects suitable for business monitoring and investment justification to bank managers/other investors.

4. **Development of 'Intellectual Property' legislation for the 21st century**
   I am carrying an appraisal across all the Island industries on the costs and benefits if intellectual property. This will prepare the way for the development of 21st century legislation in this area to supersede the current legislation. The included are: - Plant breeders rights and UPOV, copyright, patents, trade marks, software, bio-technology rights and trade secretes.

5. **Rural retailing**
   A review of rural retailing and the development of a rural retail policy to complement town centre retailing. The way horticultural products are being sold is changing dramatically and is set to change further in the 21st century.

Call for information for the Newsletter

E-mail: n.s.p.degroot@lei.wag-ur.nl

For the continuation of the HEN it is important that you support me with some information. Without your help it is for me an impossible task to go on with the newsletter. So please co-operate with me to make this newsletter a success. You can send information to me anytime you want.

Nico de Groot
Chairman of the Commission of Economics and Management
Tel.: +31 70 335 82 52
Fax: +31 70 335 81 99
e-mail: n.s.p.degroot@lei.wag-ur.nl