

1. INTRODUCTION

The Agriculture Sub-Committee of Community Futures Development Corporation contracted Insight Research, Salmon Arm, to prepare an agricultural strategy for the Shuswap.

The first report submitted June 14, 1999, detailed an inventory of all agricultural products in the Shuswap according to the census data from Statistics Canada. The second phase of the project involved a consultation in the form of primary research among local farmers, producers, representatives from community groups and professionals. The second report dated October 14, 1999, is a compilation of the results from the second phase and includes recommendations and next steps.

This third report contains the results from additional research in the form of Internet searches and secondary research to explore next steps arising from the consultation process in the second phase of the project.

2. METHODOLOGY

Insight Research conducted Internet searches on the following topics:

- 1) unutilized wastes such as whey, colostrum, grape seeds, plastic wrap and sheepskins
- 2) farmers' markets in BC to obtain information on their days and hours of operation, etc.
- 3) unused land databases for agricultural uses
- 4) community gardens
- 5) gleaning projects.

Secondary research also took place in the form of telephone calls to individuals, reports written on specific topics such as agricultural co-ops, community gardens, fruit presses, research projects in agriculture, etc. The results of this research are contained in the following report.

DETAILED FINDINGS

A. RESULTS OF THE INTERNET SEARCHES AND SECONDARY RESEARCH CONDUCTED ON UNUTILIZED WASTES

i) Whey

Three different dairy farmers who attended the livestock and feather focus group indicated that they felt there was a good market for whey powder derived from whey-- considered to be an agricultural waste. At the present time, these farmers are feeding their whey to their pigs or cows or dumping it on their fields in the Winter. Neighbours who own other livestock such as boar are also taking it to feed to their animals. One farmer mentioned that the whey from making goat cheese is sweet compared to other whey derived from cheddar cheese which has a lot of salt in it.

Whey is a by-product of cheese manufacture which has the potential to pollute the environment when not properly treated. It also has nutritious components (proteins, lactose) which are useful food ingredients. At the present time in BC a very small percentage of whey concentrate which is used in whey products is being produced, mostly by Dairyworld Foods in Vancouver who have recently entered this market, considered to be in a rapid growth stage internationally. Washington State also produces some whey concentrate.

According to one recent study¹ whey products are being included in a variety of nutraceutical and functional food products. These products are used as food supplements, appetite suppressants and ingredients for items such as bakery products, infant formulas, beverage mixes, etc. The following chart from Land O'Lakes product line cited on the Internet revealed the many varied uses of whey.

¹ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

PRODUCT	SPECIAL CHARACTERISTICS	TYPICAL USAGE
Whey Protein	Products ranging from 80% -92% protein, providing a variety of specific functionalities such as gelation, emulsification, foaming and whipping and nutrition.	Bakery products. Infant formulas. Restructured meats. Health foods. Beverages. Nutraceuticals.
Extra Grade Whey	Economical, multi-use product.	Bakery products. Carrier for flavours and seasonings. Frozen desserts. Dry mixes. Snack foods.
Granular Whey	Granular particles improve dispersion and free flowing properties.	Hot cocoa. Beverage mixes. Vending beverage mixes.
Deproteinized Whey	Multi-application product. Excellent replacer for whey and lactose.	Carrier of flavours and seasonings, bakery products, dry mixes and as a bulking agent or filler.
Coarse Grind Whey	Larger particle size than whey but smaller than Granular whey. Improves dispersion and free flow characteristics.	Hot cocoa. Beverage mixes. Prepared Food Mixes.
Lactose	Has useful properties of solubility, low sweetness, flavour enhancement, browning and tenderizing.	Bakery goods, confections, special diet formulations, health and geriatric foods, infant formulas, chocolate and flavoured fruit drinks.
34% Whey Protein Concentrate	Bland flavour, high solubility in water, high Protein Efficiency Ratio (PER) of 3.2.	Most food applications and is effective as a replacement for nonfat dry milk.

Another study reported on the Internet on the treatment and utilization of whey from Greek Cheese Factories stated that only 12% of the whey produced is utilized and used mainly as a liquid ingredient. This report stated that an ongoing EC SPRINT (Innovation and Technology Transfer) project with seven partners from

four countries is investigating the whey utilization issue. The definition of the project involved the;

- identification of marketable products
- number of cheese producers participating
- establishment of an economic system for the collection and transport of whey
- design of processing facilities for producing marketable products
- establishing economic viability of the project.

This particular study felt that the community benefits from this project will be environmental (pollution reduction), economic (added value products from whey), and strengthened regional food industries.

Internet searches also discovered that Dairy Management Inc. (DMI) in the United States is continually working to bring new applications, ideas and technological advancements to the food manufacturing industry. The 1999 dry milk/whey research priorities of DMI were listed as the following;

- To enhance and control the significant functional attributes, stability and consistency of major dry milk and whey ingredients.
- To develop new applications for dry milk ingredients, dry whey and whey derivatives, and their components, for emerging opportunities in domestic and international markets.
- To develop new utilizations for the by-products of the manufacture of whey derivatives.

Seven different research projects which are being conducted by DMI, were also listed for whey, three of them are listed below;

- 1) Application of whey proteins as emulsifiers in foods
- 2) Developing an extruded whey protein meat extender suitable for use in coarse-ground meat products
- 3) Biosurfactants and bioemulsifiers from whey.

Another report from a local BC study² indicates that *“the European market is dominated by Bioforce AG, based in Switzerland but opportunities exist for market*

² Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

expansion in the European Economic Community as well as Asia. These are large volume markets but smaller markets exist for certified organic, kosher certified whey products. The products in this particular study include;

- Whey Powder
- Lactose
- Reduced Lactose Whey
- Whey Protein Concentrates
- De-mineralized Whey
- Milk Mineral Concentrates
- Ethanol
- Whey Protein Isolate.

At the time of the above study (June, 1999), whey powder was obtaining a wholesale price of .21-.24/lb, US dollars, with a fairly stable price volatility and an increasing market size.

The techniques used to obtain whey concentrate are membrane filtration, chromatography, concentration and drying. Canadian Inovatech Inc. in Abbotsford, BC,³ has developed processes for isolating lactogerrin and milk minerals from whey using membrane filtration. Canadian Inovatech, Inc. also has excess capacity for drying whey⁴ and would be available for contract processing. Dairyworld Foods⁵ in Burnaby, BC uses membrane filtration and short-tube evaporators to produce whey protein concentrate and isolate here in BC.

Although there appears to be substantial market opportunity for whey products the potential challenges⁶ noted include;

- High volume markets
- Trucking costs for liquid whey
- High capital costs.

³ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

⁴ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

⁵ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

⁶ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

The potential partners for whey products cited in the study included not only Canadian Inovatech, Inc. and Dairyworld Foods, but also Darigold in Olympia, Washington.

In the first report⁷ submitted by Insight Research there were three categories of farm livestock which are involved with whey and which showed increases between 1991 and 1996. These were sheep and lambs with a 51% increase, dairy cows with a 37% increase, and goats which are included among other items in the miscellaneous specialty category. The producers (and their companies) in the primary research conducted by Insight Research who were very interested in the uses for whey included;

- Gort's Gouda Cheese - Arie Gort
- Happy Day's Goat Cheese - Donat Koller
- Mountain Meadow Sheep Cheese - Steven Bradbury.

Another large cheese company which has just recently opened its doors and who might also be interested in whey products is the Village Cheese Company in Armstrong, BC.

Despite the fact there seems to be numerous uses for whey products, the Shuswap producers who are interested in developing a whey product need to keep informed about the status of a possible extraction facility in the Okanagan.

ii) Colostrum

One of the sheep farmers mentioned that colostrum from sheep is used as an ingredient in an anti-aging soap. She felt that there was a market within the cosmetic industry for the colostrum which is thrown away by farmers in buckets because it can't be used for making cheese. This particular sheep farmer who has a flock of one hundred sheep is using her sheep milk not only for cheese (she ships frozen sheep milk to a cheese maker on Saltspring Island) but also sheep soap.

An Internet search for colostrum showed that a manufacturer, Vitality-Corp., were making a colostrum cream. The advertisement for this cream stated that science

⁷ An Agricultural Product Inventory of Subvision C, Columbia Shuswap Regional District, June, 1999

has found that colostrum contains a wide assortment of substances that nourishes and rebuilds skin. Colostrum is a rich source of retinoic acid, a form of Vitamin A -- considered to be the most important of all the vitamins for the skin. Colostrum is also a rich source of natural nucleotides and these are what determine the life span of skin cells and how well they repair and reproduce. One other nutritional factor found to be present in colostrum is epidermal growth factor (EPH) which actually stimulates DNA and RNA to repair the cells of skin --even when damaged by age, sun, chemicals or injury. EPH has benefits for restoring healthy youthfulness of skin cells quickly.

iii) Grape Seed Extracts

Grape seeds were cited in the report, Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, as one of the five locally available feed stocks as possible sources for raw materials for an extraction facility. Grape seed extracts contain anti-oxidants which have been identified as retarding the aging process.⁸ A significant market opportunity has been identified by industry insiders in the food and cosmetic industries, especially as the current population ages. Other anti-oxidants are extracted from some berry crops and botanicals (e.g. blueberry, pine bark=pycogenol).

The products to be extracted are phenolic compounds which come from the seed and/or skins of grapes. The wholesale price for grape seed is \$150-\$375/kg US and the price volatility was considered to be high. In the case of grape seed extract currently, prices are changing with world production oversupply.

The different methods of extraction for this product include solvent extraction, membrane filtration, evaporation and drying. The potential partners were considered to be large wineries, Omega Biotech in Sidney, BC and Pacific AgriFood Research Centre in Summerland, BC. Contract processing is not available at the present time.

The potential challenges for this new product were:

- Need to balance quality levels with market volumes

⁸ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

- Regulatory issues related to health claims
- Market forecasting as Asian extractors improve quality.

iv) Fruit Extracts

In the above cited report, fruit extracts were also mentioned as a locally available feed stock for an extraction facility. This study⁹ stated that fruit extracts were used as ingredients in a variety of markets worldwide. For instance, apple aroma extracts are being used in retail markets to restore volatile chemicals lost through storage and transportation and this was a recently identified opportunity gaining strength in the US. Natural fruit extracts were increasingly being used in conjunction with chemical synthetics in cosmetic, food and flavouring industries.

Additional fruit extracts being used include;

- peach - pits and essence
- apricots - pits and essence
- berries
- grapes.

Methods used to get fruit essences out include aroma concentration and fractionation. Fruit essences, depending on their concentrations, are worth \$290 - \$340/kg (for 2,000-12,000 fold concentration) to \$3,000-\$6,000/kg (for 100,000 - 200,000 fold).

Other potential end uses and value added opportunities were;

- add to dry products (e.g. fruit snack bars) to give an aroma impact when the package is opened
- add to packaged or bulk produce to replace volatiles lost through controlled atmosphere storage
- use in cosmetic and perfumery industries.

Potential partners for this particular feed stock who might also be interested in contract production were;

- 1) Canadian Cedar Oil Technologies
- 2) PWS Technologies, Kelowna

⁹ Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen, June, 1999

3) Norac Technologies, Edmonton.

The Pacific Agriculture Research Centre in Summerland has equipment suitable for research purposes.

iv) **Agricultural Plastic Waste**

Plastic hay bales and binder twine are not being recycled at the moment by Commanda Recycling. Although there is not a recycling facility in B.C. accepting the refuse, as it is too dirty and no one is equipped to clean it, there is an interest. There were 757,000 metric tons of plastic waste dumped from the Fraser Valley alone, in 1998. In the last five to ten years, use of round bale silage has increased significantly, therefore, the plastic waste has also increased. As one producer in our study said:

”Someone needs to take the plastic and make it useful.”

Commanda Recycling does accept milk jugs which they compact and then ship to the Coast where they are sent overseas. According to Don Bates, Ministry of Agriculture, there is a lumber manufacturer in Langley who is accepting the milk jugs and using them to manufacture a wood product.

v) **Sheepskins**

One of the respondents in the livestock and feather focus group conducted for Phase Two of this project mentioned that she felt there was a market for sheepskins, an agricultural waste product. This particular sheep farmer mentioned that the cost of processing sheep hides at a tannery in Vernon was “*almost prohibitive*” (\$85), considering the fact that consumers can buy a New Zealand sheepskin for \$95-125. With this high price of processing the hides there was very little profit left for the farmer. The Vernon processor, however, were considered to be excellent and produced hides which were soft, subtle and clean.

“People will pay a lot of money for a New Zealand hide but locally it is a missed market because no sheep farmer wants to pay the price to have them processed locally.”

She felt there were a lot of high quality hides available locally which were thrown out. This particular farmer also mentioned that it cost \$65 to have hides processed in Alberta and \$50-65 to have them done in Ontario.

B. RESULTS OF THE INTERNET SEARCHES AND SECONDARY RESEARCH CONDUCTED ON FARMERS' MARKETS

A listing (1997) of fifty-four farmers' markets in BC was found on an Internet site and although Armstrong, Enderby, Sicamous, Kamloops, Kingfisher, Revelstoke, and Vernon farmers' markets were listed, the Salmon Arm Farmers' Market was not included on the list. A total of 80% of the fifty-four farmer's markets listed operate their market on either Saturday or Sunday. This is an important finding considering the fact that the Salmon Arm Farmers' Market does not have at least one day of operation on either Saturday or Sunday. We recommend that in order to increase traffic at the Salmon Arm Farmers' Market it should be open at least one weekend day in consideration of those who are working and are unable to shop during the weekdays from 8-12:30 a.m. on either Tuesday or Friday, the current days of operation.

A further Internet search revealed that in the San Francisco Bay Area, out of a total of seventy farmers' markets in operation, 64% operate their farmers' markets on either a Saturday or Sunday. In addition, quite a few are open in the late afternoon and evenings on weekdays (4-9 p.m.).

C. RESULTS OF THE INTERNET SEARCHES AND SECONDARY RESEARCH CONDUCTED ON UNUSED LAND DATABASES FOR AGRICULTURAL USES

One of the ideas arising from this agricultural project was a database where those property owners who had excess, usable land they wanted to lease could list it for other property owners who wanted additional land in order to produce more crops but could not afford the purchase of the land.

Insight Research contacted Barry Smith, Senior Land Use Specialist with the Resource Management Branch of the Ministry of Agriculture, Abbotsford, BC. He was unaware of any unused land databases within the province but when the idea was described to him he thought it was an excellent one. He mentioned that the Agriculture Land Commission, in the past, had leased back to farmers some land they had owned but he was unaware of this type of interchange occurring among owners of private farmland.

Kevin Murphy, the district agrologist for the Shuswap was also contacted regarding this idea and he was also unaware of any database or initiative for underutilized/idle agriculture land in BC.

Barry Smith mentioned that the Ministry of Agriculture is conducting a new Geographic Information System (GIS) pilot test in Pitt Meadows that can provide a model for other BC communities. This model serves many planning functions from plotting drainage systems and soil types to tracking commodity production and keeping comprehensive records on land use within and bordering farm areas. Plans are underway to investigate the feasibility of linking the GIS to the city's web site in Pitt Meadows. Those people looking for farm land will soon be able to "point and click" to find information regarding an individual parcel to determine its suitability for a particular commodity.

A review of the first report produced for this project in April, 1999, An Agricultural Product Inventory of Subdivision C, Columbia Shuswap Regional District, lists in Table 7 the following statistics;

- total area of 597 farms reporting was 63,167 acres
- area owned by 574 farms reporting was 43,861 acres
- total area rented or leased from others was 19,306 acres
- area rented or leased from government was 12,154 acres
- area rented or leased from other sources was 7,152 acres.

These figures show that in 1996 -- 31% of the acreage reported by farms were either rented or leased from others, with 63% of this acreage being leased from the government and 37% being leased from other sources. It is probably safe to assume that some of these other sources include fellow farmers who have unutilized acreage they are renting out to other farmers.

D. RESULTS OF SECONDARY RESEARCH ON AGRICULTURAL ADVISORY COMMITTEES and WAYS FOR LOCAL GOVERNMENTS TO CONNECT WITH THEIR AGRICULTURAL COMMUNITY

An article in a pamphlet recently produced by the Ministry of Agriculture and the BC Agriculture Council¹⁰, talked about the establishment of Agricultural Advisory Committees (AAC's) within regional districts. These committees were thought to be an effective way to provide local governments with advice on day-to-day and long-term agriculture issues. Currently, there are about a dozen AAC's established by local governments throughout BC. Kelowna's AAC provides advice to Council on applications involving the ALR and the review of major projects that may impact the City's farm areas. The AAC also supported the work of the Advisory Committee which developed Kelowna's Agriculture Plan. Currently, the City is exploring the active involvement of the AAC in assisting with the implementation of the Agriculture Plan.

The article stated that AAC's can contribute to Council/Board's efforts in the following ways;

- raise the awareness of agriculture and its importance to the local and regional economy
- aid in the development of Agricultural Area Plans and their implementation
- assist in the development of agricultural economic strategies
- improve opportunities for joint funding of drainage and irrigation works
- identify and effect change regarding the impact of transportation corridors, recreation facilities and urban development on agriculture
- applications to amend community plans and bylaws
- applications initiated under the Agricultural Land Commission Act
- reviews or development of community plans and bylaws.

The contact person for AAC is Barry Smith, Sr. Land Use Specialist of the Resource Management Branch, MAF - phone (604) 556-3106, e-mail: Barry.Smith@gems4.gov.bc.ca

¹⁰ Growing Together, The Rural-Urban Connection, Fall, 1999, Vol 1, No.1,

Another article in this recent publication cites different ideas for local government to consider to better connect with their agricultural community. These were;

- Advisory Planning Commissions and Committees (AAC's)
 - when agriculture plays a prominent role in land use or a large part of an area's economy, local government should consider appointing a farm representative to their Advisory Planning Commission
 - chairs are often reserved for agricultural representatives to ensure their participation on other local government committees such as the Economic Development Commissions, Healthy Community, etc.
- Farmers' Institutes/Commodity Groups
 - Farmers' institutes can assist planning processes by identifying agricultural issues, helping to develop planning studies and agricultural strategies, etc.
- Agricultural Advisory Committees (AAC's)
 - mentioned above
- Liaising
 - it has proven valuable if a council member is designated as a "farm/ranch liaison" person
- Tours, Workshops and Direct Farm Marketing
 - these are ways to make contact with the agricultural community
 - producers retailing from their farm gates provide an excellent way for everyone to make a direct connection with BC Agriculture.

E. RESULTS OF THE INTERNET SEARCHES AND SECONDARY RESEARCH CONDUCTED ON AGRICULTURAL CO-OPERATIVES

The desire for co-operatives was mentioned by respondents within the focus groups and interviews conducted for Phase Two of this agricultural project. Some farmers felt that a marketing co-operative would be useful while others talked about co-operative advertising among producers. A couple of larger producers already belonged to a co-operative who was responsible for marketing their produce. In many cases, knowledge about the way in which a co-operative worked was limited.

Insight Research has included a recent publication in the new Resource Library from the Ministry of Agriculture entitled: Agricultural Co-operations, A Start-up

Guide. This comprehensive booklet describes a co-operative and gives steps to start a co-operative. A relatively new type of agricultural co-op is the New Generation Co-operative whose purpose is to add value to producer goods through the joint processing of raw commodities. The members of a New Generation Co-op are the producers who purchase shares obligating them to deliver a specified volume of raw product to the processing facility.

According to this booklet¹¹ the name New Generation Co-operative (NGC) refers to a type of processing co-operative which uses a particular form of marketing agreement to raise the large sums of capital required to invest in value-added processing activities. The differences between NGC and the classic, traditional co-ops include:

NEW GENERATION CO-OPS

- closed membership
- substantial initial investment
- supply fixed through delivery contracts
- profits from selling finished products returned to members.

CLASSIC, TRADITIONAL CO-OPS

- open membership (non-discriminatory)
- small initial investment
- uncertain supply (volume and quality)
- profits often retained to finance growth

The number of shares available in an NGC is limited according to the capacity of the processing plant. Once the plant is operating at maximum capacity, shares can be traded among members pending board approval. The price at which the shares are traded reflects the benefits members expect to receive from the co-operative over time. The benefits to members include a guaranteed market for a portion or all of their production and the potential to share in the earnings generated by the co-op's processing operation.

The five steps mentioned in the booklet for the organization of a co-operative business are;

- Step 1: Identify a Common Economic Goal
- Step 2: Determine Business Feasibility
- Step 3: Develop a Business Plan
- Step 4: Draft Legal Papers and Incorporate the Co-operative

¹¹ Agricultural Co-operatives, A Start-up Guide, Ministry of Agriculture

- Step 5: Implement the Business Plan and Begin Operations.

An Internet search on co-operatives discovered that anyone who is actively engaged in farming in Canada and operate within a cooperative association are eligible for a Farm Improvement and Marketing Cooperatives Loans Act (FIMCLA) loan. The maximum amount that can be borrowed is up to \$3,000,000 for the purpose of processing, distribution or marketing the products of farming on a cooperative basis. Each member or shareholder of the cooperative has to be a farmer.

The Ministry of Agriculture has also published a booklet, Financing Agricultural Co-operatives, An Overview, and this booklet is included in the Resource Library collection. The topics in this publication talk about co-operative finance and base capital plans.

An excellent book for small farmers, Metro Farm: A Guide for Small Farmers, talked about the fact that small-scale farmers who operate in small towns and villages often lack the ability to reach into lucrative markets of big cities. They suggested that this limitation may be overcome by forming a marketing cooperative. Individual farmers often cannot afford to market products and there are four ways in which a co-op's economies of scale can help individual farmers market goods;

- a co-op can combine advertising needs of its members and buy in volume
- a co-op's organization enables individuals to share a promotion thereby reducing costs considerably
- a co-op can develop and promote a brand name
- a co-op provides a format by which harvest festivals and other community-oriented promotional activities can be organized.

Howard Joynt, an agrologist at the Ministry of Agriculture in Vernon was contacted about more information re: cooperatives. He mentioned the newly formed spelt growers co-op in Armstrong, BC. and feeder associations in Williams Lake and other areas who have decided to become cooperatives. Howard talked about the fact that he has had enquiries from an organic garlic grower who would like to meet other organic garlic growers to explore the possibility of forming a

cooperative. For garlic producers, Howard felt a co-op would be a viable way to finance and build a grading and storage facility.

F. RESULTS OF SECONDARY RESEARCH CONDUCTED ON FRUIT PRESSES

Seven different orchardists and fruit retailers were contacted about the existence of a fruit press. Mac Davidson of Davidson's Fruit Stand in Salmon Arm has sold his fruit press to someone in Summerland. James Hanna of Hanna Orchards is unaware of any fruit presses in this area but Kevin Stadnyk from Belly Acres in Salmon Arm does own a press but claims that it is not in use at the moment. Terry Titus also owns a fruit press for his own personal use and he had some people come this year to use it but he felt it wasn't worth the effort. He does have a design to build your own press and is willing to show the prototype to anybody who is interested. De Mille's do not have a fruit press available and don't know of any others in the area. The Golden Pantry, a health food store in Salmon Arm, used to rent out a fruit press but they do not do this anymore and they don't know of any others in the area. Davison's Fruit Stand in Vernon have a fruit press, for apples only, and the minimum order is four hundred pounds. The cost is .8 cents per pound which includes washing and pressing and people must supply their own containers. Delivery is not available. They suggested that we should check the Morning Star newspaper in the classified section for the availability of presses in the area.

G. RESULTS OF SECONDARY RESEARCH CONDUCTED ON LARGE FREEZER RENTAL SPACE

The owner of Pilgrim's Produce in Armstrong was contacted re: rental of freezer storage space and he claims to have storage available --- he has only one other farmer using the facility at present with frozen strawberries. He usually has storage space available in the Winter. He felt it was possible for him to expand but he would like to have a contract before he went ahead with expansion plans. The cost to rent freezer space was dependent upon the amount of space needed, seasonal use, and the length of time in storage.

H. RESULTS OF SECONDARY RESEARCH CONDUCTED ON COMMUNITY GARDENS

Two different individuals were contacted regarding two community gardens. Rebecca Kneen, in Sorrento, who has been involved with community gardens in the past, indicated that they start with a group of interested people and usually land that has been donated from the government, or from an individual or an interested group. Initially a public talk about community gardens or a meeting or get-together takes place in order to initiate some interest in the idea. She felt that the project needs to have more than one person to start the project going.

An horticulturist for the City of Kamloops, David Atkins (250- 828-3516) who oversees community gardens was also phoned. He mentioned they have four community gardens in service at the present time. One is at a reservoir site, one in park land, another on the hospital property, and the remaining one is a residential area. The two community gardens which are on city property are maintained by the City and both have chain link fencing around them. The City is responsible for water service, maintenance and clean-up and David felt that security can be a problem, depending upon the location of the garden. There is a four foot high chain link fence around the residential garden and the one out by the airport is installing a six foot fence.

The City of Kamloops has the master lock and for a \$20 fee, keys are issued to participants; one water key and one entrance key. The fee is forfeited if the keys are not returned and the plot is not cleaned up properly when they leave. The community gardens are managed by a volunteer co-ordinator and volunteers are responsible for registration and the policing of the policy. David mentioned that all kinds of people use the community gardens.

There were legal issues regarding land ownership depending upon where the garden is located, e.g. the hospital is responsible for the garden on their land. In Nanaimo, the church property donated the land and the water. In Kamloops, Laura Kalina, at the South Central Health Unit is very involved with the community gardens and community based foods. David felt that it was important to find a location for a garden first and then hold community meetings and an open house to determine the interest in the idea.

A series of articles from Internet searches are included in the Appendices. They provide valuable information on resources (e.g. books, etc.) on community gardens and a list of various community gardens in operation and contacts.

I. RESULTS OF SECONDARY RESEARCH CONDUCTED ON GLEANERS AND OKANAGAN GLEANERS

An Internet search on gleaners in general mentioned that Gleaners Community Food Banks secure, store, and distribute food to local non-profit agencies and charities that directly feed the hungry and needy. These include;

- those experiencing a crisis or emergency --struggling seniors
- low income, single parent households -- ill or disabled
- working poor or unemployed -- the homeless.

The non-profit hunger relief programs include;

- food pantries
- soup kitchens
- meal agencies.

Other types of organizations who might use the Food Bank include shelters, residential care centres and day care centres.

The article stated that donations come from; food manufacturers, distributors, wholesalers, retail stores, and community food drives. The types of food are varied and include meat, fresh produce, dairy products, beverages, frozen and canned vegetables and cereals. Soap, paper products and other essential food items are also available.

Recipient agencies that are able, contribute a nominal fee, of fourteen cents per pound of food, to help offset operational expenses such as transportation and distribution. Non cash support is provided by volunteer hours or contributions of food, equipment or supplies. Volunteers assist in all areas including warehousing, administrative functions, transportation, food drives and special events. A full-time President manages the administrative and warehouse staff. Operation policies

are determined by the Board of Directors. Capital expenditures are raised through foundation and corporate gifts as well as individual donations.

The facilities and equipment include: a) a warehouse with a freezer, cooler and fresh room b) a twenty foot truck which is refrigerated c) donated vehicles d) leases on eight pallet trucks to transport donated food.

Bob Ellis of Okanagan Gleaners, (250) 498-8859, in Oliver, was contacted regarding

this project. They are a Christian organization and everything is donated to them and the finished product is destined for the Third World. He felt that there was no definitive way to conduct this type of project and it has all evolved through trial and error. Most of the volunteers are retired and two weeks ago a Salmon Arm couple, Ben and Marta Peters, came and worked for them. Another person from Salmon Arm, came yesterday to see the extent of the operation.

One dryer has been donated by Okanagan Dried Fruits (when they purchased a larger dryer) in Okanagan Falls to the organization and it processes one ton of fruit a day. When Sun Rype bought out Okanagan Dried Fruits and moved their business to Kelowna they donated three more dryers. Each dryer is worth \$120,000 and currently there are two in use and a third is ready for production next year. The fourth dryer is slated to go to Fraser Valley Gleaners at the Coast. Okanagan Gleaners have a service which picks up the donated fruit and vegetables and the volunteers also drive to the Coast regularly to pick up donated fruit and vegetables. A vegetable soup mix is being processed next week. Their months of operation are seven months -- from the end of March to the end of October. They have warehouses, storage facilities and are such a large endeavor that a visit is recommended in order to assess all the factors.

J. RESULTS OF SECONDARY RESEARCH CONDUCTED ON THE TREE FRUIT PROJECT IN VANCOUVER

The Tree Fruit Project in Vancouver (604-873-1191) started their project after reviewing the great success of similar projects with gleaning in Nanaimo and Washington State. It was extremely difficult to make contact with the individuals at the Tree Fruit Project but after leaving ten messages they returned our calls.

Their voice message mailbox requests a person to leave their name, telephone number and whether they have fruit to be picked or would like to pick fruit or be a volunteer. They mentioned that they had been swamped with telephone calls and their project seems to have been very successful. The project co-ordination, was handled by a board of six interested people (the executive).

Two young women started the project in March, 1999 in Vancouver. They did market research to determine the interest in the project, and the need for the fruit in the community before printing a pamphlet telling people about the idea. Media promotion was the next step and they wouldn't have been as successful without the help of CBC, local radio and television stations as well as local newspapers. The media exposure was considered to be crucial to their success. They sectioned off an area in Vancouver where they felt they would have the best response but decided against mapping the fruit trees as it would be too big a project, at that time. It took “ a huge amount of time to co-ordinate “ but the program was very successful as they picked over two thousand pounds of fruit from twenty five trees, with fifty volunteers. They have had calls from all over the province requesting information from many different communities.

The two women who organized the project did all the calling to all the fruit tree pickers to organize them into teams of four and to co-ordinate convenient picking times between fruit tree owners and the volunteers. They used e-mail as much as possible.

Basically, volunteers pick the fruit and perhaps prune the trees for increased production and 50% of the fruit picked is donated by the pickers and is then matched with a needy organization e.g. Food Bank, Community Kitchens, shelters, etc. The remaining 50% is split between the picker and the fruit tree owner, who often doesn't want the fruit. Needy organizations were encouraged to call in with their requests.

The tree fruit owners were contacted with a list of questions at hand;

- how tall is your tree?
- do you have a ladder?
- are there any power lines close by?

- what time do you want the pickers?
- are there any neighbour issues?
- do you want the whole tree picked?

The volunteers also had to be listed with all the pertinent information such as;

- contact numbers
- address
- time available to pick.

The organizers held four canning workshops in shelters, neighbourhood houses or commercial kitchens to better educate the pickers and other interested groups. These were attended by groups of Vietnamese parents, Mothers on welfare, and groups of people who wanted to make jam. They did show how to do both hot and cold pack with practical items, e.g. applesauce. The participants were signed up by the shelters, welfare groups, and community centers, as well as being attended by the pickers. Canning groups got together for a day or two and after picking, they processed the fruit.

The organizers planned a festival around the gleaning which was held on the third weekend of October, as an effort to link neighbours and strengthen the community. Their vision for next year is to educate other communities. She lived in Salmon Arm for a few years and is willing to give more detail, as needed. The contact person for this project is: Noelle Mathis, 38 West 17th Avenue, Vancouver, BC V5Y IZ4, phone (604) 879-0837.

K. RESULTS OF SECONDARY RESEARCH CONDUCTED ON THE LANGLEY RURAL PLAN AND THE SAANICH PENINSULA AGRICULTURAL STRATEGY

Barry Smith of Whole Farm Practice in Abbotsford (604-556-3106) was contacted and he worked for the Agriculture Land Commission. He felt that the Langley Plan had very good economic projections and goals and they linked their efforts with the Economic Development Commission (EDC). The EDC always retained a seat for a farm representative to sit on it and they have continuous contact with the planning people. The Langley Rural Plan has been sent to Insight Research and is included in the Resource Library. The Township of Langley was one of the first,

largely urban municipalities, to intentionally focus a planning exercise on its agricultural area with the adoption of the 1993 Langley Rural Plan.

The Planning for Agriculture resource materials costs approximately \$50 and it was produced in 1998. The slim version (67 pages) of this 400 page document has been sent to Insight Research and will be included in the Resource Library. The phone number at the printers, if there is a desire to order this publication, is (604) 737-0818.

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The Saanich Peninsula Agricultural Strategy was also recommended as a good plan, however, we were unable to contact someone to locate additional information about it.

L. RESULTS FROM RESEARCH ON DESIGN AND IMPLEMENTATION OF A SHUSWAP AGRICULTURAL WEB SITE & GETTING YOUR FARM ON THE WEB

i) Design and implementation of a Shuswap Agricultural Web Site

An article on the Internet¹² about Direct Marketing stated that *“the Internet offers a world of marketing opportunities. Its key features are 24-hour accessibility by anyone with Internet capabilities, a level playing field for both big and small producers, and greatly expanded reach without the costs and limitations of direct mail. Browsers can actually shop on-line and mail-order products and services.....”*

The article gave the following example of a producer and his experience of setting up a web page.

¹² Appropriate Technology Transfer for Rural Areas, Direct Marketing Business Management Series

“Within six months of setting up a Web page and beginning an e-mail newsletter, Gene Gage of Papa Geno’s Herbs found that plant orders from the Internet had surpassed those from his traditional mail-order catalog. Size of the average order through the Internet was higher. Gage sends his e-mail newsletter out 15 times a year. Advertising on e-mail is cheaper, he says. It would cost him 50 cents to send a post card to each customer. Direct mailings to 40,000 people would cost him \$20,000. The same people, assuming they had access to a computer, could be reached by e-mail for \$5. Each day he receives 100 messages via e-mail. These are in addition to the orders that an employee takes in from her home. The hard work involves spending 20-40 hours a week on-line, for business and “schmoozing.” Gage is constantly on the lookout for links to add to his web page and spends hours giving advice free of charge as resident herb expert of America On-line and the gardening site GardenEscape.”

The idea of a web site for Shuswap producers was mentioned frequently during the focus groups and in-depth interviews. The following questions and answers pertain to the idea of a Shuswap Agricultural Web Site.

How can this assist and educate the public/users?

It will promote local farmers by providing information about the Shuswap, and information about each farm. Users can read articles featured on the front page (or search in an archives section for previous articles) about agriculture in the Shuswap.

Shuswap information would include;

- current Shuswap pictorial (in the form of a picture on the front page and a slide show and/or picture archive area). Local residents can be encouraged to submit their favourite "local color" pictures or paintings to be featured on the web site (locals whose pictures are chosen can be offered a reward incentive).
- a Shuswap history sub-page with picture archive area
- maps of the general area (possibly including topographical maps)
- driving directions
- local columns, cartoons, quotes
- public events and showcases calendar
- agricultural frequently asked questions sub page (FAQ's) for the public
- an agri-tourism sub-page
- a Shuswap contact information chart

- Shuswap agricultural resources list (include on-line and off-line listing information)
- regional weather forecasts.

Users will be able to read farm information by;

- Region (with a clickable map). Promotional text for agri-tourism can be linked under this map as well
- Alphabetically
- By area of production (types of products produced) and/or other categories.

The site will also have its own search engine. By implementing existing search engine technology, users are able to enter keywords to search the entire contents of the web site at once.

Individual farm pages could include;

- picture and/or logo representing farm, history, contact information, list of products produced, seasonal availability, hours of operation, driving directions and map
- farm sub-pages can also include: what's new/update area, current product availability status/price list, ordering instructions, and/or e-commerce orders (performed directly from the farmer's sub-page, or users are sent to an ordering area when they wish to purchase a product) page, or an ordering area that is linked to from this page.

How can this benefit farmers?

A database could be created noting not only used vs. unused land which interested farmers could lease, but also what is being grown - to promote healthy diversification. The web site could contain a list of every local farmer and what they produce. This would also foster communication with the farmers and promote networking (from fellow farmers and suppliers, shippers, etc.).

It will also serve as an on-line database and resource library for the farmers themselves. There could be FAQ pages, On-line farmers Almanac (weather, planting days, etc.), on-line farming manuals (either borrowed from other web sites, or simply links to other web site articles).

An additional on-line database could be created to allow farmers to partner with other sectors which are complimentary (fruit farmers work with bottlers and labelers, shippers, etc.)

There could be web links and promotion on the web site for existing marketing courses for farmers.

An example of e-commerce can be seen in the virtual elevator. As one producer said:

"In the Peace River, the organic growers put together a Virtual Elevator, where nobody's grain left for market until it was sold so if someone said they needed two hundred bushels of organically grown spelt, he hit the computer and it was sold at that price. Farmers weren't hauling grain at the wrong time and were able to maximize a dollar..."

This web site would need to be manned by a web master who would be responsible for updating information and adding new information, etc.

Anyone wanting to research an idea or new product could go on the Internet and do a keyword search (among different search engines - especially Hotbot, which indexes every word of every web site it can contact). They would be able to conduct searches from a list of products grown here to find it listed as an ingredient in a new product (to gather good new product/marketing ideas), and/or to see how other people in the world are using, selling and marketing the product. (A regularly updated area on the web site can have posts)

Appropriate web links could be:

- Buy BC and Buy Shuswap are linked to each other
- BC Ministry of Agriculture
- BC Small business, Tourism and Culture,
- Community Futures Development Corporation
- Shuswap Economic Development Corporation
- Columbia Shuswap Regional District
- Summerland Agriculture Research Centre
- Science Council of BC (would help lend finances for equipment, etc.)

- courses for growers to learn direct marketing instead of shipping direct to packing houses
- known distribution channels with the opportunity to add a link
- on-line trade magazines
- specific interest groups i.e. Beef extension and Forage groups, Alpaca Assoc., North Okanagan Organic Association, BC Herb Growers Assoc.
- Organic Mentorship Program
- WWOOF (Willing Workers on Organic Farms)
- Link to CSA (Community Supported Agriculture)
- A web site is being developed to support local BC wineries. This can be linked to a central Shuswap web site.

On-line surveys could also be posted on the web site where users are asked (and can be offered a reward as well for answering) questions helpful to the Web master and/or local farmers.

How can this be a dynamic entity?

- The web site could include a web directory bulletin board with ideas that people have locally on farming and how farmers can benefit each other.
- Web site has a supply/demand suggestion sheet letting farmers know the most profitable crops to grow.
- There could also be a posting letting farmers know the best ways to deal with their unutilized wastes.

The web site can also become a dynamic entity. The front page of the web site can feature weekly articles on issues affecting Shuswap agriculture --- by providing a forum for e-commerce.

Chat lines could be grouped by discussion topics, or bulletin boards for posts based on topics could be offered. Experts can be made available for answering questions. Experts can be made available live as discussion group mediators, or guest speakers (audiences can read typed text, or listen to speech using video/audio streaming). Experts can, at their own leisure, post responses to e-mailed questions and/or requests. Farmers can also act as mediators. Free message boards could also be made available.

Community Supported Agriculture could be linked to the central web site. Farmers have been successful with box subscriptions. A web site could be set up to accept and process instantly, box subscription orders.

How can this venture make money?

Pages could be sublet from the Yahoo store for different farms.

One of the first steps would be to research the possible revenue models for the web site. Areas which could be explored include;

- Advertising - Selling advertising space on the web site in the form of banner space, etc. Banner space sold will correspond to the appropriate page. Auction page can sell banners linked to other regional or nationwide auction sites
- Government subsidy and/or grants to design and maintain the site
- Charging farmers a monthly fee for additional e-commerce capabilities (selling their farm's products on-line). Farmers can add these capabilities to their free general informational listing
- Not charging farmers e-commerce monthly fees, but instead keeping a percentage of each sales transaction
- Creation of an on-line Shuswap store selling books, t-shirts, postcards, books, tourism souvenirs, etc. This store would be on the same system as the other farmers commerce areas, but would have its own page.

How can the web site be advertised and promoted?

Ways in which the web site could be advertised and promoted include;

- First set up a complete web reporting and statistical analysis of user traffic (where users are linked from (usenet post, search engine, web page, etc.) what keywords they search under, etc.
- Registration with tourism web sites and search engines
- Create copy web pages and register these with the search engines specifically with the niche market-related keywords
- Bulk e-mailing (using targeted lists)
- Buy banner space on Yahoo or other search engines and/or web pages (purchase space based on user keyword search)
- Have exciting columns and free games or services which entice and encourage users to come back to the web site

- Offer an on-line scavenger hunt. Information must be gathered from farm sub-pages within the web site. An option is that users are also linked to related agri-business web sites that have paid to be part of the promotion, during the hunt. This scavenger hunt can be promoted along with a county wide (off-line) scavenger hunt. The two scavenger hunts can be linked (requiring participants to visit the web site, AND the real farms) or independent events.
- Finally, post and promote your URL via traditional media (radio, tv, magazine, newspapers, direct mail, cross-branding with other government or corporate promotion efforts, items such as pens, hats stickers, magnets, t-shirts, etc. bearing the web url, billboards, the sides of buses and on benches in the Okanagan)
- Put the URL on all Shuswap products sold (with stamps, stickers, on packaging, etc.).

What about inexperienced computer/Internet farmers?

One-quarter of farmers in the Shuswap own computers that they use in their farm business. Farmers need free access to a computer and a reference librarian-type web master - available to the farmers on the phone to look up information and answer queries (could be a toll free number). This person could be in an open cybercafe place or public library- - which would be open for farmers to use.

ii) Farm Management and The Internet: Getting Your Farm on the Web

An Internet search produced eight different steps for marketing a farm business on the web. These steps are included in the Internet fact sheet (see Appendix) prepared by the FBMI-net-BC: Vision 2000 project which was funded by the Canada/British Columbia Farm Business Management Program.

M. RESOURCE LIBRARY

The Agriculture Sub-Committee and Insight Research jointly agreed at the May 26th, 1999 meeting at Community Futures that compiling a Resource Directory for agricultural producers would be more appropriate than a “How To” pamphlet for farmers. As a result, materials were ordered and gathered by Insight Research for

inclusion in the Resource Directory. On October 28, 1999, members of the Agriculture Sub-Committee met and reviewed the resource materials. They selected the materials which they felt were most relevant for the Resource Directory. A complete listing of these materials are included below. The Resource Directory is available at the Community Futures office. The contact person is Marci Redding, 832-2118.

AGRICULTURAL RESOURCE

DIRECTORY LISTINGS

1999

British Columbia Agri Digest DIRECTORY-1998

- recommended by the Ministry of Agriculture as the most complete Resource Directory for farm organizations, agriculture industry references, government contacts, University and college directory, business directory, and calendar of events

1. STATISTICAL INFORMATION

- a) Details of Beef Cattle Industry- Development Fund Projects, 1995-1998
- b) Factors affecting Profitability in a Cow-Calf Enterprise
- c) Land Application of Sewage Sludge
- d) British Columbia Certified Organic Production Operating Policies and Farm Management Standards
- e) POULTRY -Statistical Summary BC Poultry Production and Value
 - Computer Information Retrieval
 - Electronic news group for poultry
- f) An analysis of Key Competitiveness Factors for the B.C. Egg Industry
- g) Census of Agricultural Statistics-1986 & 1991
- h) Census of Agricultural Statistics- 1991 & 1996
- i) Annual B.C. Horticultural Statistics- 1997
- j) Fruit and Vegetable Production, Statistics Canada - February, 1999

2. ' HOW TO ' INFORMATION

- a) Aromatic and Medicinal Plants- Technical Feasibility Study for medicinal and aromatic plants which can be grown in the Interior of BC
- b) Manure Storage Expansion Program
- c) Beekeeping Starter Kit & Conference Proceedings
- d) Planning for Profit -Ostrich
-Pheasants-1998
-Silkies-1998
-Squab-1998
- e) A Commodity Development Strategy for the B.C. Game Bird Industry (1998)
- f) Managing Game Birds-Michigan State University
- g) Pheasants-Agriculture Canada-Publication 1514
- h) Septic System Maintenance
- i) Preparing a Business Plan- A Guide for Agricultural Producers -Chicken Broiler Producer example
-Cow/Calf Ranch Example
-Dairy Producers
- j) Practical Guide to Swine Breeding
- k) Direct Marketing – A Handbook for Farm Producers
- l) On-Farm Processing- A Handbook for Producers
- m) Processing Guide to Specialty Crops
- n) Agricultural Co-operatives - A Start-Up Guide
- o) Financing Agricultural Co-operatives - An Overview
- p) Planning for Agriculture - Provincial ALC, 1998
- creating a shared vision - Resource Materials (400 pg document) available
- q) Community Plan: Rural Langley, 1993

3. NEWSLETTERS and FACT SHEETS

NEWSLETTERS

- a) The Ram's Horn-A Monthly Letter of Food System Analysis -May, June, July, 1999
- b) Farmspeak-Island Farmers Alliance-Spring 1999
- c) Island Agriculture Newsletter-March 1999
- d) Network News-B.C. Women's Institute-June 1999
- e) Organic Living-March 1999
- f) North Okanagan Shuswap Farm News- B.C. Ministry of Agriculture and Food- March 1999
- g) B.C. Herb Growers Association-December, 1998 - October, 1999
- includes Reference Library in September, 1999 newsletter
- h) Agriculture in the Classroom-Summer 1999
- i) Forage Notes- February 1996

- j) Strengthening Farming-news about B.C.'s Farm Practices Protection Act-Fall 1998
- k) Range Handbook for BC-order form
- l) Farm Folk/City Folk Newsletter, March, 1998
- m) Growing Together, The Rural-Urban Connection, Fall, 1999

FACT SHEETS

- a) Farm Management and the Internet:
 - i. The Basics
 - ii. Getting your farm on the web
 - iii. Farm Business Management –Internet Resources
 - iv. FBMI-net-BC-Feb.1999
 - v. March 1999
- b) Resources for Berry Growers
- c) Tree Fruit and Grape Industry News -October 1998
-July 1999
- d) Alternative Livestock Watering Facilities
- e) Floriculture News- August 1999
- f) BCMAF/ Industry Crop Production Guides
- g) Mites of Floriculture Crops- Biology and Control
- h) Marketing Opportunities for BC Squab
- i) The Basics of Horse Pasture Management
- j) Horses in the Community
- k) Fresh Vegetable Opportunities in BC- New Grower Information Package
- l) Specialty Crops:
 - i. Echinacea
 - ii. Goldenseal
 - iii. Industrial Hemp
 - iv. Sea Buckthorn

4. CONFERENCE PROCEEDINGS

- a) Western Canadian Medicinal and Aromatic Plants Conference 1999
- b) Opportunity Analysis for Value-Added Agri-Food Processing in the Okanagan-Similkameen. An Integrated approach to Feasibility, Marketing and Analysis- June 1999
- c) Wood Residues Conference
 - i. Executive Summary
 - ii. Outlook for Wood Residues in Agriculture
 - iii. Industrial Composting
 - iv. The Use of Mill By-Products for Soil Amendment

- v. The Three R's-Ainsworth's Experiences with Wood Residues
- vi. List of Delegates

5. AGROFORESTRY RESOURCE GUIDE- Black Binder
A compendium of references, resources and articles

6. MISCELLANEOUS INFORMATION

- a) The Countryside and You
- b) A Growing Appetite for Information- Food Biotechnology in Canada
- c) Natural Products Quick Reference Guide
- d) The Gilded Herb-Winter 1999
- e) Okanagan and Southern Tree Fruit Blossom and Harvest Schedule
- f) Beef Information Centre brochure
- g) Natural Health Products Report- January 1999
- h) FBMinet-BC Web Site
- i) BC Organic Grower- Summer 1999
- j) Stakes in the Ground - Provincial Interest in the ALC Act
- k) Agri Digest Newspapers - January to October, 1999
- September Issue - BC Ag Internet Directory 1999
- l) Agriculture Internet Directory 1999: A World of Information
- available on-line via the FBMinet -BC web site at <http://fbminet.ca/bc>
- m) Freedom Food: Farm Animal Welfare Standard Program from Royal SPCA, England