

Denman Island Farm Plan



Prepared for:

Denman Island Local Trust Committee and



Islands Trust

By:



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“An Island where we feed each other abundantly because farming is a viable and valued foundation of our sustainable community.”

– Vision Statement, Denman Island Agriculture Plan Steering Committee

EXECUTIVE SUMMARY

Farming is much more than a sector or industry on Denman Island; it is a way of life...

The development of a *Denman Island Farm Plan* was initiated in 2010 as a priority of the Denman Island Local Trust Committee, and later part of the Islands Trust Council 2008-11 Strategic Plan, in order to “support socio-economic diversity of island communities”. Farming has always held a strong place in Denman Island history and is characterized by diverse, small-scale production. Currently, the economic contribution of farming to the region is marginal with gross farm receipts and farm revenues decreasing. Concerns such as a limited consumer base, transportation costs, high land prices, and lack of processing facilities have had a significant impact on the ability of local farmers to be economically viable. The *Denman Island Farm Plan* was initiated to enhance and preserve farming in the region and work towards increased farm production that is both sustainable and resilient.

A vision statement was developed by the Agriculture Plan Steering Committee to help guide the process of the *Farm Plan* and provide direction when determining recommendations and an implementation plan. The vision statement for Denman Island is “*an Island where we feed each other abundantly because farming is a viable and valued foundation of our sustainable community*”. The term *Farming* has been intentionally used throughout the *Farm Plan* as the Committee felt that it brought about ideas of growing food and farm products, and raising livestock, and was more inclusive and historic than the term *Agriculture*. Aquaculture was not addressed in the development of the *Farm Plan* due to budget constraints and limitations placed on the scope of the *Farm Plan* by the funding partners. Since aquaculture once played an important role as both an economic driver and an employment generator, the Islands Trust is encouraged to conduct an analysis of aquaculture production on Denman Island and include it in future planning around food and farming. Conventional forestry practices have not been addressed in this plan, but the steering committee recognizes and encourages agroforestry on Denman Island.

The first phase in developing the *Farm Plan* was to produce an *Agriculture Strategy* that could provide background information about Denman Island. The *Agriculture Strategy* was completed along with a thorough survey of consumers and producers in the summer of 2011. This Summer Survey helped to further provide an accurate profile of farming on Denman Island.

With a relatively mild climate and productive soils, Denman Island is home to a wide variety of farming operations. A total of 99 farms were identified during the Agricultural Land Use Inventory (LUI) and Summer Survey at different scales of production. The majority of the farms were between 4 and 28 hectares, which is consistent with overall farm size in BC. The most abundant farm types reported from the LUI and Summer Survey data were in the fruit, berry and nut farm category at 62% with vegetable farms following at 50% of the 99 farms. Hay and forage (plant material eaten by livestock) farms were also prevalent high at 45% with poultry farms following at 35%.

In the 2006 Census of Agriculture, farmers reported low gross farm incomes and high operating expenses leading to very low gross margins. Additionally, average revenue per farm was \$7,351, which was much lower than on many other Gulf Islands. It is important to mention that Denman Island does not have large wineries or poultry operations, unlike other Gulf Islands, which substantially affects the overall average gross farm incomes. Also, there is a strong barter and trade network on the island, which does not translate in revenue figures. The low farm revenue and gross farm receipts experienced by Denman Island farmers demonstrates the strong commitment and dedication to farming in this region.

Through the development of the *Agriculture Strategy*, *Summer Survey* and the *Farm Plan*, many challenges and opportunities associated with farming were raised. Common themes have been categorized into key issues as follows: Economic Viability, Processing and Infrastructure, Education and Regulatory Framework. Although the Hornby/Denman Growers and Producers Alliance (HDGPA) has created various new marketing opportunities for locally farmed products, there are still concerns that there is an inadequate number of locations and markets where farmers can sell their products, which limits their exposure to the local population and consumer base. Many farmers also feel that the cost of the ferries make it challenging to purchase important inputs and supplies from off Denman Island. Furthermore, even though some efforts have been made to fill gaps in farm infrastructure on Denman Island, farmers still feel severely limited in both processing and storage facilities. Currently, farmers often need to send their products off of Denman Island for processing and sale, which can be both cost prohibitive and time consuming.

It was suggested that more educational opportunities for both consumers and farmers on Denman Island are needed through workshops, community school programs, and extension opportunities. Finally, farming in Canada is governed by several levels of government and associated municipal, provincial and federal government policies. Due to their interrelationships, these regulations can be complex and overwhelming and many community members are unclear on how and what regulations affect agriculture in their region. Concerns such as non-farm use of agricultural land, farm worker housing and provincial health regulations were highlighted as key issues and areas of opportunity for enhancing farming on Denman Island.

A total of 14 recommendations and associated actions have been put forth to help address these concerns:

- 1. Enhance cooperation amongst farmers for marketing**
- 2. Consider agritourism initiatives**
- 3. Make farm products more accessible to the Denman Island Community**
- 4. Lobby BC Ferries to support farmers**
- 5. Establish facilities to support processing and storage of farm products**
- 6. Increase the availability of farming-related workshops and courses**
- 7. Develop and support farm to school programming**
- 8. Educate and support new and current farmers**
- 9. Promote the active use of farmland**
- 10. Establish an Agricultural Advisory Planning Commission**
- 11. Undertake a review of farm worker housing and agritourism accommodation**
- 12. Hire an Agricultural Economic Support Officer**
- 13. Implement zoning updates through the Land Use Bylaw**
- 14. Amend the Official Community Plan**

In order to tackle these 14 recommendations, an implementation strategy has been developed with suggestions for key players, timeframes, priority levels, funding requirements and potential funding sources. It has been suggested that an Implementation Body be created to ensure the Farm Plan is effectively implemented, evaluated and monitored on an ongoing basis. A series of short and long term indicators have also been identified with measurable indicators of success.

Farming is much more than a sector or industry on Denman Island; it is a way of life for some, and the growing and consumption of local food and farm products represents strongly-held values and beliefs. As such, much of the feedback received in the consultation with the community, and the Steering Committee's deliberations over draft versions of this Farm Plan, revolved around some high-level principles to do with such things as Genetically Modified Organisms (GMOs) and international trade agreements introducing competition for local food and farm products. As an overarching recommendation of this plan the Islands Trust is urged to take advantage of the opportunity to play a key role in Canadian and international agricultural policy and act as an advocate for the farming community in the Gulf Islands.

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Courtney Simpson – Islands Trust Planner
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This Farm Plan is a collaboration of the Denman Island farming community, local citizens, the BC Ministry of Agriculture, the Comox Valley Regional District and the Islands Trust. AEL Agroecological Consulting prepared the Denman Island Farm Plan under direction of the Steering Committee and the Islands Trust in collaboration with Lone Smith of Upland Consulting, Derek Masselink of Masselink Environmental Design and Taina Uitto. AEL Agroecological Consulting would like to particularly thank Courtney Simpson, Islands Trust Planner, for her support and contribution to the Farm Plan.

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INTRODUCTION

With increasing concerns regarding climate change and agricultural sustainability, the need to develop food security and sovereignty has become vital for island communities. The creation of a *Farm Plan* for Denman Island was one option to help adapt to both the biophysical changes and the socio-economic needs of the community and determine recommendations for enhancing and preserving farming on the island.

Denman Island is within the Islands Trust Area and home to just over 1,000 full-time residents. Currently, 46% (approx. 2,300 ha) of Denman Island is in the Agricultural Land Reserve (ALR), second only to Salt Spring Island at 2,921 ha, although a significant portion is allocated to parkland. Farming on Denman Island is characterized by diverse small-scale production. Many of the historic farms still remain and bartering of local agricultural products is a fairly common practice. Aquaculture, while not the focus of this *Farm Plan*, is an important component of local food security in the Local Trust Committee Area.

As part of the Islands Trust Council 2008-11 Strategic Plan, supporting the completion of a Denman Island Farm Plan was identified as a strategy under the objective “to support socio-economic diversity of island communities”. The Denman Island Local Trust Committee (LTC) took on the creation of the Farm Plan as a work plan top priority and formed the Agriculture Plan Steering Committee (APSC) to guide the process.

In January 2011 a *Denman Island Agriculture Strategy* was completed to lay the groundwork for the subsequent *Farm Plan* and provide background information to inform the Plan. A recommendation to pursue a full agricultural survey was put forth in the *Strategy* to gain a better understanding of the farm enterprises on Denman Island and, in 2011, a Summer Survey was completed entitled *Food and Farming on Denman Island: Consumer and Producer Perspectives*. This in-depth report compiled data from 40 Denman Island producers and a variety of residents to establish a comprehensive profile of agriculture in the region.

To direct the focus of the *Denman Island Farm Plan* a series of objectives were endorsed by the LTC and Steering Committee as follows:

- To gather more information from the community about farm products, methods and consumption in order to increase understanding of the current situation and establish a baseline for measuring success of the Farm Plan over time;
- To identify short-term, easily achievable goals for enhancing farming on Denman Island;
- To identify medium and long-term goals for enhancing farming on Denman Island;
- To develop an implementation plan to achieve these goals;
- To develop measurable indicators of success in achieving these goals;
- To identify existing initiatives and successes that represent strengths of the farming community;
- To engage local producers and businesses, the community and policymakers in identifying goals for enhancing farming; and
- To share information about the process of developing the Farm Plan and the Farm Plan itself once complete, with local producers and businesses, the community and policymakers.

The effective engagement of the community was seen as critical to achieving these objectives. A Community Forum and a series of Focus Group Sessions were offered for residents and producers to put forth challenges and opportunities facing farming on Denman Island. The feedback received at these events was used to develop recommendations for local

*“I am thankful that people
farm here.”*

government, farmers, residents and community groups on Denman Island. An implementation plan to address the key issues was then created and tied to indicators that could be effectively monitored to evaluate the impact of the plan over time. In addition, potential funding sources were identified for each action item to help create a smooth transition between preparation of the *Farm Plan* and implementation. The APSC has been an integral part of the iterative process of formulating the Farm Plan and feedback from the committee has been instrumental in developing a community driven process.

Denman Island is characterized by a diversity of environments and people with a strong desire to live sustainably. There is immense pride in the quiet, rural environment and the numerous parks and conservation areas spread throughout the island. Farming is valued as part of the foundation of the community, but not valued above all else. In the community’s pursuit of sustainability; farming cannot be a sustainable activity if it cannot support the farmers financially. But farming has to somehow be economically viable without sacrificing the other values of the community. Since farming and conservation are not mutually exclusive, farming has to be part of the transition to sustainability and, as such, must fit within the current and future fabric of Denman Island, not expand and grow in spite of it. By fitting within the social, environmental and philosophical fabric of Denman Island, farming will become supported by all aspects of the community and become integrated.



View West towards Baynes Sound from Westisle Farm

VISION AND GUIDING PRINCIPLES

The Agriculture Plan Steering Committee is comprised of representatives from the farming and agriculture community including; the Denman Island Local Trust Committee, the Comox Valley Regional District Board of Directors and the Ministry of Agriculture. The Steering Committee has been meeting regularly since January 2010 and oversaw the development of the Denman Island Agriculture Strategy (2011) and the 2011 Summer Survey. Vision and purpose statements were crafted as part of their work and are as follows:

Vision Statement: “An Island where we feed each other abundantly because farming is a viable and valued foundation of our sustainable community.”

Purpose Statement: To protect and encourage agriculture within the context of Denman Island and to create guiding principles for the Denman Island Local Trust Committee to use in making policies and bylaws through:

- Studying/recommending resolutions for areas of regulatory conflict
- Educating
- Exploring alliances
- Researching and promoting agricultural facilities
- Strengthening food security
- Maximizing agricultural land security
- Recognizing/supporting the local, small-scale, and diverse nature of Denman Island agriculture
- Engaging the community
- Working with/providing input to other levels of government
- Encouraging youth engagement in farming
- Recognizing the importance of healthy ecosystems and their interrelationships with farming
- Considering /supporting local agroforestry and its best practices

These vision and purpose statements were used to guide the planning process. Community members were asked to provide feedback on this vision during the public consultation, which resulted in general agreement and support.

DEFINITIONS

A conscious decision was made to use the term *Farming* in this plan, as opposed to the term *Agriculture*. The Steering Committee developed high-level definitions for the terms and found the term *Farming* to be more appropriate. *Farming* brought about ideas of growing food and farm products and raising livestock, and was more inclusive and historic. The Steering Committee also discussed the idea that *Farming* is a verb and an action, while *Agriculture* is a noun and passive.

Discussion also occurred around the term *Sustainability*. It was defined as a closed loop or a circle/continuum that supports itself. Sustainability also encompasses food security and sovereignty and is capable of being maintained indefinitely.

For the purposes of this *Farm Plan*, the Steering Committee also felt that it was important to define the term *Agritourism* for use in a Denman Island context. Agritourism can generally be defined as “any land based farm or business that is open to the public” and can also be defined as “the practice of touring agricultural areas to see farms and often to participate in farm activities” (Agritourism World, 2012). Denman Island Agritourism is meant to occur on a small scale with activities such as Slow Food Cycle Tours and farm or market stands as more appropriate than large-scale options such as amusement parks.

The term *Producer* is also used extensively throughout this *Farm Plan*. As noted in the Summer Survey (2011), producers have not been distinguished from “home gardeners” and the definition remains broad. Some producers may be actively marketing or bartering their products, while others are not.



Aquaculture Production in Baynes Sound

Aquaculture can be defined as the farming of aquatic organisms such as fish, shellfish, crustaceans, molluscs and aquatic plants. Although aquaculture plays a large role in food security in the Local Trust Committee Area, it is not a focus of this *Farm Plan* due to the limited scope for the project outlined by the main funding sources and budget constraints experienced by Islands Trust. Additionally, concerns were expressed that discussion about the impacts of the aquaculture industry could overshadow the process of creating a *Farm Plan* and take away resources from key land-based farming issues. It was decided that these issues need to be resolved before aquaculture can be included and addressed in a future farm plan, but that it should be a focus in future planning efforts. Islands Trust Policy Statement 4.5.2 states that “finfish farms should not be located in the marine waters of the Trust Area” (Islands Trust, 2004); however there may be a place for land based aquaculture on Denman Island that fits within the vision of a sustainable community.

Conventional forestry practices and managed forest lands are not included in the scope of this farm plan, but agroforestry is recognized and encouraged as a new and emerging farming practice. Agroforestry is an integrated farming system that entails growing trees in combination with crops, forage and livestock to enhance yields, reduce soil losses, conserve soil moisture, recycle nutrients and reduce the environmental impacts of farming operations (AAFC, 2012).



PART 1 -

BACKGROUND INFORMATION

In 2011 an *Agriculture Strategy* was completed to provide a snapshot of farming on Denman Island. The following is a summary of some of the information that was captured during the Strategy and provides context for the *Farm Plan*.

Geography and Climate

Soils of Denman Island

Water

Climate Change

Governance

Agricultural History

Demographic Information

Agricultural Profile

Public Engagement

GEOGRAPHY AND CLIMATE

Denman Island is one of BC's northern Gulf Islands, located between the mid-island communities of Comox and Parksville in the Strait of Georgia and separated from Vancouver Island by Baynes Sound. The island is relatively small (19 km long, 5 km wide, 51.5 km² in area) and is similar in size and shape to the island of Manhattan (VIHA, 2010).

Sheltered from the more dramatic meteorological extremes on Vancouver Island's west coast, Denman Island enjoys mild and largely dry weather in spring, summer and fall. In part because of this forgiving climate, farming occurs extensively on most parts of Denman Island, including some parcels of land that are located outside of the ALR. Additional geographical and climate information can be found in the *Denman Island Agriculture Strategy* (2011).



Topographical Depiction of Denman Island

SOILS OF DENMAN ISLAND

The majority of soils on Denman Island are classified as Brown Podzols and Grey Gleysols (see Appendix B). Much of the western part of Denman Island is covered by a dense forest dominated by Douglas-fir, western hemlock and western red cedar on deep gravelly loam glacial till. Some areas have shallow soils over sandstone or shale. The eastern part of the island is characterized by loamy sand on which Arbutus is frequently present.

The most productive soil series on Denman Island are, from an agricultural perspective, Bowser, Merville, Parksville, Royston, and Tolmie soils (see Appendix B for details). The main agricultural limitations are stoniness, steep slopes in some areas, and moisture deficiencies and/or excess water. The majority of soils on Denman Island are classified as moderately constrained to agriculture due to these limitations; however, many of the soils can be greatly improved. A large proportion of the best agricultural soils are on the west side of the island fronting Baynes sound. The distribution of soils on the island is highly variable, therefore individual landowners should look to agricultural capability mapping as reference only and are encouraged to have their soils tested for site-specific analysis.

WATER



One of the Many Wetlands on Denman Island

A 2009 study of drainage areas prepared for the Islands Trust found 18 individual watersheds on Denman Island, five of which are known to be fish-bearing (Islands Trust, 2009). The largest water bodies are Chickadee Lake at the north end and Graham Lake in the south central region.

Denman Island's topography, which consists of a series of ridges that run lengthwise along the Northwest – Southeast axis, has created several wetland areas, particularly in the southeast. Pioneering and recent farmers established drainage ditches in some of these natural wetlands to create productive farming areas for seasonal crops. These modified wetlands are termed "Seasonally Flooded Agricultural Fields" (SFAFs), meaning that they have been cultivated in the recent past, or still are, and are underwater for a portion of the year. SFAFs are an ecosystem category in the Provincial Sensitive Ecosystem Inventory (SEI) and may have been natural wetlands at one time. They provide wildlife habitat for many species including migratory birds, and many are located within the

ALR. On Denman Island all streams, lakes and wetlands, including SFAFs are within a development permit area for

protection of the natural environment, however agricultural activity that is both within a SFAF and in the ALR is exempt from requiring a permit.

In 1976, S.C. Preston noted in his report entitled *Agricultural Resources and Potentials of the British Columbia Gulf Islands* that water shortage was the main limitation to agricultural production and expansion of farming in the region. Methods of minimizing summer water droughts were suggested, such as the creation of dug outs, dams and cisterns and the use of cultivation and farm practices to minimize water loss. The 2011 Summer Survey revealed that water shortage remains a concern for some farmers on Denman Island (Uitto, 2011). The following information was captured during this survey:

- 78% of producers irrigate their crops.
- The estimated usage per season varied greatly depending on farm type and location.
- Average water use was estimated at 164,199 L (43,377 gallons) per season per farm.
- 26% of those that irrigate reported experiencing water shortages.

Some producers reported in the Summer Survey that they experience both a shortage and an abundance of water for irrigation, depending on farm location and time of year. Some producers also expressed that they never experience a shortage of water, while other producers suffer from water shortages at certain times of the year. The survey revealed that farms reporting water shortages had no apparent geographic grouping; thereby eliminating the ability to determine if one area of the island experiences a water shortage compared to any other

area. Water catchment options such as cisterns, ponding, and dug outs may be necessary in certain areas of the island. New farmers are urged to talk to their neighbours to discuss water usage and storage options. Water conservation technologies such as drip irrigation and the use of drought tolerant varieties may help alleviate some of the water shortage concerns in some areas. As climate change continues, water storage may become a necessary part of a water system. The BC Government is working on a modernization of the current Water Act. The four goals of the Water Act Modernization are to:

- Protect stream health and aquatic environments
- Improve water governance arrangements
- Introduce more flexibility and efficiency in the water allocation system
- Regulate ground water use in priority areas and for large withdrawals

More information on the Water Act Modernization can be found at <http://www.livingwatersmart.ca/water-act/>.

CLIMATE CHANGE

The existence of climate change has become a widely accepted phenomenon and one that could dramatically affect farmers in small island communities. While farmers are accustomed to adapting to weather conditions, climate change will require a more systematic approach. The vision statement put forth in the Denman Island Official Community Plan states “We accept the challenge of adapting to climate change and will alter our lifestyles to live more lightly on the land”. This implies a proactive approach to altering production practices to adapt to changing climate patterns. Some general patterns are anticipated in North America, such as a warming of 1-3°C between 2010 and 2039 and an increase in warmer winters and hotter, drier summers. The following changes are also anticipated in the Vancouver Island and Gulf Islands region:

- Increasing climate variation and more extreme weather events with an increase in the associated damage costs (NRC, 2007);
- By 2050 summer precipitation on Vancouver Island is expected to decrease by approximately 10% along the southeastern coast (Rodenhuis et al., 2007);
- Warming by 2–7°C by 2080 – impacting sea levels, precipitation patterns and ecosystems;
- Increasing frequency and severity of wildfires (NRC, 2007);
- Increasing frequency and severity of pest, disease and invasive plant outbreaks (NRC, 2007);
- Increasing irrigation needs (Zebarth et al, 1997; Neilsen et al., 2004);
- Sea-level rise may result in saltwater intrusion into freshwater aquifers, affecting the quality and quantity of irrigation water supplies (Liteanu, 2003; Allen, 2004).

Effects on individual microclimates are not yet known, but water shortage may become an increasing concern. Efforts should be made to mitigate and adapt to extreme weather events through proper planning and community consultation.

During the public consultation process it was also mentioned that there was an urgency to reduce greenhouse gas emissions in the region and that stock-free farming and livestock-free food production is one way to achieve this. Stock-free farming avoids the use of domestic animals and animal by-product inputs in food production. “Eating

lower on the food chain” can be a significant contributor to reduced greenhouse gas emissions and one of the many options for mitigating the impacts of climate change.

GOVERNANCE

Both Denman and neighbouring Hornby Island are part of a group of 13 major islands and more than 450 smaller islands administered by the Islands Trust. There are two local trustees elected for each group of islands designated as a local trust area or island municipality. Together, with an appointed chair from the Executive Committee, local trustees are responsible for land use decisions within their respective local trust area, excluding First Nation reserves. The Islands Trust Area is comprised of 12 local trust areas and one island municipality. Each local trust committee has land use jurisdiction over a major island, plus smaller islands and surrounding waters. The Islands Trust "plans land use and regulates development in the Trust Area with a unique mandate to preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the Trust Area and the province in cooperation with the Provincial government, municipalities, regional districts, improvement districts, other persons and organizations" (Islands Trust, 2008). The Denman Island Local Trust Committee (LTC) is responsible for land use decisions within the Denman Island Local Trust Area.

Denman Island is also located within Electoral Area A of the Comox Valley Regional District (CVRD), which "is a federation of three electoral areas and three municipalities providing sustainable services for residents and visitors to the area" (CVRD, 2010). Regional districts provide a government for unincorporated (rural) areas, a forum for inter-municipal cooperation and an organization upon which provincial mandates can be imposed. The CVRD encompasses an area just over 1,725 square kilometres (666 square miles) and serves a population of 48,824 according to the 2006 Census. On Denman Island the CVRD has jurisdiction over parks and economic development.

AGRICULTURAL HISTORY

The Coast Salish, the region's first people, first visited Denman Island at least 5,000 years ago by canoe to find food, specifically fish, oysters, clams and roots (Tourism BC, 2010). The Pentlatch band of the Coast Salish maintained a summer village at Henry Bay near Denman's northern tip while spending their winters along the Puntledge River near Comox. As with many of the other Gulf Islands, traces of their presence can be found in middens, petroglyphs and earthworks in areas such as the Chrome Island Light House on the island's southern shore, and at Longbeak Point on the narrow northern tip of the island. Shell midden beaches are evidence of their continual presence. The Pentlatch were devastated by smallpox and other



Coast Salish Canoe source: University of Washington

diseases brought by the Europeans in the late 1700s and early 1800s. Today the K'ómoks First Nation has territorial claims over the wider region, including Denman Island (Denman Island OCP, 2008). Some of the First Nations Peoples cultivated "Indian Consumption Plant" (*Lomatium newdicaule*), which was used for treating colds, sore throats, and consumption (tuberculosis) (Turner, 2005). The seeds were collected and distributed to larger areas to ensure a consistent supply for future years. Some First Nations people still visit Denman Island to continue this practice.

European settlers to Denman Island made their home on the island in the late 1800s. Farming was the mainstay occupation for most islanders and was characterized by small-scale, diverse operations. Many of the historic farms still remain and a few of the descendants of these early settlers still live and farm on the island today. A detailed account of the first farming families and associated operations is provided in the *Denman Island Agriculture Strategy* (2011).

As the logging industry experienced a boom in the mid-1900s and became highly profitable, the farming industry experienced significant difficulties such as: obtaining development capital, a shortage of irrigation water in the summer, high land prices, high production costs, transportation costs, lack of extension services and the aging farm population (Preston, 1976). Many of these challenges still exist today.

DEMOGRAPHIC INFORMATION

Denman Island is home to just over 1,000 full time residents and amenities including: one general store (containing the gas station, propane sales, post office and government liquor store), hardware store, bookstore, craft stores, two bistros, commercial offices, medical clinic, a fitness gym, a video store, two real estate offices, the Seniors Activity centre, a community hall, a library, a community school, arts centre and a museum. The population growth rate for Denman Island has been lower than for the Trust Area and the Province as a whole (Islands Trust, 2008a). The Denman Island *Official Community Plan* (OCP) indicates that the population increased by only 4.5% from 1996 to 2006, while the Trust Area's growth rate was 13.9%. The population on Denman Island also declined from 1,095 to 1,022 from 2006 to 2011, resulting in a -6.7% change, according to the Statistics Canada.

In order to meet the Islands Trust mandate of preserving and protecting the "area and its environment for the benefit of residents and the province" the Local Trust Committee has set a density cap in the OCP for a population of slightly over 2,000 people upon final build out with current zoning regulations in place (Islands Trust, 2008). This is important when considering farming activities that can be supported in this community. Islanders have expressed their goals that the community remain closely knit within the environmental carrying capacity of the island. This limit on population growth may impact the level of commercial scale farming operations, as well as the growth of current farm activities such as processing and marketing of products. Much of the public consultation discussion occurring throughout the production of this *Farm Plan* focused on an appropriate scale for farming on Denman Island.

The age distribution on Denman Island is also interesting to note (Table 1). Between 2001 and 2006, the population aged 60 and over increased by the same margin as the decline in the population aged 20 to 39 at 2.9% (Islands Trust 2008). This trend is similar on other Gulf Islands and is expected to continue as these islands attract seniors looking for a rural lifestyle to retire in.

TABLE 1. AGE DISTRIBUTION ON DENMAN ISLAND (STATISTICS CANADA, 2001, 2006 & 2011)

Age	Denman Island (% in each age class)			Gulf Islands	British Columbia	
	2001	2006	2011	2006	2006	2011
0-19	19.2	19.2	10.9	17.3	23.2	22.0
20-39	14.8	11.9	11.9	14.2	25.8	26.0
40-59	37.9	37.9	33.8	36.9	31.3	31.0
60 and over	28.1	31.0	43.3	31.6	19.7	21.0

Currently, Statistics Canada Agricultural Census data indicates that in 2006 there were 40 farm operators on Denman Island with an average age of 58.2 years. 15 of these farm operators reported that their farms were operated by one individual, while 25 of the farm operators reported two or more people operating the farm. The age distribution indicated in the Census reflected the age distribution noted above. The majority of farm operators (62.5%) reported their age as over 55, while no farm operators were under the age of 35 (Table 2). These figures are similar to the provincial data, with a slightly larger percentage of farm operators falling within the “Over 55” category on Denman Island. This is consistent with the population data by age distribution reported above.

TABLE 2. NUMBER OF FARM OPERATORS IN EACH AGE RANGE (STATISTICS CANADA, 2006)

Age Range (in years)	Denman Island (2006)		British Columbia (2006)	
	Number of farm operators	Percentage	Number of farm operators	Percentage
Under 35	0	0%	1770	5.9%
Between 35 and 54	15	37.5%	14555	48.7%
Over 55	25	62.5%	13540	45.3%

Of the farm operators included in the Census, 25 (62.5%) were male while 15 (37.5%) were female. This is similar to the data reported for BC farm operators. A total of 64.7% of BC farm operators were male, while 36.5% were female.

AGRICULTURAL PROFILE



Apples in Season at East Cider Orchard

During the development of the *Agriculture Strategy* in 2011 a preliminary Agricultural Profile was completed utilizing the 2006 Census of Agriculture data from Statistics Canada. A further analysis of farming on Denman Island was completed in 2011 with the Summer Survey entitled *Food and Farming on Denman Island: Consumer and Producer Perspectives* (Uitto, 2011). The following pages are a compilation of both of these reports and help to create a snap shot of farming on Denman Island. While the type and scale of farming varies on Denman Island, the term farmer and producer includes anyone who identified themselves as such in the Census of Agriculture and the Summer

Survey. The definition is broad and may contain “home gardeners” and farmers not producing on a commercial scale.

In 2010, an Agricultural Land Use Inventory (LUI) was performed to determine both the current qualitative and quantitative characteristics of farmland on Denman Island, using methodology as outlined in Runka (1973). A windshield survey was performed over the course of two days during the month of August using orthophoto and cadastral maps for baseline data. A spreadsheet of information was compiled including data referring to address, farm name, livestock viewed, crops grown, farm gate sales, potential geophysical constraints and any home-based businesses noted. Each farm on the island was visited, with particular attention given to operations located within the ALR (Agriculture), Resource and Rural Residential zones.

The LUI data was used to develop Geographic Information System (GIS) maps by the Islands Trust and provide a more accurate picture of farming on Denman Island than what was reported in the Census of Agriculture. These maps provide an indication of the distribution of farms and farming activities on Denman Island for zoning and land use planning purposes. Information captured by Uitto (2011) was also entered into the GIS database to provide an accurate snap shot of farming on Denman Island (see Appendix D).

NUMBER OF FARMS

Statistics Canada, using the Census of Agriculture, attempts to develop an accurate picture of agriculture in Canada. They define an agricultural operation as a farm, ranch or other operation that produces agricultural products intended for sale. There is no recommended scale of farm suggested for reporting purposes and “hobby farms” or farms with very low revenues can be included in the Census.

It was discovered that the number of Census farms on Denman Island increased from 1996 to 2006 (Figure 1). In 1996 there were a total of 18 Census farms on the island and in 2006 there were 28 Census farms (Statistics Canada, 1996, 2001, 2006).

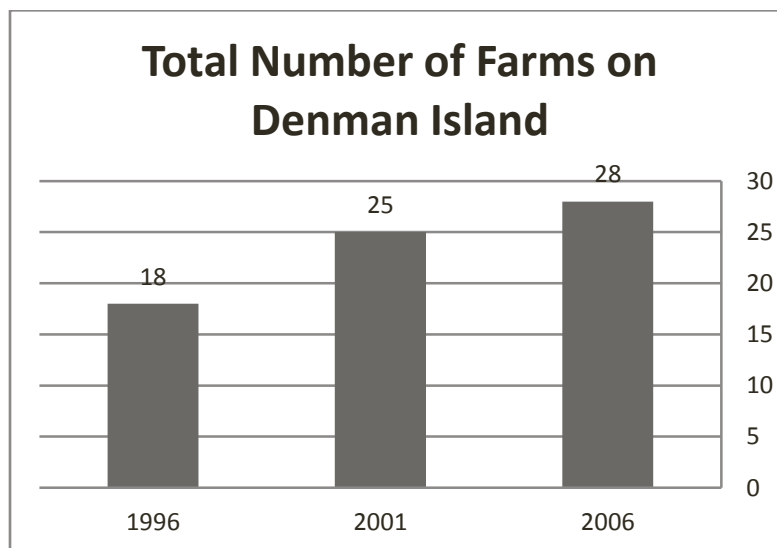


FIGURE 1. TOTAL NUMBER OF FARMS ON DENMAN ISLAND (STATISTICS CANADA, 1996, 2001 & 2006)

During the development of the Summer Survey, participants were self-identified as farmers and may not have been part of the larger Census of Agriculture. Therefore, a total of 99 properties practicing some form of farming on Denman Island in 2011 were captured during the Summer Survey (Uitto, 2011), identified through the *Agriculture Strategy*, the Local Food Directory and word of mouth. This is far more than the 28 Census farms captured above and indicates a much higher level of farming and food production on Denman Island.

FARM AREA

Denman Island is fortunate to contain a substantial amount of land within the ALR. A total of 2,300 hectares (ha) (5,683 acres) of agricultural land can be found on the Island, but only 428 ha (1,057 acres) is actively farmed, according to the 2006 Census (Table 3). Not all of this active farm land can be found within the ALR, but much of the production is concentrated there.

TABLE 3. FARM AREA (HA) ON DENMAN ISLAND (STATISTICS CANADA, 2006)

	Area (ha)	Area (acres)
Total ALR	2300	5683
Total area actively farmed	428	1057
Land in crops	151	373
Tame or seeded pasture	59	146
Natural land for pasture	60	148
Woodlands and wetlands	118	292
All other land (including Christmas trees)	40	99

In 2011, the total combined area in production within and outside of the ALR was estimated to be much lower at 236 ha (583 acres) (Uitto, 2011). The limited amount of farm land in active production could be due to a number of factors. The majority of land within the ALR is underutilized and not currently being farmed. Also, approximately 20% of the ALR land (501 ha (1,238 acres) out of 2,300 ha (5,683 acres)) is designated as park, Trust Fund, and conservancy lands and in these areas agricultural production is either limited or not allowed. This indicates that there is much room to grow and agricultural production could be expanded far beyond its current level.

Operators participating in the 2006 Census reported the majority of their farms between 4 to 28 hectares (10 and 69 acres) (Figure 2). A total of 17 farms were between 4 to 28 hectares (10 to 69 acres) and no farms were reported to be over 72 hectares (179 acres).

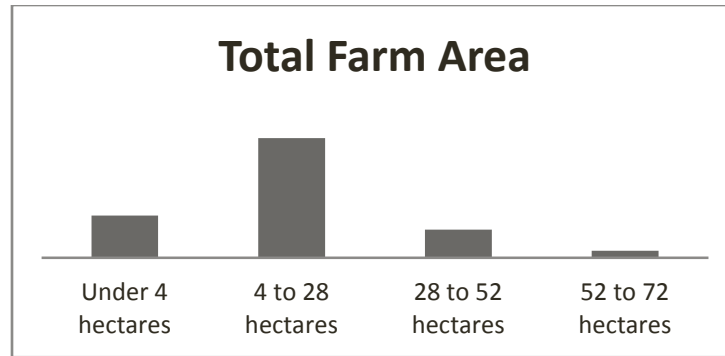


FIGURE 2. TOTAL FARM AREA ON DENMAN ISLAND (STATISTICS CANADA, 2006)

In 2011, producers reported farm sizes ranging from 0.1 ha (0.25 acres) to 59 ha (145 acres) (Uitto, 2011), which is consistent with the 2006 Census data. Producers reported an average farm size of 6 ha (14.8 acres) in 2011 (Uitto, 2011). This is much lower than the average farm size on Vancouver Island and in BC (Table 4).

TABLE 4. AVERAGE FARM SIZE IN HECTARES (STATISTICS CANADA)

	1986	1991	1996	2001	2006
Vancouver Island	23.8	22.8	19.1	21.6	18.1
British Columbia	126.5	124.4	115.8	127.5	142.9

FARM ENTERPRISES

As with the number of farms on Denman Island, there was a discrepancy between the distribution of farm enterprises reported in the 2006 Census and the 2011 Summer Survey. Many of the farmers that participated in the 2011 Summer Survey may not have taken part in the Census of Agriculture. Table 5 provides a comparison of farm enterprises by industry group for both data sets.

TABLE 5. FARM ENTERPRISE DATA (LUI/SURVEY DATA VS. CENSUS OF AGRICULTURE DATA) (UITTO, 2011; STATISTICS CANADA, 2006)

Enterprise Type	Land Use Inventory and Survey Data (2011)		Census of Agriculture Data (2006)	
	Number of Farms	Percentage	Number of Farms	Percentage
Cattle farming	16	16%	9	32%
Hog and pig farming	3	3%	2	7%
Poultry and egg production	35	35%	16	57%
Sheep and goat farming	15	15%	6	21%
Horses and ponies	16	16%	5	18%
Honeybee production	2	2%	3	11%
Llama and alpaca production	1	1%	1	4%
Tame hay and fodder production	45	45%	12	43%
Oilseed and grain farming	4	4%	2	7%

Vegetable farming	50	50%	9	32%
Fruit, berry and nut farming	61	62%	9	32%
Greenhouse, nursery and floriculture production	7	7%	6	21%
Total number of farms	99	100%	28	100%

Note: These figures are based on total farms reporting in each category, so there may be overlap in the numbers. For example, the same farm may have reported poultry production and cattle production so the number of farms in each category may be duplicated. Percentage is calculated by the total number of farms (i.e. 16 cattle farms out of 99 total farms = 16%)

The most common enterprise on Denman Island, according to the 2006 Census, was poultry and egg production at 57% with tame hay (hay cut from cultivated grasses) and fodder (feed for domesticated livestock) production as the second most common at 43% of the total categories.

Cattle farming, fruit, berry and nut production and vegetable production were the next most common category at 32% each, with greenhouse, nursery, floriculture and sheep and goat production following at 21%. A total of 4 farms reported greenhouses on the property covering 679 m² (7304 ft²) of land. Four farms also reported having an area of their farm under glass, plastic or other protection at 1083 m² (11660 ft²). The categories with the lowest level of production were oilseed and grains, hog and pig production, honeybees and llamas and alpacas.

The percentage in each crop and livestock category presented in the LUI and Survey data differs from the Census of Agriculture. The highest level of production reported here was in the fruit, berry and nut category at 62% with vegetable production following at 50%. Poultry and tame hay and fodder production were still significant at 35% and 45%, respectively.

FARM PROFITABILITY

Interestingly, 58% of producers have reported an increase in production over the past five years, while only 8% have reported a decrease or a downsizing in production (Uitto, 2011). However, while farmers may be reporting an increase in production, the financial records being reported to Statistics Canada indicated losses from 1996-2006 (Table 6).

TABLE 6. GROSS MARGIN OF FARM OPERATIONS ON DENMAN ISLAND (STATISTICS CANADA, 2006).

Gross Farm Receipts (\$)			Total Operating Expenses (\$)			Gross Margin (%)		
1996	2001	2006	1996	2001	2006	1996	2001	2006
\$ 225,339	\$ 194,654	\$ 205,825	\$ 278,307	\$ 297,871	\$ 333,421	-24%	-53%	-62%

Gross margin is calculated as gross receipts minus operating expenses, which are the expenses directly related to production. This figure indicates that farm profitability has decreased since 1996. In 2006 the gross margin was -62%, which means that, on average, for every extra dollar of sales generated on farms, the farmer is losing 62 cents. This extra 62 cents would be used to cover overhead costs of production, but are being lost due to the high cost of inputs (soil amendments, pesticides, feed, supplements, etc.), veterinary expenses, machinery and equipment repairs and purchases or transportation expenses (fuel, ferry costs, etc.). On Denman Island the majority of expenses that cause a financial burden to farmers are transportation related, as it can be costly to bring inputs and transport livestock onto and off the island. Also, Denman Island farmers are not able to take advantage

of economies of scale unlike farmers who operate large farms on the mainland of BC. These farmers can get reduced rates on many inputs since they need to purchase large quantities, contrary to farmers on Denman Island.

It is important to note that this is an average for the island, based on the 28 farms reporting in the Census of Agriculture. During the 2011 Summer Survey (Uitto, 2011), an attempt was made to capture the value of production by sales and bartering (Figure 3). This figure provides an indication of the disparity of income per farm, which ranges from \$0 to over \$10,000.

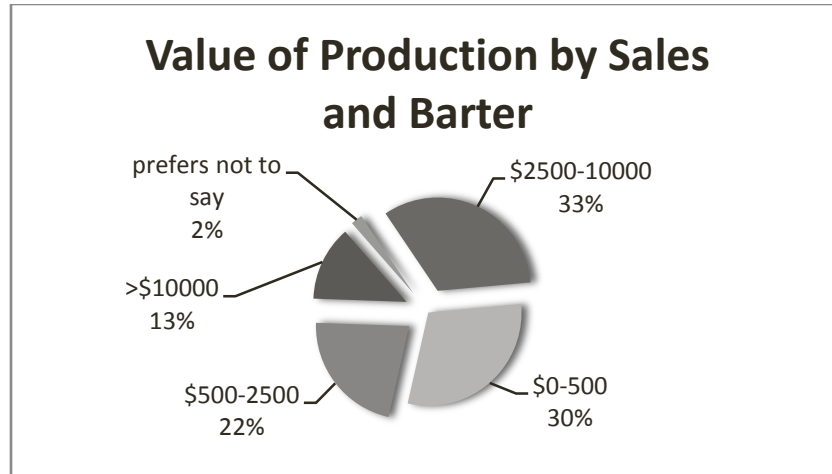


FIGURE 3. VALUE OF PRODUCTION BY SALES AND BARTER (UITTO, 2011)

Table 7 indicates the average revenue per farm on an annual basis, based on gross farm receipts reported in the Census of Agriculture. These figures indicate that farm profitability and revenue have been decreasing since 1996 and are similar to the average value of production mentioned above.

TABLE 7. REVENUE PER FARM ON DENMAN ISLAND (STATISTICS CANADA, 1996, 2001 & 2006)

Year	# of Farms	Gross Receipts (\$)	Average per Farm (\$)
1996	18	\$ 225,339	\$ 12,519
2001	25	\$ 194,654	\$ 7,786
2006	28	\$ 205,825	\$ 7,351

Another important consideration is that in order to minimize the income tax paid by farm operators, wages paid to the farm family are considered off-farm income and generally not reported in net farm income. Therefore, the figures presented may be lower than the actual revenue experienced on farms. Additionally, many farm operators maintain work off the farm, which contributes to total household income. Farm profits are often not a motivating factor for Denman Island farmers, but increased economic viability is important for maintaining a sustainable food system, especially when the objective is to attract and retain young and emerging farmers who wish to be able to earn a living wage.

To provide a comparison with other Gulf Islands, average revenue per farm has been calculated based on 2006 Census of Agriculture data (Table 8).

TABLE 8. REVENUE PER FARM ON BC'S GULF ISLANDS (STATISTICS CANADA, 2006)

Gulf Island	# of Farms	Gross Receipts (\$)	Average per Farm (\$)
Bowen	21	\$ 137,583	\$ 6,552
Galiano	19	\$ 135,258	\$ 7,119
Denman	28	\$ 205,825	\$ 7,351
North and South Pender	39	\$ 503,848	\$ 12,919
Mayne	22	\$ 286,689	\$ 13,031
Other Islands	30	\$ 397,474	\$ 13,249
Hornby	25	\$ 533,948	\$ 21,358
Salt Spring	170	\$ 4,060,287	\$ 23, 520
Gabriola	46	\$ 1,200,370	\$ 26,095

Interestingly, despite the number of farms on Denman Island falling within the mid-range for the islands, the revenue per farm is much lower than the majority of the other island communities. Farmers on Denman Island may have higher off-farm incomes than in other island communities, decreasing the need to generate high farm revenues. Additionally, there are fewer large-scale, highly profitable farms on Denman Island such as wineries and large poultry operations than on other Gulf Islands. For example, Hornby Island is home to several vineyards, which are strong contributors to the gross farm receipts of the island.

PUBLIC ENGAGEMENT

In order for a farm plan to be effective it should have strong community support and reflect the needs and desires of the community. The objectives of the farm planning public engagement process were as follows:

- Develop and refine a Vision for Agriculture on Denman Island;
- Engage a wide variety of members of the food and farming community: farmers, gardeners, restaurateurs, chefs, stores, schools and more;
- Organize a Community Forum to engage citizens on Denman Island;
- Conduct Focus Group Sessions with key stakeholders on specific local food issues; and
- Engage Denman Island residents in meaningful conversations related to farm planning.

“We need more places like community kitchens, food dehydrators, a more permanent market, and a community garden.”

During the development of the *Denman Island Agriculture Strategy* (Islands Trust, 2011) a series of phone and face-to-face interviews were conducted. Additionally, written surveys were created for farmers and non-farmers. The 2011 Summer Survey (Uitto, 2011) expanded upon this with a greater number of respondents.

To gain further feedback, a Community Forum and a series of focus group sessions were offered in November 2011. The Community Forum was held in the evening on Friday, November 4th, 2011 at the Denman Island Community Hall. The consultant team developed a set of questions to guide the discussion and generate innovative ideas around farming on Denman Island.

The input gathered during the discussion was then used for the focus group sessions the following day. The participants were selected to represent the farming community and the following groups: (1) produce growers; (2) orchardists and honey producers; (3) meat and egg producers; and (4) local businesses that purchase food and farm products. The feedback received at the Community Forum helped to generate key issues facing the farming community on Denman Island and recommendations for actions. A public consultation report was developed to synthesize the input gathered during the Community Forum and focus group sessions and is publicly available on the Denman Island Local Trust Committee website.



PART 2 –

KEY ISSUES AND RECOMMENDATIONS

Through the development of the *Denman Island Agriculture Strategy* (Islands Trust, 2011), *Summer Survey* (Uitto, 2011) and the *Farm Plan* common key issues arose. These were organized into four main categories:

Economic Viability

Processing and Infrastructure

Education

Regulatory Framework

PART 2 – KEY ISSUES AND RECOMMENDATIONS

Building on the vision of “An Island where we feed each other abundantly because farming is a viable and valued foundation of our sustainable community” the following key issues were identified as areas of opportunity for enhancing agriculture on Denman Island:

- Economic Viability
- Processing and Infrastructure
- Education
- Regulatory Framework

Within each key issue a series of recommendations have been suggested:

Economic Viability

- 1. Enhance cooperation amongst farmers for marketing*
- 2. Consider agritourism initiatives*
- 3. Make farm products more accessible to the Denman Island Community*
- 4. Lobby BC Ferries to support farmers*

Processing and Infrastructure

- 5. Establish facilities to support processing and storage of farm products*

Education

- 6. Increase the availability of farming-related workshops and courses*
- 7. Develop and support farm to school programming*
- 8. Educate and support new and current farmers*

Regulatory Framework

9. Promote the active use of farmland

10. Establish an Agricultural Advisory Planning Commission

11. Undertake a review of farm worker housing and agritourism accommodation

12. Hire an Agricultural Economic Support Officer

13. Implement zoning updates through the Land Use Bylaw

14. Amend the Official Community Plan

In addition to the 14 recommendations suggested by the community an overarching recommendation arose that will aid in achieving the vision of farming on Denman Island.

The Islands Trust is urged to take advantage of the opportunity to play a key role in Canadian and international agricultural policy and act as an advocate for the farming community in the Gulf Islands.

This recommendation arose from community feedback that revolved around high-level principles to do with issues such as Genetically Modified Organisms (GMOs) and international trade agreements introducing competition for local food and farm products. In 2007, a petition was submitted to the Denman Island Residents Association to make Denman Island a GMO-free zone. While there appears to be strong support for passing legislation to limit GMOs on Denman Island, further consultation with the community and partner organizations, such as the Ministry of Agriculture, will need to take place. Some agricultural policies stretch far beyond the jurisdiction of the Islands Trust; however, there may still be avenues for the Islands Trust to engage in an advocacy role by lobbying senior governments in order to represent the interests of the farming community in the Gulf Islands.

Each of the 14 recommendations described below outlines a series of actions that need to be taken to meet the specific recommendation. Some recommendations require numerous actions, while others require only one. The implementation tables below each recommendation indicate the key players, timeframe, priority and funding requirements and sources for each action. The actions are offered as detailed tasks to be completed in order to achieve the desired outcomes within each recommendation. These are, by no means, set in stone and may be adapted or changed over time. The following pages provide a strategy for moving forward and implementing the *Denman Island Farm Plan*.

ECONOMIC VIABILITY

GOALS

- **Enhance cooperation amongst farmers for efficient and effective marketing.**
- **Increase agritourism activities to enhance farm profitability.**
- **Decrease the financial burden for farms transporting products off Denman Island.**

This section outlines some of the opportunities available on Denman Island to make farming more financially sustainable and resilient.

There are many marketing initiatives that have recently been implemented by the Hornby/Denman Growers and Producers Alliance (HDGPA) to increase the economic viability of farms in the region. In 2011, the HDGPA developed a Logo/Label Contest, which was open to the public. The winning entry was determined in the summer of 2012 and distributed to local farmers producing Denman Island products that they would like to promote. This project will help to develop a recognized brand for Denman Island farm products and can be used in marketing efforts.



HDGPA Winning Logo

FARMER COOPERATION

As part of the HDGPA a selection of participating farmers cooperate in marketing their products. Currently, they are selling a variety of products to the Denman Island General Store in a cooler purchased by the HDGPA. The General Store has been supportive in showcasing these products and supporting the local farming industry. This association is also selling products to a local restaurant that promotes these products on their menus and in their dishes. The local restaurants and catering outfits, as well as Westisle Farm, who run a small farm market, have also been supportive of other farmers on the island by sourcing local products when they are available. Despite these outlets, concerns were raised that there is an inadequate number of locations and markets where farmers can sell their products, which limits their exposure to the local population.

“It’s important to get the growers together”.

To improve the economic situation for farmers on Denman Island many of the participants at the forum and focus group sessions proposed a variety of marketing tools and ideas. Even though some farmers are already cooperating to jointly sell products through the HDGPA, some members of the farming community suggested that they could benefit from more communication and cooperation. A Community Supported Agriculture (CSA) program was one idea put forth by the community that generated significant support. CSAs function by community members providing a set amount of money (otherwise known as a “share”) at the beginning of the growing season to farmers to offset their farm input costs and in return members receive a weekly or bi-weekly box of produce throughout the growing season. To eliminate the burden placed on one Denman Island farmer, this CSA could be coordinated through a group of farmers who contribute products to the weekly boxes. Additionally, farmers could

investigate the potential for cooperative direct farm sales and off-island sales. Another option to explore would be to cooperate in purchasing of inputs and timing in planting of crops to make things easier and less expensive. The possibility for local businesses to cooperate on purchasing products was also mentioned, in order to keep costs down. Local businesses present at the focus group sessions also suggested that bartering opportunities may exist for small scale farmers with limited products to offer.

RECOMMENDATION:

1. ENHANCE COOPERATION AMONGST FARMERS FOR MARKETING

Actions:

- Increase cooperation with one another to market, sell and price products for markets on and off the island.
- Coordinate planting and purchasing of inputs to reduce costs and ensure a consistent supply of farm products.

Desired Outcomes:

- Farmers are marketing their products more effectively to local markets since they can offer a consistent supply and product.
- Local businesses clearly know which farms to approach for products.
- Farmers have reduced the costs of inputs by sharing expenses.

A. Increase cooperation with one another to market, sell, and price products for markets on and off the island.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Support strategies for cooperation that would benefit the farming community.	N/A	HDGPA Local Businesses	Ongoing	High	Low	Investment Agriculture Foundation (IAF) Growing Forward

B. Coordinate planting and purchasing of inputs to reduce costs and ensure a consistent supply of farm products.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Determine and support strategies for cooperation that would benefit the farming community.	N/A	HDGPA Denman WORKS!	Ongoing	High	Low	

AGRITOURISM AND MARKETING

The potential for agritourism on Denman Island is a controversial topic. Many suggested that agritourism could play an important role in marketing of farm products, but some were concerned that it could have an impact on biosecurity issues, farm access and farm productivity. Still others believed that the concept of “tourism” in general did not fit with the culture of Denman Island. It is important to note that agritourism is usually not seen as a mandatory requirement in any community and is solely at the discretion of the farm operator or business. Specific policies can also be developed to minimize biosecurity risks.



Westisle Farm's Produce Shack

Agritourism is generally defined as “any land based farm or business that is open to the public” and can also be defined as “the practice of touring agricultural areas to see farms and often to participate in farm activities” (Agritourism World, 2012). Agritourism can supplement and diversify agricultural income, contributing to the stability of agriculture in rural communities and may help visitors to better understand agricultural practices (ALC, 2005). Some examples of agritourism activities are (Curran, 2005):

- Retail sales of products primarily from the farm, from farm stands and farmers’ markets;
- Tours, including pumpkin patch tours, circle farm tours and slow food bike tours;
- Product processing and retail sales;
- Horse riding, guest ranches and livestock shows;
- Hay, tractor and sleigh rides;
- Fishing from a stocked pond;
- Wine tasting and food services associated with vineyards;
- Education about farming and food production as well as activities such as cooking classes;
- Special events like harvest fairs, farm product promotion, charity fundraisers using farm products, or catered food and beverage service special events; and
- Bed and breakfast, cottages or other accommodation such as camping.

The Local Trust Committee (LTC) outlines a specific policy in the OCP for agritourism endeavors (Islands Trust, 2008a,) demonstrating their support:

- Policy 15: The Local Trust Committee should encourage educational tourism, agritours, cultural tours, fairs, festivals, craft markets, garden or studio tours, hiking, biking, kayaking, walking, and low impact nature observation.

The Local Trust Committee also has identified specific zoning requirements for agritourism ventures such as farmers markets and harvest festivals (Islands Trust, 2008b):

- Markets and fairs are permitted in commercial (C) and institutional (IN) zones, for no more than 45 days a year (2 consecutive days for markets, 7 consecutive days for fairs).

Also, according to the Denman Island Land Use Bylaw 186 (Islands Trust, 2008b), agriculture is a permitted use in zones R1, R2, R3 and A. Within these zones, accessory buildings for the sale of horticultural and agricultural products produced on that site are permitted, as are tours and food and beverage sampling with Food Safe certification.

Agritourism activities that do not involve accommodation are an allowable farm use if they meet the following criteria as established by the Agricultural Land Commission (ALC) (ALC, 2005):

- 1) The land must be assessed as a farm;
- 2) The activity must be temporary and seasonal (note: with some additional criteria, wineries, cideries and farm retail sales are not required to be temporary or seasonal); and
- 3) The activity must be secondary to the farming activity, relate to the principle farm use, and promote or market farm products produced on the farm.

These restrictions imposed by the ALC could be problematic due to the fact that many of the farms within the ALR on Denman Island may not meet the criteria to be assessed as a farm for taxation purposes. Farms outside of the ALR do not experience the same restrictions and do not require approval from the ALC to engage in agritourism activities, but they must comply with the OCP and Zoning Bylaw.

Not all scales of agritourism may be suitable or appropriate for Denman Island, but some of the options presented by the community included: educational workshops and events; farm tours, specifically slow food cycle tours; harvest dinners and food festivals; on-farm work parties; farm stays; crop tastings, similar to wine tastings; and tours of heritage farms. Another idea was the creation of Island Buying Weekends where certain farm products would be available to the community over the course of a specific weekend. For example, poultry producers could collaborate to set specific weekends for sale of their products, which would minimize marketing and time spent selling products for the farmer and make it clear to buyers when products are available for sale. These weekends could be promoted in local news publications and in the existing Local Food Directory.

“We can learn from the Arts community. They are doing good things to let us know they are serious. Denman farmers need to brand themselves better.”

To further increase accessibility and knowledge of local farm products available on Denman Island, another item that was raised repeatedly during the public consultation process was the possibility of augmenting the Local Food Directory with an interactive website. Many community members mentioned that they would find the addition of farm names and a map very useful for locating local food. The current Local Food Directory was published by Renewable Energy Denman Island (REDI) in 2009 and has been updated annually. Despite access to this resource, a number of individuals mentioned that they didn’t know where they could access products or how to buy certain products such as meat. Additionally, those who are new(er) to the island may be unaware of all the properties and/or residents by name, and therefore have a difficult time knowing how to access local products without addresses, websites, and other contact information. They suggested

that a website or blog could be developed and maintained by a volunteer to provide more information on where and how to purchase certain products. This online content could also encourage a community gleaning program, whereby farms (or private properties) with excess produce offer their locations for free picking by volunteer gleaners for redistribution throughout the community. Gleaning programs exist in many communities, but the Victoria Fruit Tree Project has been one of the most successful (LifeCycles, 2012). The produce is split four ways with one-quarter allocated to the homeowner, one quarter given to the volunteers, one-quarter offered to community organizations, such as a local food bank or community centre, and one-quarter used to make value added products, such as apple chutney, apple juice and apple cider vinegar.

Another suggestion from the community was to increase the prevalence of food and agriculture articles in local Denman Island publications. These articles could focus on where to find local farm products, what to look for when purchasing these products, and current agricultural news. Community members also suggested the possibility of expanding the Denman Island Farmers Market to run twice per week on a year-round basis. Current management of the market would need to be enhanced, which may require further funding if market booth fees aren't sufficient. There could also be additional rental fees for the market if the market moves indoors for the winter season. An added possibility to increase access to farm products could be the construction of a farm produce stand at the Denman Island ferry dock during the summer months at the height of the tourist season. This booth could be staffed on a rotating basis by volunteers or by farmers on Denman Island. The produce stand would require capital costs to construct and advertise, but could be self-supporting in the long term.

In order to implement many of these agritourism initiatives, outside funding may be necessary. The Investment Agriculture Foundation (IAF) has funding options available through the Growing Forward program (see Potential Funding Sources section) to support local farmers. Another possibility for support on Denman Island is through Denman WORKS!. Denman WORKS! is a local Denman Island society that works with the Comox Valley Regional District to leverage the local tax-funded budget to apply for grants for community non-profit organizations (Denman WORKS!, 2012). BC Tourism may also be able to help support these initiatives through in-kind provisions.

RECOMMENDATION:

2. CONSIDER AGRITOURISM INITIATIVES

Actions:

- Investigate appropriate agritourism initiatives such as slow food cycle tours, food festivals, harvest dinners, island buying weekends, farm stays, heritage farm tours and crop tastings.
- Determine the interest level of creating an Agritourism Marketing Plan.
- Consider starting a Community Supported Agriculture (CSA) program for island residents.

Desired Outcomes:

- Increased tourism positively affects other businesses on Denman Island, which provides additional outlets for farmers to sell their products.
- Farmers have experienced an increase in their customer base since products are more convenient for residents to access.
- Production and marketing for farm products has been streamlined.

A. Investigate appropriate agritourism initiatives.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Ensure supportive zoning is in place.	Continue discussion about possible agritourism initiatives and appropriate locations.	Support agritourism initiatives. Initiate agritourism initiatives when appropriate such as food festivals.	HDGPA CVEDS Denman WORKS! BC Tourism	1-3 years	Medium	Low	IAF BC Tourism

B. Determine the interest level of creating an Agritourism Marketing Plan.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Provide input on the plan where appropriate.	Consider developing a seasonal agritourism marketing plan. Consider partnering with the Comox Valley Economic Development Society (CVEDS).	Contribute to the discussion on developing a plan. Provide input from a community perspective on the plan.	HDGPA CVEDS Denman WORKS! BC Tourism	3-5 years	Medium	Low - Moderate	IAF BC Tourism Denman WORKS!

C. Consider starting a CSA program.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Discuss the potential of initiating a cooperative CSA program.	Provide feedback on a potential CSA program.	HDGPA	1-3 years	High	Moderate	CSA Member shares

RECOMMENDATION:

3. MAKE FARM PRODUCTS MORE ACCESSIBLE TO THE DENMAN ISLAND COMMUNITY

Actions:

- Augment the Local Food Directory with an interactive website with maps and a blog.
- Develop a community harvest gleaning program.
- Produce local articles and publications about food and farming.
- Explore running the farmers market twice per week and indoor market opportunities.
- Investigate the opportunity of creating a farm produce stand at the Denman Community Dock by cooperating with the Denman Island Residents' Association (DIRA).

Desired Outcomes:

- Community members find shopping easier because they know what products are available on Denman Island, resulting in increased sales for local farmers.
- The gleaning program provides food for those who need it at minimal cost. Farmers have access to low cost labour to pick products. Quality food is not wasted.
- Residents have a consistent and accessible location to purchase local food and farm products. Farmers experience an increase in revenue from year-round sales.

A. Augment the local food directory with an interactive website.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Participate in and support efforts to highlight local farm products.	Web technician to develop and maintain an online local food directory and blog.	Denman WORKS! REDI BC Tourism	Ongoing	High	Moderate	Denman WORKS! Vancity BC Tourism

B. Develop a community harvest gleaning program.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Offer produce for gleaning when excess is available.	Participate in the gleaning program when offered.	Denman WORKS! Transition Denman Island (TDI)	Ongoing	Medium	Low	Denman WORKS!

C. Publish local articles and publications about food and farm products.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Provide suggestions for and write local articles and publications.	Provide suggestions for and write articles and publications.	Local publications	Ongoing	Medium	Low	N/A

D. Explore running the farmers market twice per week and indoor market opportunities.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Ensure supportive zoning is in place.	Ensure year-round produce is available.	Continue to support the farmers market in its new endeavors.	Denman Island Old School Committee Other Community Centres	3-5 years	Medium	Moderate	Denman WORKS! VIHA

E. Investigate a farm produce stand at the Community Dock.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Ensure supportive zoning is in place.	Support the produce stand with fresh products.	Support the produce stand.	DIRA	3-5 years	Low	Moderate	Denman WORKS! VIHA

BC FERRIES

Due to the high cost of transporting agricultural products and livestock on and off Denman Island, many farmers felt that this limited their production and the ability to sell their products to a larger customer base. Many farmers also felt that the cost of the ferries made it challenging to purchase important inputs and supplies from off Denman Island, particularly when towing a trailer. The cost for transporting a truck and trailer over 20 ft. in length is \$2 per foot, which often doubles the base price of a passenger vehicle under 20 ft. Farmers were keen to see the cost of towing a trailer reduced or eliminated for those with



Denman Island Ferry Dock

Agricultural licence plates. While some of these costs can be translated to consumers in the retail price to honour the true cost of food, many farmers are reluctant to raise their prices too high so that they can compete with other retail outlets. There was a strong desire amongst the farming community to at least see the ferry rates consistent with unit rates charged to private vehicles.

It was also suggested that Islands Trust could lobby BC Ferries to give farmers, and those with Agricultural licence plates, particularly vehicles carrying livestock, priority boarding at the front of the line to encourage agriculture on Denman Island and the other Gulf Island communities. Currently, a reservation system is not in place on the smaller routes, which can lead to long waits with livestock in extreme weather conditions. It was suggested that Islands Trust and the Denman-Hornby Ferry Advisory Committee could open a dialogue with BC Ferries to address these concerns.

RECOMMENDATION:

4. LOBBY BC FERRIES TO SUPPORT FARMERS

Actions:

- Meet with BC Ferries to discuss fare consistency and eliminating the extra length fees for agricultural vehicles hauling trailers to reduce the financial burden.
- Meet with BC Ferries to discuss assured and priority loading for producers transporting livestock.

Desired Outcomes:

- Reduced cost for farmers on BC Ferries that encourages marketing of Denman Island farm products to a larger market and decreases the cost of transporting farm products, livestock and inputs.
- Reduced wait times for farmers transporting livestock.

A. Lobby BC Ferries to keep fares consistent and eliminate the extra length fees for farmers.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Meet with BC Ferries to discuss fare consistency.	Provide support for advocacy purposes.	N/A	Denman-Hornby Ferry Advisory Committee	1-3 years	High	Low	

B. Lobby BC Ferries for assured and priority loading for producers transporting livestock.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Meet with BC Ferries regarding priority boarding for producers.	Provide support for advocacy purposes.	N/A	Denman-Hornby Ferry Advisory Committee	1-3 years	High	Low	

PROCESSING AND INFRASTRUCTURE

GOALS:

- **Increase the availability of farm processing equipment and infrastructure to create value added products for sale on and off Denman Island.**
- **Increase the availability of food storage options for food items such as meat and frozen foods.**
- **Increase the accessibility of farm tools, infrastructure and inputs.**

Due to the low population base and number of farm operations on Denman Island there has been limited infrastructure for farm processing and sales. There are appropriately scaled opportunities that have been implemented in other rural communities and could be investigated for implementation on Denman Island. The HDPGA has been working hard to find processing and infrastructure options for local farmers on both Denman and Hornby Islands. In 2011, the HDGPA purchased a small-scale juice press and grinder, as well as a chicken plucker that they rent out to local farmers. They are further working to increase their supply of farm equipment and have this available to those who need it.

Even though some efforts have been made to fill gaps in farm infrastructure on Denman Island farmers are still severely limited in both processing and storage facilities. In order to process tree fruits into juice or cider for sale, growers must have access to equipment that can press, pasteurize and bottle their products in a licensed facility. Currently, some farmers need to send their raw products off Denman Island for processing and sale.

FARM PROCESSING EQUIPMENT



Abundant Fruit Trees on the Island Provide Products for Processing

Since agriculture and food processing are permitted uses in R1, R2, R3 and A zones, it would be possible for a farmers' cooperative to collectively establish processing facilities on private land (Islands Trust, 2008b). One example of this is the Wild Islands Food Co-operative on Malcolm Island formed by residents of Sointula and the Sointula Co-op Association. The food processing cooperative was "designed to create an infrastructure that will provide support for new entrepreneurs and existing businesses to add value to local resources" (UVic, 2000). Through funding from the Job Creation Program (JCP), the Community Economic Adjustment Initiative (CEAI) and member shares they were able to renovate an existing building to provide federally approved processing facilities. This could be a possibility on

Denman Island in the long term with sufficient funds for the initial capital investment. Denman WORKS! could provide support for this initiative by helping to source funds through grants and donations. Farm processing equipment such as an industrial juicing press, pasteurization equipment, honey separator, egg grader, maple syrup evaporator and a mobile abattoir were identified as important infrastructure needs for Denman Island. A mobile abattoir was highlighted as an important component of livestock agriculture. Mobile abattoirs allow animals to be slaughtered close to the farm, which minimizes stress to the animals caused by transporting them off of the island.

FOOD STORAGE

Another concern raised by the Denman Island community was the lack of large-scale storage options for food. One local restaurant suggested that they are unable to purchase large quantities of meat from local farmers because they have no location to store this meat on their premises. A central storage facility with a freezer, cooler, warehouse and sorting area would be highly beneficial and well-utilized. These facilities could be placed in the same location as the potential processing centre, but short term solutions would be beneficial for both farmers and restaurant owners.

FOOD AND FARMING TOOLS AND INFRASTRUCTURE

Other farming tools, resources and infrastructure were identified as missing on Denman Island. Farming tools and inputs such as a spader, fencing supplies, soil amendments, livestock feed and seeds cannot be sourced on the island and need to be purchased on Vancouver Island. Also, infrastructure such as greenhouses, nurseries, composting facilities, a large animal vet and laboratory facilities were mentioned as potential ways to support farming. These might not be appropriate in a region the size of Denman Island, but could be explored as options. Furthermore, participants in the Community Forum suggested that a local brew pub would be a great place to showcase some Denman Island products and attract tourists.



Vintage Farm Equipment at Westisle Farms

RECOMMENDATION:

5. ESTABLISH FACILITIES TO SUPPORT PROCESSING AND STORAGE OF FARM PRODUCTS

Actions:

- Encourage the development of processing, warehousing and distribution facilities for local agriculture.
- Seek funding support through Denman WORKS! for a processing centre and explore options.
- Seek out existing infrastructure for storage of farm products.
- Coordinate with farmers to purchase and house necessary infrastructure such as greenhouses, additional nurseries and composting facilities.
- Investigate lending institutions and utilize financially supportive tools (loans, credits) for agricultural innovators.
- Support initiatives to attract local and/or regional appropriately-scaled processing activity, such as canning operations, wineries, breweries, cheeseries and small-scale freezing/dehydrating operations.
- Partner with the Vancouver Island Health Authority (VIHA) to advertise and provide food safety training to local producers/processors.
- Engage the ALC and Ministry of Agriculture in discussions regarding regulations related to on-farm processing.

Desired Outcomes:

- Farmers are able to store products to be sold at a later date and lengthen the growing season.
- Connections with other processors and organizations that can provide technical and educational support have been established.
- Farmers have access to equipment to produce value-added products and store existing products to increase farm profits.
- New processed products made with local farm products have been created for sale to local businesses on and off the island.

A. Enable establishment of processing, warehousing, and distribution facilities for local agriculture.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
<p>Work with farmers to identify target locations.</p> <p>Ensure supportive zoning and land use designations are in place.</p> <p>Amend Land Use Bylaw to allow Temporary Use Permits for facilities (see #13).</p>	<p>Work with the LTC to identify appropriate areas.</p> <p>Consider creating appropriate facilities on farm properties or elsewhere.</p>	<p>Support the establishment of facilities.</p>	<p>HDGPA</p> <p>Small Scale Food Processors Association (SSFPA)</p> <p>Denman WORKS!</p>	<p>1-5 years</p>	<p>Medium</p>	<p>Moderate</p>	<p>IAF</p> <p>Private Sector</p> <p>Growing Forward</p> <p>Denman WORKS!</p>

B. Seek funding support through Denman WORKS! for a processing centre.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
<p>Work with farmers to identify target locations for a processing centre.</p>	<p>Work with the LTC to identify an appropriate location for a processing centre.</p> <p>Apply for funding.</p>	<p>Support the establishment of a processing centre.</p>	<p>Denman WORKS!</p> <p>HDGPA</p>	<p>1-5 years</p>	<p>High</p>	<p>High</p>	<p>Denman WORKS!</p>

C. Seek out existing infrastructure for storage.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Investigate options for food storage facilities, greenhouses, nurseries & composting on farms and in existing buildings.	Offer available infrastructure for farming purposes if available.	HDGPA	1-3 years	High	Low	

D. Coordinate to purchase and house infrastructure such as greenhouses, nurseries and composting facilities.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Cooperate to purchase scale-appropriate infrastructure.	Support new facilities.	HDGPA Denman WORKS!	1-3 years	High	High	Denman WORKS!

E. Investigate lending institutions and utilize financial tools.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Look into and utilize financial tools.	N/A	HDGPA	1-3 years	High	Existing	

F. Support initiatives to attract local and/or regional appropriately-scaled processing activity.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Work with CVEDS and BC Tourism to encourage local and/or regional processing activity.	Encourage local and/or regional processing activity.	N/A	CVEDS SSFPA BC Tourism	Ongoing	Medium	Moderate	Growing Forward IAF

G. Partner with the Vancouver Island Health Authority (VIHA) to advertise and provide food safety training.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Work with VIHA to offer food safety training for local producers.	N/A	VIHA AGRI HDGPA	1-3 years	High	Moderate	VIHA AGRI

H. Engage the ALC and AGRI in discussions regarding regulations related to on-farm processing.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Ensure Zoning Bylaw and OCP are updated to harmonize with provincial regulations regarding on-farm processing.	N/A	N/A	ALC AGRI	1-3 years	High	Moderate	

EDUCATION

GOALS:

- **Provide education for consumers on Denman Island so that there is a greater appreciation and support for local agriculture.**
- **Provide education and extension support for farmers on Denman Island so that they can optimize their production and increase farm profitability.**

Within the topic of education two subcategories of ideas emerged during the public consultation process. The community suggested that there could be more educational opportunities for both consumers and farmers on Denman Island.

EDUCATION FOR CONSUMERS

Many of the participants at the forum and focus group sessions felt that there could be more education on topics such as the “real cost of food”, the importance and benefits of eating locally and seasonally, and the potential contamination of bringing in plants and products from off the island (i.e. weeds, pests, diseases, etc.). Although workshops and seminars are currently offered on farming topics through various community organizations, this could be enhanced.



Community School Garden

The Denman Island Community Education Society “provides education, support and recreational services to children, youth, families and adults”. Their programs are focused on “literacy and early intervention programs for pre-school and primary children, support for teens commuting to high school, community Internet access, distance education, health and wellness education, continuing education for life-long learning, employment counselling, and recreational programs” (DICES, 2012). It was recommended through the public consultation process that agricultural education opportunities could be integrated into the school curriculum and that the current school garden could be revived and utilized.

The community school has limited and tenuous financial support and relies heavily on volunteers. Community members and farmers who are interested in the community school implementing agricultural programs could volunteer their support. BC Agriculture in the Classroom (AITC) Foundation offers a variety of resources and programs for schools to assist in integrating agriculture into their curriculum. Some of their key programs include the BC School Fruit and Vegetable Nutritional Program, Spuds in Tubs and Take a Bite of BC. AITC also offers a series of lesson plans for a variety of grade levels and could be a valuable partner for the Denman Island Community Education Society.

DICES also currently offers Community Delivered Education Programs, which could include agricultural content. Some topics that could be offered at all age levels are: food security, food sovereignty, small-scale food production, small-scale livestock husbandry (i.e. chickens, rabbits, etc.), wild food harvesting (i.e. mushroom picking, wild plant harvesting, etc.), food preservation techniques (i.e. canning, dehydration, fermentation, etc.) and cooking classes. Many community members have expertise in these areas and instructors could be drawn from the current pool of residents. Programs that are offered outside of school hours are subscriber funded, which could also help with the ongoing costs of maintaining this service.

RECOMMENDATION:

6. INCREASE THE AVAILABILITY OF FARMING-RELATED WORKSHOPS AND COURSES

Actions:

- Enhance and increase existing food security, climate change, seed saving, food production and other workshops and courses.
- Explore management tools and programs that will support the sustainable harvesting of wild foods like honey, berries and mushrooms.

Desired Outcomes:

- Community members have developed a stronger appreciation for farming.
- Farmers have learned new farming techniques that contribute to increased farm profitability.
- Farmers are able to access new farm products that require minimal management and contribute to enhanced revenues.

A. Enhance and increase existing agricultural workshops and courses.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Promote educational opportunities	Offer expertise to instruct workshops and courses.	Support and attend educational opportunities when offered.	Denman WORKS! HDGPA	Ongoing	High – Medium	Moderate	Denman WORKS!
	Promote educational opportunities.	Promote educational opportunities. Offer expertise to instruct workshops and courses.	Denman Island Community Education Society (DICES)				Vancity IAF VIHA AGRI

B. Explore management tools and programs that will support the sustainable harvesting of wild foods.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Provide information on pertinent legislation, conservation area needs, and public areas available for wild food harvesting.	Offer expertise to instruct workshops on sustainable wild harvesting. Promote educational opportunities.	Support and attend educational opportunities when offered. Offer expertise to instruct workshops on sustainable wild harvesting.	Denman WORKS! HDGPA DICES	Ongoing	High – Medium	Moderate	Denman WORKS! IAF

RECOMMENDATION:

7. DEVELOP AND SUPPORT FARM TO SCHOOL PROGRAMMING

Actions:

- Consider implementing agricultural education within the Denman Island Community Education Society's current curriculum.
- Expand the existing school garden with support from the surrounding community.

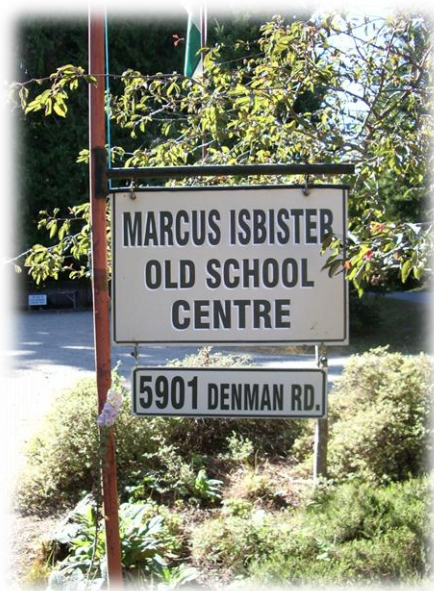
Desired Outcomes:

- Local Denman Island school children have a stronger understanding of food and farming.
- School children develop the tools and knowledge to grow their own food and farm products.

A. Support and expand agricultural education within the DICES's current curriculum							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Provide expertise and offer to instruct classes.	Provide expertise and offer to instruct classes.	DICES BC Agriculture in the Classroom (AITC)	1-3 years	High	Moderate	Farm to School Program Vancity VIHA AITC (in-kind)

B. Expand the existing school garden with support from the surrounding community.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Support the expansion of the school garden by donating plants and helping to plant and harvest.	Support the expansion of the school garden by providing volunteer labour.	DICES	1-3 years	High	Moderate	Evergreen Vancity VIHA

EDUCATION FOR FARMERS



In order to enhance profitability on farms on Denman Island, farmers who were present during the forum and focus group sessions identified an opportunity to educate and provide resources to farmers on effective crop varieties, pricing, production techniques, animal welfare concerns, climate change adaptation and navigating regulations. It was suggested that a resource library could be developed to provide support for farmers on Denman Island in addition to collaboration with the Ministry of Agriculture’s Growing Forward program (see Potential Funding Sources).

A popular suggestion that was raised was the hiring of an agricultural support officer to provide extension services to local farmers on island communities and help them to navigate federal, provincial and local regulations. Agricultural support officers act as a liaison between government, health authorities and local farmers. In 2007, the Regional District of the Central Okanagan hired an Agriculture Support Officer through the regional Economic Development Office to implement their region’s agricultural area plan. This officer also provides support to the residents in the community by receiving nuisance complaints and explaining regulations where necessary. Ideally the Agricultural Support Officer would be a Professional Agrologist with planning skills who could provide support in determining crop varieties that provide high economic returns, identifying appropriate production methods, recognizing strong marketing potential for various products and ascertaining effective pricing structures. An Agricultural Support Officer could be hired through the regional Economic Development Office (CVEDS) or Denman Works! to provide support for local farmers and encourage new farmers to move to the region.

Another recommendation that was presented during the forum and focus group sessions was that the community should take advantage of the agricultural expertise and knowledge existing on Denman Island. Mentoring for new and current farmers could also be developed through the HDGPA.

RECOMMENDATION:

8. EDUCATE AND SUPPORT NEW AND CURRENT FARMERS

Actions:

- Create educational opportunities for new and current farmers on Denman Island.
- Consider establishing a mentoring support system to help new and current farmers with farming questions.
- Liaise with Ministry of Agriculture staff (Farm Business Advisory Services Board) to explore information extension opportunities for farmers regarding provincial regulations. Topics could include: meat processing regulations and licensing, aquaculture, business development, farm value assessments, crop diversification, long term leases, covenants, marketing and pricing, equipment rental and sharing, pricing products appropriately, etc.

Desired Outcomes:

- Farmers learn new farming techniques and business development opportunities that contribute to increased farm profitability.
- New and current farmers are encouraged and remain on Denman Island.

A. Support and expand educational opportunities for new and current farmers							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Partner with AGRI to offer workshops for farmers.	Attend and support workshops when offered. Offer to instruct workshops in areas of expertise.	Attend workshops to learn about farming opportunities. Offer to instruct workshops in areas of expertise.	AGRI CVRD HDGPA	Ongoing	High – Medium	Moderate	AGRI CVRD IAF Denman WORKS!

B. Establish a mentoring support system.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Consider establishing a mentoring program through the HDGPA.	N/A	HDGPA	Ongoing	Medium	Low	

C. Connect with AGRI education opportunities							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Work with AGRI to offer education on BC regulations.	Attend and support workshops when offered.	N/A	HDGPA AGRI	Ongoing	Medium	Moderate	AGRI

REGULATORY FRAMEWORK

GOALS:

- Further preserve and protect agricultural land by implementing local government tools, updating the Land Use Bylaw and amending the OCP.
- Provide an opportunity for farmers to house seasonal farm workers through camping or secondary dwellings when appropriate.
- Investigate opportunities for scale-appropriate processing and sales of eggs, meat and milk on and off Denman Island.
- Increase the likelihood of farms obtaining farm tax status.

Agriculture in Canada is governed by several levels of government and associated municipal, provincial and federal policies. Due to their interrelationships, these regulations can be confusing and overwhelming. Many community members on Denman Island are unclear on how and what regulations affect agriculture in this region. An explanation of the role of Federal, Provincial and Local agencies that govern agriculture in BC can be found in the *Denman Island Agriculture Strategy*.

Through consultation with the farming and residential community on Denman Island it was determined that there were a number of regulatory barriers that had an effect on farming. Some of these regulations were discovered at the local government level with the Islands Trust, while others existed at the Provincial level.

LOCAL GOVERNMENT ISSUES

Community members felt that these policies and regulations could be strengthened to further support agriculture and enhance the profitability of farming ventures through amendments to the OCP and updates to the Land Use Bylaw. Two main areas of concern that could be addressed by the local government are the non-farm use of agricultural land within the ALR and farm worker housing.

NON-FARM USE OF AGRICULTURAL LAND

Some concerns were raised during the public consultation process that exclusion applications for land within the ALR on Denman Island are being approved too readily. It is unclear whether or not these concerns are evidence-based or not. However, recent redesignation of ALR land into a new park was noted as an example of the alienation of ALR land on the island. The Trust Council is supportive of maintaining the ALR base, as evidenced in their policy statement (Islands Trust, 2003):



Exclusion Application Notice

- 4.1.11 Trust Council encourages the Agricultural Land Commission to approve applications from property owners for inclusion of their land with potential for agriculture in the Provincial Agricultural Land Reserve.

The Local Trust Committee has also demonstrated clear support for the ALR in the Denman Island OCP (Islands Trust, 2008a).

Objective 1: To protect the Agricultural Land Reserve

- Policy 6: The Local Trust Committee should only support an application for non-farm use or exclusion of land from the ALR if the proposed non-farm use or exclusion provides for an essential community service or amenity which cannot reasonably be located on land outside of the ALR and for which the community need clearly outweighs the loss to agriculture.
- Policy 7: The Local Trust Committee should only support an application for non-farm use or subdivision on land in the ALR if the proposed non-farm use or subdivision is consistent with zoning regulations and either:
 - allows an activity that supplements the farm income and does not decrease the farming capability of the property; or
 - protects the land for conservation purposes.

In addition, the Denman Island Local Trust Committee has the capacity to act as the agent of the ALC in land use decisions under the Local Government Act and can deny applications before submission to the ALC if they may result in a zoning change (ALC, 2002). A Denman Island Agricultural Advisory Planning Commission (AAPC) could be established to review incoming ALR applications and make recommendations to the Local Trust Committee. The AAPC would provide the Local Trust Committee with expertise and experience from the farming community to assist with challenging application decisions.

In addition to the ALR there are a variety of tools available to local governments to help protect agricultural land including Agricultural Enterprise Zones, Covenants, and Farmland Trusts.

Agricultural Enterprise Zones

Agricultural enterprise zones (AEZs) refer to designated areas where zoning, tax exemption and other programs stimulate select types of business activity and job creation (Curran & Stobbe, 2010). The purpose is to facilitate the co-location and land use agglomerations of agricultural services in a certain area to benefit both farms and businesses. AEZs are typically located in appropriate commercial and industrial areas outside the ALR but adjacent to farms, and provide a dedicated location for agricultural-related businesses. Incentives for the development of new enterprises such as processing facilities, product storage, and services for farm businesses are usually included. The creation of an AEZ on Denman Island could stimulate creative competition and economic knowledge spillovers that result in development of value-added products, processing technologies, intra-firm value chain collaboration, economies of scale, and cooperation in activities like marketing (Curran & Stobbe, 2010).

Covenants

A covenant is a voluntary agreement between the landowner (often a farmer or a developer) and a covenant holder (a municipality, regional district, or non-profit organization) (Curran, 2005). The landowner agrees to protect the land outlined within the covenant, while the covenant holder has the right to monitor and enforce the covenant to make sure the landowner is using the land in accordance with the covenant. Registering the covenant on the title of the land ensures that the covenant applies to future owners and endures indefinitely.

Covenants on parcels of residential land adjacent to the ALR can include buffer specifications and landscaping requirements to mitigate nuisance complaints as a result of farming activity. Covenants “run with the land,” meaning they apply to whoever owns the land, thus ensuring that edge mitigation measures endure over the long term. Covenants may contain the following provisions (Curran, 2005):

- The use of land (including that it be used for agricultural purposes), or the use of a building on or to be erected on land;
- That land is to be built on in accordance with the covenant or is not to be built on;
- That land is not to be subdivided except in accordance with the covenant or is not to be subdivided;
- That parcels of land designated in the covenant are not to be sold or otherwise transferred separately;
- That land or a specified feature be protected, maintained, enhanced, or restored in accordance with the covenant.

Covenants are often secured on land that is being subdivided adjacent to farmland to ensure that future activities and development do not hinder the productive ability of the land in the ALR (Curran, 2005). Covenants also provide notice to potential buyers that the land is adjacent to farmland, which helps prevent future conflict. Municipalities, regional districts and other organizations such as farm and conservation groups can also use covenants to restrict the use of land to activities and areas of use that respect farming. Under section 219 of the *Land Title Act*, a municipality or regional district may register a covenant on the title to land to protect specific characteristics of land in or adjacent to the ALR. Currently, one buffer covenant was required in 2010 for a subdivision in the North Denman Lands bordering the east side of the new Park Road. Covenants of this nature could be required in the subdivision regulations under the Land Use Bylaw 186.

Farmland Trusts

To further protect the ALR and farmland one suggestion we heard during the public consultation was the establishment of a Community Farmland Trust (CFT). CFTs are generally charitable, private organizations with the mandate to protect and preserve farmland (Reakes, 2007). There are a variety of different models for trusts of this nature, but non-profits are the most common. The University of Victoria (UVic) Environmental Law Centre has developed a handbook (Reakes, 2007) to provide guidance in establishing a CFT. During the forum and focus group sessions it was suggested that a percentage of the tax income from the community could be used to purchase land for farming and help to establish a CFT. This trust could be governed by an existing non-profit organization, such as the Denman Conservancy Association (DCA), or a newly formed organization whose mandate is to accept, purchase and actively manage farmland on Denman Island to ensure it is farmed into perpetuity. The DCA is a charitable conservancy empowered to hold land under the Ecological Gifts Program and as a designated party entitled to hold conservation covenants. This land could also be used to establish educational farm operations or provide low cost land to new farmers to the region.

RECOMMENDATION:

9. PROMOTE THE ACTIVE USE OF FARMLAND

Actions:

- Support the development and use of community farmland for community gardens, educational farm plots and larger parcels of land for agriculture. Support the HDGPA’s current land-linking project.
- Develop a checklist for the LTC and Islands Trust staff to use when reviewing ALR applications for subdivisions, non-farm use, and exclusions as well as farm worker housing applications in consultation with the Ministry of Agriculture and the ALC.
- Create a farmland trust.

Desired Outcomes:

- Farmland within and outside the ALR has been preserved for farming activities.
- Farmers with limited capital investment opportunities have access to land for farming.
- It has been ensured that the maximum amount of farmland is in its most productive use regardless of ownership.

A. Support the development and use of community farmland.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Support the HDGPA’s Land Linking and Land Bank projects. Ensure supportive zoning is in place.	Further develop the Land Linking and Land Bank programs. Mentor new farmers leasing farm plots.	Support the use of community farmland. Participate in the community gardens and educational plots.	HDGPA Denman Conservancy Association (DCA) AGRI Linking Land and Future Farmers	3-5 years	Medium - Low	Significant	Leases or Licences Membership Fees Donations of land

B. Develop a checklist to use when reviewing applications							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Develop a checklist to use when reviewing ALR and farm worker housing applications.	N/A	N/A	AGRI ALC	1-3 years	High	Moderate	

C. Create a farmland trust.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
N/A	Provide land for the farmland trust. Provide donations. Become a member of the trust.	Provide land for the farmland trust. Provide donations. Become a member of the trust.	DCLTA DCA	5-10 years	Low	High	Leases or Licences Membership Fees Donations of land

RECOMMENDATION:

10. ESTABLISH AN AGRICULTURAL ADVISORY PLANNING COMMISSION

Action:

- Appoint an Agricultural Advisory Planning Commission (AAPC) that would include local farmers once the Agriculture Plan Steering Committee is dissolved.
 - The AAPC would assist the LTC in the implementation of the Farm Plan; provide recommendations to the LTC on land use applications on ALR land such as for subdivision, non-farm use, rezoning and exclusion of land; and would provide recommendations to the LTC on any other special projects or initiatives to do with agriculture

Governance and Operation:

- The AAPC to be established as an advisory commission to the LTC. Members from the food and farming community would be appointed to sit on the AAPC with ex-officio members from the Ministry of Agriculture, Comox Valley Regional District and the Denman Island Local Trust Committee.

Desired Outcomes:

- Insight and input has been generated from local farmers on the impact of local planning on the farming community.
- The *Farm Plan* has been effectively implemented and monitored by members of the farming community.

A. Appoint an AAPC.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Appoint members from the farming community to sit on the AAPC.	Volunteer to sit on the AAPC.	Volunteer to sit on the AAPC if appropriate.	CVRD AGRI	Short	High	Low	

FARM WORKER AND AGRITOURISM HOUSING

A major concern raised by the participants during the forum and focus group sessions was the lack of provision for housing for agritourism activities and temporary farm workers. The following are the Denman Island zoning regulations that have to do with on-site accommodation (Islands Trust, 2008b):



- Home-based guest accommodation must be contained within the principal dwelling unit, and is limited to a maximum of three bedrooms, including Bed & Breakfasts;
- Vacation rentals of less than one month, whether occasionally or on a repeated basis, are not permitted;
- Dwelling units for full-time farm workers employed on the lot are permitted in Zone "A";

Some of the farmers consulted expressed a need to house farm workers, but their property may not have been located in Zone "A", or they did not have full-time help. Furthermore, commercial campgrounds are permitted on Denman Island only within Fillongley Park (Islands Trust, 2008b). Establishing commercial campgrounds on private land is currently not permitted. Other communities have come across this issue and the Ministry of Agriculture is reviewing farm worker housing.

The ALC permits the following land uses on ALR under Section 3 (ALC, 2003):

- A. Accommodation for agritourism on a farm if
 - a. All or part of the parcel on which the accommodation is located is classified as a farm under the Assessment Act,
 - b. The accommodation is limited to 10 sleeping units in total of seasonal campsites; seasonal cabins, or short term use of bedrooms including bed and breakfast bedrooms; and
 - c. The total developed area for buildings, landscaping and access for the accommodation is less than 5% of the parcel.

There are concerns in many communities with the establishment of farm worker housing such as potential misuse for rental housing and non-farm use purposes, loss of agricultural land due to housing, increased density in the agricultural landscape, increased demands on the infrastructure and workers coming in with no connection to the community (Hesje, 2010). For these reasons mechanisms have been identified that can be used to regulate farm worker or agritourism accommodation such as minimum lot sizes, home plate covenants (housing envelopes that protect agriculture and reduce fragmentation by keeping residential uses clustered together), thresholds of operation for crop types, statutory declarations, restrictive covenants and open communication (Hesje, 2010). In the City of Chilliwack, once per year the Registered Owner of the parcel must submit written confirmation stating that the approved user is still occupying the Temporary Accessory Dwelling. Minimum lot sizes are also common and range between 2 and 4 hectares (5 to 10 acres).

The level of farming currently on Denman Island may not meet the criteria required for approval of seasonal worker housing; however investigating opportunities for camping on farms that meet a level of production may be an option. Consultation with the farming community will help to identify the need for farm worker housing, as it is currently unknown, and identify appropriate changes to the Land Use Bylaw.

RECOMMENDATION:

11. UNDERTAKE A REVIEW OF ADDITIONAL HOUSING ON FARMLAND

ACTIONS:

- Undertake a review of additional housing on farmland (i.e. farm worker housing and agritourism accommodation) in consultation with the DCLTA and the newly established AAPC to determine the need for additional housing.
- Discuss solutions such as camping or temporary structures.
- Participate in current discussions in other island communities regarding additional housing.
- Consider the following OCP and zoning amendments:
 - Allow secondary suites in principal single family dwellings in agricultural areas including zones A and R2.
 - Adopt a policy that the LTC may consider zoning regulations permitting additional accommodation for farm help, provided the accommodation is necessary for farm purposes, provides cooking and washing facilities, and is temporary in nature, limited in size, and consistent with the recommendations of the Regional Agriologist. This accommodation may include, but is not limited to commercial camping facilities.
 - Adopt a policy that agritourism accommodation may be permitted as an accommodation outside of the primary dwelling. The LTC may consider applications for rezoning or temporary use permit that would permit agritourism accommodation, provided that:
 - a) the use is accessory to working farm operations;
 - b) the use is on agriculturally designated land that is in the ALR or has farm tax status;
 - c) the application is consistent with ALC policies;
 - d) the working farm will continue in operation and will not be adversely affected;
 - e) potable water of sufficient quantity for both farming and non-farming use is available;
 - f) sewage disposal facilities are suitable;
 - g) on-site parking is adequate;

- h) the impact of increased traffic on adjacent roadways is considered;
- i) the environmental impact of the proposal is considered; and
- j) the impact on adjacent properties is addressed.

Desired Outcomes:

- Farmers are able to accommodate and access increased farm labour, which increases farm revenues.
- Farmers have generated revenue from agritourism accommodation and farm stay options.

A. Review issues of farmworker housing, secondary suites, and agritourism accommodation							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Determine needs of farmers for farm workers in consultation with the AAPC. Support the DCLTA in securing affordable housing.	Provide a clear estimate of farm worker needs and timeframes.	N/A	AGRI ALC DCLTA	1-3 years (Farm Worker Housing) 3-5 years (Agritourism Accommodation)	High	Low	

B. Consider solutions such as camping or temporary structures.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Consider regulations to allow temporary housing on farmland.	Participate in discussion on solutions for temporary housing.	N/A	AGRI ALC	1-3 years	High	Low	

C. Establish Islands Trust-wide approach to reviewing housing on farmland.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Islands Trust to initiate with advocacy from the LTC.	Participate in advisory role.	N/A	Other Gulf Island LTCs	3-5 years	Medium	Moderate	

D. Implement updates to the Land Use Bylaw and OCP, if required							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Consider amending the Land Use Bylaw and OCP to reflect the need for additional housing.	Participate in advisory role.	N/A	AGRI ALC	3-5 years	Medium	Moderate	

PROVINCIAL AND SUPPLY MANAGEMENT REGULATIONS

Many of the concerns around regulations presented at the forum and focus group sessions focused on provincial level governance. Some of these concerns included: dairy quota, egg grading, meat inspection and farm tax status. Each of these is discussed below.

DAIRY QUOTA RESTRICTIONS

A significant desire for local dairy products was evident during the forum and focus group sessions. Residents of Denman were interested in accessing locally-produced dairy products such as cow milk and cheese, but there are restrictions with dairy quota that prohibit some forms of cow dairy product production. The BC Milk Marketing Board (BCMMB) promotes, controls, and regulates the production, transportation, packing, storing and marketing of milk, fluid milk and manufactured milk products (BCMMB, 2010). The following are some of the duties and responsibilities of the BCMMB:

- Maintain a register of licensed producers;
- License all producers, vendors, producer vendors and milk transporters;
- Allot milk quota to licensed producers;
- Serve as the registrar of milk quota and administer the transfer of milk quota among licensed producers;
- Administer the timely changes to authorized, published milk prices;
- Administer the monthly producer equalization pool, including the reconciliation of milk production with reported processed industrial milk product production and fluid sales; and
- Coordinate daily on-farm milk pick-up and delivery to processors.

Quota and supply management are in place in Canada to ensure that production meets the needs of consumers and establishes production level to meet the demand (BCMPA, 2012). The cost to purchase quota is often prohibitive for most small-scale dairy operations and the available quota is largely located in the Lower Mainland of BC. A new program was established by the BCMMB called the Cottage Industry Program (CIP), which allows small producer/processor manufacturing operations to run independently so as not to jeopardize the provincial obligations to the Western Milk Pool. Quota is temporarily allocated during the start-up years and the producer is

required to obtain a Class E Producer Vendor Licence. This licence comes with a number of restrictions for the producer including (BCMMLB, 2010):

- The producer must not operate more than one dairy farm.
- Production volume must not exceed 4.1 kg of butterfat per day.
- The producer must be located in a Remote Region (North Vancouver Island qualifies).
- The producer must process only milk produced by that producer's own cows and only into consumer ready manufactured milk products.
- The producer is ineligible to receive milk.
- The producer cannot market fluid milk.

Little Qualicum Cheeseworks in Qualicum Beach and Moonstruck Organic Cheese Inc. on Salt Spring Island both belong to the CIP and function as small-scale independent cheese producers. They utilize the milk from their own cows to create value-added products for sale on and off the islands. The CIP could be a viable option for Denman Island under the right circumstances.

It is also important to mention that the quota restrictions only apply to cow milk and cow milk products. Sheep and goat dairies are not regulated by the BCMMLB, but operations still need to be licenced by the BC Centre for Disease Control.

EGG GRADING REGULATIONS



Similar to the cow dairy quota, egg production is governed by supply management and quota restrictions. The BC Egg Marketing Board administers the national supply management system for eggs in BC and has the authority to impose and collect levies from producers (BCEMB, 2010). Due to this supply management system, and regulations outlined by the Ministry of Health, Denman Island producers are unable to sell eggs directly to local commercial businesses unless they have been graded at a registered grading station. However, individual producers can sell eggs directly to consumers from their farm gate or at a farmers market. The nearest egg grading station to Denman Island is located in Westholme on Vancouver

Island, just north of Duncan. It is very expensive to ship small quantities of eggs to this station from Denman and it would be beneficial to have a station closer, or within the Comox Valley. There are only four stations in all of BC, so it is unlikely that this will occur in the short term, but HDGPA could investigate the feasibility of purchasing a small egg grader and provide this information to the Denman Island community.

MEAT INSPECTION REGULATIONS

Participants in the focus group sessions and forum expressed concern that the meat inspection regulations have made it cost-prohibitive and logistically challenging to raise animals for meat on Denman Island. While the Canadian Food Inspection Agency (CFIA) oversees the inspection of slaughter facilities across Canada, the Provincial Meat Inspection Regulation sets out construction, inspection and other requirements for provincially

licensed slaughter facilities in BC. The regulation came into force in 2004, compliance became mandatory in September of 2007 and significant changes to licence classes were made in April 2010 (BC Laws, 2004). The number of licensed slaughter plants in B.C. has increased from 12 in 2004 to 37 in 2010 (BCMHS, 2010a). In 2013 there will be a transition of responsibility for meat inspection from CFIA to the provincial governments, which may cause significant changes.

In 2009, a Meat Inspection Regulations (MIR) Transition Strategy was announced to further support operators in the transition to full licensing under the MIR. The strategy included collaboration with small rural operators to determine minimum food safety requirements and a viable licensing approach for producers in isolated areas with limited capacity to establish a fully licensed abattoir. As a part of the Transition Strategy, two new categories of licences (Class D and Class E) were introduced in April 2010 to better serve remote and rural communities (BCMHS, 2010a). Denman Island is located within the Comox Valley Regional District (island section) and small-scale producers can apply for Class E licences. Class E (Direct Sales) allows direct producer sales to consumers from the producer's farm (farm gate sales). Production is limited to 10 animal units per year (approximately 4,540 kg live weight) and the permit allows only the slaughter of the licence holder's own animals. Prior to being eligible to apply for a Class E licence, operators must complete and submit a feasibility study clearly demonstrating a lack of slaughter capacity. Applications are reviewed on a case-by-case basis and Health Canada has recently developed a Class E Feasibility Study that must be completed by all potential facilities. Producers on Denman Island can claim exceptional circumstances due to the need to travel by ferry to the closest licenced facility. Once the feasibility study has been approved potential Class E facilities must complete the SlaughterSafe training, a food safety plan, a site assessment with the local health authority and a Class D/E application form (BCMHS, 2011). Despite this change to the regulations there is no guarantee that farmers will be approved for Class E designation.

Salt Spring Island has been experiencing a similar concern. In order to deal with this issue, they investigated the possibilities of establishing a mobile abattoir on the island. In July of 2011, the Local Trust Committee approved a temporary use permit to allow construction of a mobile abattoir and cut and wrap facility (SSAA, 2012). The Salt Spring Agricultural Alliance applied for funding through the Meat Transition Assistance Program administered by the BC Small-Scale Food Processors Association (SSFPA) and were approved for \$150,000 of matching funds with a total project budget of \$350,000. The Temporary Use Permit is valid for three years and can be renewed. An option for Denman Island is to amend the Land Use Bylaw to allow for Temporary Use Permits to be issued for agricultural uses such as a mobile abattoir or other food processing. At that point, an investigation could be initiated to determine the feasibility of establishing a mobile abattoir on Denman Island for use by Hornby Island farmers as well.

SMALL FARM TAX STATUS

Concerns with the current requirements for farm status were raised repeatedly throughout the public consultation process. Currently, the Island Trust policy statement outlines the following mandate (Islands Trust, 2003):

4.1.12 Trust Council encourages the Provincial government and the British Columbia Assessment Authority to:

- retain a separate farm class to provide significant property tax incentives;
- ensure that the threshold for farm income necessary for farm class status is appropriate to agriculture within the Trust Area; and

- acknowledge that the total land area subject to the farm class may include land left uncultivated.

Despite these intentions qualification for farm class is still considered unattainable for many Denman Island farmers. Under the *Standards for the Classification of Land as a Farm Regulation*, made under the *Assessment Act*, a part of a parcel of land used for (BC Assessment, 2012):

- a) primary agricultural production;
 - b) purposes that contribute to primary agricultural production (e.g., irrigation);
 - c) a farmer's dwelling; or
 - d) the training and boarding of horses when operated in conjunction with horse rearing.
- All farm structures, including the farmer's dwelling, will be classified as Class 1 - residential.

The minimum annual income for the purposes of farm class is calculated based on the farm gate prices and are calculated as follows (BC Assessment, 2012):

- a) \$10,000 on land less than 8,000 m² (2 ac);
- b) \$2,500 on land between 8,000 m² (2 ac) and 4 ha (10 ac);
- c) on land larger than 4 ha (10 ac), you must earn \$2,500 plus five per cent of the actual value of any farm land in excess of 4 ha;
- d) \$10,000, in order to qualify unused land where the area in production makes up at least 25% of the land.

Farm gate price is the dollar value received from direct farm sales, or the value of raw primary products used for processing. In terms of livestock, it is the live weight sale price, less purchase costs, not the killed or dressed price quoted by the butcher (BC Assessment, 2012). Based on farm gate prices, the average revenue in gross farm receipts per farm is estimated at \$7,351, which is less than the \$10,000 necessary for farms on land less than 2 acres. The Islands Trust could play a role by advocating BC Assessment Authority for changes in the farm tax assessment to include the sale of value-added and agritourism products in determining primary production gross income.

Since bartering is such a common practice on Denman Island, the Islands Trust could also enter into discussions with BC Assessment on ways to value bartering with the current system. Also, efforts to raise the profitability of farms on Denman Island will also help to address this concern over the long term.

RECOMMENDATION:

12. HIRE AN AGRICULTURAL ECONOMIC SUPPORT OFFICER

Action:

- Hire an Agricultural Economic Support Officer to represent farmers; provide extension opportunities; interpret regulations; inform farmers on crop varieties and management practices; provide marketing support and promotion of Island farm products; and encourage the province to create financial deterrents, profit recapture taxes, or penalties applied to farmland that is for sale for non-agricultural land use.

Governance:

- This could be a part-time position hired through Denman WORKS!, a regional Economic Development Office, or another economic development agency.

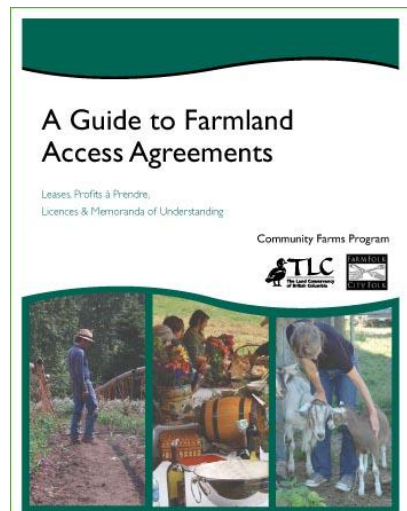
Desired Outcomes:

- Farmers are able to access information on appropriate farm practices and seed varieties that enhance revenue.
- New markets are identified for sale of Island products to further increase revenues.

A. Hire an Agricultural Economic Support Officer to represent and support farmers.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Work with the Support Officer to interpret regulations for farmers.	Work with the Support Officer to advocate for farmer needs.	Determine the feasibility of hiring a part or full-time economic support officer.	Denman WORKS!	Medium	Medium	Moderate for a part-time position, Significant for a full-time position	Denman WORKS!

LAND USE, BUSINESS, AND SUCCESSION PLANNING

Many community members expressed their concerns around the need to access information on land use agreements and farm business arrangements. Land Use Agreements such as licences, leases, profit-a-prendres, and memorandums of understanding are generally a necessity when entering into cooperative farming arrangements or when leasing land to other farmers. These documents are often difficult to produce without the expertise of lawyers. The Ministry of Agriculture (AGRI) has created agreements in the past for use by farmers, which are currently being updated. The Land Conservancy (TLC) has also produced a publication entitled *A Guide to Farmland Access Agreements*, which can be found at <http://www.farmfolkcityfolk.ca/PDFs & Docs/CFPdocs/Farmland%20Access%20Agreement%20Guide.pdf>. This publication provides sample agreements for farmers to work off and outlines the legal framework around these arrangements.



The Ministry of Agriculture also has resources on succession planning for farm families. Many organizations also offer seminars on farm succession planning. Additionally, financial institutions such as Farm Credit Canada can provide professional support for farmers looking to plan for the future.

ADDITIONAL REGULATORY RECOMMENDATIONS:

13. IMPLEMENT ZONING UPDATES THROUGH THE LAND USE BYLAW

Action:

- Update *Denman Island Land Use Bylaw No. 186 (2008)* to further support farming.
- Consider the following updates to the Land Use Bylaw:
 1. Allow Temporary Use Permits to be issued for a variety of agricultural purposes (i.e. mobile abattoir, processing facilities, etc.)
 2. Allow Temporary Use Permits to be issued for agritourism accommodation.
 3. Establish an Agricultural Enterprise Zone, outside the ALR, where comprehensive zoning could be used to encourage agricultural related businesses and services, including support services and value-added production. This Zone could include light industrial or commercial agricultural businesses for processing; therefore, situation outside of the ALR is necessary to prevent development of impermeable surfaces on ALR land.
 4. Increase height provisions for silos and grain bins of up to 41 m.
 5. Improve the dissemination of information on new setback requirements as follows:
 - The front or exterior lot line setback was changed from 30m to 10m.
 - A new setback category of “edge lot line” was added, meaning a lot line that abuts another zone, and that setback is 15m.
 - The rear or side lot line that is not an edge lot line was changed from 15m to 4.5m.
 6. Off-street parking should not have to be covered by impermeable surfaces such as hard surfaces or packed gravel for direct farm sales.
 7. Consider changing the approach to minimum lot sizes in the Agriculture zone. Since the ALC does not require a minimum lot size for subdivision in the ALR, the following provision could be inserted:

Notwithstanding the minimum lot size standards and land use policies cited in the OCP or the Zoning Bylaw, the Trust may, after due consideration, not authorize an application to the Agricultural Land Commission if the proposed subdivision or use would have a negative impact on agricultural land or the farming community even if the proposed subdivision is consistent with these minimum lot size standards or the proposed use is consistent with existing land use policies.
 8. Regulate the conversion of farmland within and outside the ALR for non-farm uses.
 9. Include provisions that make roadside stands, small scale marketing and processing, and agricultural education and research permitted uses.
 10. Create an amendment to allow a produce stand and/or farmers market to be established in zone W2 at the Denman Community Dock site.

Desired Outcomes:

- Farmers have been supported in making an income from agritourism activities.
- Negative impacts from road construction on farm properties and farming have been eliminated.
- Agricultural operations experience minimal negative impacts by development in surrounding areas.

A. Update Denman Island Land Use Bylaw No. 186 to further support farming and the <i>Denman Island Farm Plan</i> .							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Implement Land Use Bylaw updates.	Review updated Land Use Bylaw.	Review updated Land Use Bylaw.	AGRI ALC AAPC	1-3 years	High	Low	

14. AMEND THE OFFICIAL COMMUNITY PLAN

Action:

- Amend the *Denman Island Bylaw No. 185* (Official Community Plan) to further support farming.
- Consider the following amendments to the Official Community Plan:
 1. Elaborate on the current OCP policy 1 under E.4 Resources stating “In the Sustainable Resource designation: the principal uses should be agriculture and silviculture...” to include a general statement that further recognizes agriculture as the priority use for ALR and other agriculturally designed lands such as:

All uses and subdivision of Agricultural Land Reserve land, shall be in accordance with the provisions of the Agricultural Land Commission Act, regulations thereto or Orders and Policies of the Agricultural Land Commission.
 2. Review the definition of agriculture with a view to amending it to reflect the definition of “farm operation” in the *Farm Practices Protection (Right to Farm) Act*.
 3. Include road side farm stands as an allowable structure in setback areas.
 4. Include a policy that discourages the creation of panhandle lots within the ALR because of the withdrawal of land from farm production for a driveway area.
 5. Adopt a policy to support proposals for consolidation of two or more agricultural lots into a single larger parcel which may be more viable for agricultural purposes and will contribute to conserving the long-term agricultural character of the community.
 6. Include provisions for the separation and buffering of trails from adjoining agricultural areas and for early consultation with affected landowners. Roads and corridor routes, including recreational trail systems through the ALR require ALC approval.
 7. The LTC could consider adopting “no net loss” policies to farmland quality and quantity where proposed exclusions would have to be matched by inclusions of a similar or larger sized property located specifically on Denman Island with a similar or greater agricultural potential.
 8. Review DPAs and amend where necessary to ensure that agricultural uses in the ALR are not effectively prohibited as a consequence of protecting other values.
 9. Improve the dissemination of information on new Seasonally-Flooded Agricultural Fields (SFAF) policies in the Denman Island Land Use Bylaw, 2008, Bylaw No. 195, Amendment No 1. 2010.
 10. Conduct a review of the existing OCP policies regarding non-farm use and subdivisions within the ALR with a view to clarifying and strengthening the intent of the policies in order to enable staff and trustees to better evaluate each proposal against the agricultural goals of the community.
 11. Establish a policy to support alternative land tenure agreements on farmland such as leasehold subdivisions for producers who wish to lease their land for longer than 3 years.

Desired Outcomes:

- Farming in the region has been enhanced and farmland has been protected from nuisance complaints.
- Farmland has been protected from negative impacts from neighbouring properties.
- Subdivision of farmland and land adjacent to farmland has been discouraged.

A. Amend the Denman Island Bylaw No. 185 (Official Community Plan) to further support farming and the Denman Island Farm Plan.							
Local Government	Farmers	Residents & Community Groups	Other Key Players	Timeframe	Priority	Funding Requirements	Potential Funding Sources
Implement OCP amendments	Review updated OCP.	Review updated OCP.	AGRI ALC AAPC	1-3 years	High	Low	

MONITORING AND EVALUATION STRATEGY

A total of 14 recommendations have been offered to enhance and preserve farming on Denman Island with some suggestions for key players and possible funding sources to support the implementation of each recommendation. The bulk of the implementation has been assigned to local government staff and the Agriculture Advisory Planning Commission (AAPC), but expertise to contribute to the plan is available in the community. Since the AAPC will likely be preoccupied with establishing their new terms of reference and working on projects assigned by the Local Trust Committee, it is important to identify an Implementation Body to guide the monitoring and evaluation strategy of the plan. Key functions of this Implementation Body could be to:

- Determine membership and mandate;
- Develop an initial work plan to carry out the recommendations;
- Assist with coordinating key players and community members;
- Identify additional sources of funding not presented in this plan and guide fundraising;
- Advertise the plan to the Denman Island Community;
- Monitor the progress of the plan and deliver evaluation reports; and
- Review and revise the work plan on an annual basis or as needed.

The Implementation Body could be developed with some of the key players from the existing Agriculture Plan Steering Committee and a newly formed Agricultural Advisory Planning Commission. Many of the actions put forth in the Farm Plan require human and financial resources beyond the scope and capability of the Local Trust Committee. Therefore, the role of implementing and monitoring the plan should be a shared responsibility. This Implementation Body should consist of approximately 8 to 10 members from the following groups:

- Islands Trust;
- Denman Island Local Trust Committee;
- Denman WORKS!;
- Denman Conservancy Association (DCA);
- Denman Island Residents' Association (DIRA);
- Ministry of Agriculture;
- Hornby/Denman Growers and Producers Alliance; and
- Other representatives, as required.

The first role of the Implementation Body would be to create a work plan for the high priority recommendations and actions, ideally within six months of the approval of the Farm Plan. It is recommended that the work plan span a two-year period (to address all High Priority Short-Term recommendations) and identify necessary resources. At the end of each year the Implementation Body could provide an annual report to the Local Trust Committee that indicates the status and progress of the implementation plan.

To help guide the work of the Implementation Body a monitoring and evaluation strategy has been developed with measurable indicators of success. The Investment Agriculture Foundation (IAF), the major funding agency for agriculture plans and strategies in BC, requires methods of tracking projects to justify ongoing funding support. A series of short and long term performance indicators have been identified to help determine the progress of the Farm Plan.

Short term performance indicators include:

- Creation of an Implementation Body to implement the *Denman Island Farm Plan*
- Adoption of the *Denman Island Farm Plan* by the Denman Island Local Trust Committee
- Establishment of an Agricultural Advisory Planning Commission
- Amendments to the *Denman Island Bylaw No. 185 (2008) Official Community Plan (OCP)*
- Updates to the *Denman Island Land Use Bylaw No. 186 (2008)*
- Update Land Use Inventory maps and refine them for future use

Long term performance indicators include:

- Use of the *Denman Island Farm Plan* to guide local land-use decisions
- Increased processing facilities on Denman Island
- Preservation and enhanced use of farmland within and outside of the ALR
- Enhanced farm profitability through new marketing opportunities
- Increased cooperation and support amongst farmers
- Increased consumption of locally-produced food and farm products by Denman Island residents
- Recognition and support for local farming by the Denman Island community

Further measurable indicators of success can be offered for the long term performance indicators. An evaluation mechanism for each indicator has been proposed to help guide the process in future years.

PERFORMANCE INDICATOR	MEASURABLE INDICATORS OF SUCCESS	EVALUATION MECHANISM
Use of the <i>Denman Island Farm Plan</i> to guide local land-use decisions	<ul style="list-style-type: none"> • Amendments suggested in the Farm Plan have been applied to the Denman Island Bylaw No. 185 (Official Community Plan). • Updates suggested in the Farm Plan have been applied to the Denman Island Land Use Bylaw No. 186. 	<ul style="list-style-type: none"> • Review the OCP to ensure inclusion of suggestions by 2015. • Review the Land Use Bylaw to ensure inclusion of suggestions by 2015.
Increased processing facilities on Denman Island	<ul style="list-style-type: none"> • Number of products grown and processed on Denman Island has increased. • Warehousing options for storage of farm products has increased. 	<ul style="list-style-type: none"> • Track the number of processing facilities available on Denman Island. • Track the number and type of value-added food and farm products created on Denman Island.
Preservation and enhanced use of farmland within and outside of the ALR	<ul style="list-style-type: none"> • The number of hectares has been maintained or increased in the ALR. • Total farm area has increased. • Number and diversity of farms have increased. • Availability of farm products has been diversified and increased in number. • The number of alternative land use agreements has increased. 	<ul style="list-style-type: none"> • Use the Farm Plan Land Use Inventory as a benchmark for level of production and total farm area. • Conduct another land use inventory in 2017. • Conduct another survey of producers in 2017 to determine farm area, level of production and land use agreements.

PERFORMANCE INDICATOR	MEASURABLE INDICATORS OF SUCCESS	EVALUATION MECHANISM
<p>Enhanced farm profitability through new marketing opportunities</p>	<ul style="list-style-type: none"> • Revenue per farm and per acre has increased. • Number and type of markets for sale of agricultural products has increased. 	<ul style="list-style-type: none"> • Survey producers to determine an increase in sales and revenue in 2017. • Use the Farm Plan as a benchmark of roadside retail sales and on-farm marketing opportunities for farm products. • Conduct a survey of marketing opportunities in 2017 to gauge progress.
<p>Increased cooperation and support amongst farmers</p>	<ul style="list-style-type: none"> • Cooperation in marketing, selling and pricing products has increased. • Joint purchasing of inputs amongst farmers has increased. • Ability of local restaurants, cafes, and bistros to easily acquire local ingredients has increased. 	<ul style="list-style-type: none"> • Survey producers in 2017 to determine level of cooperation.
<p>Recognition and support for local farming by the Denman Island community</p>	<ul style="list-style-type: none"> • Sales of local farm products by Denman Island residents and local businesses have increased. • Central year-round farmers market location has been established. • The Local Food Directory has been updated with a map and online content 	<ul style="list-style-type: none"> • Survey of consumers on Denman Island to determine support of local agriculture and level of sales in 2017. • Evidence of an online Local Food Directory that is easily accessible through search engines.

POTENTIAL FUNDING SOURCES

In order to implement the 14 recommendations presented above, funding will need to be sourced. While some funding may be generated through the Islands Trust, outside sources of funding have been identified to support specific initiatives within the implementation plan as noted above. The Islands Trust has a staff member that is available to search out and apply for grants on behalf of Local Trust Committees (LTC) or the Trust as a whole. Projects that are initiated by the LTC or in partnership with community groups are eligible for assistance. More detail on other specific funding programs is provided below.

COMOX VALLEY REGIONAL DISTRICT – GRANTS-IN-AID

As Denman Island is within the Comox Valley Regional District (CVRD), organizations are eligible to apply for the CVRD's Grants-in-Aid program. Funding for these grants is derived from the tax income generated by the regional district and applications are reviewed on an annual basis. Criteria for funding is as follows:

- There must be a demonstrated need for the service/project within the community and the organization must demonstrate a financial need;
- Grants must not be provided to an "industrial, commercial, or business undertaking";
- The grant does not subsidize activities that are the responsibility of senior governments;
- Grants should not be made to other local governments; and
- Grants should not be used to augment tax funded functions (i.e. volunteer fire departments, community halls, etc.) when the grant request is for a service or item that is included in the establishment bylaw for that specific local service area.

Any non-profit organization, to which the giving of a Grant-in-Aid will benefit the entire community, may apply. More information and the application form can be found at:

http://www.comoxvalleyrd.ca/uploadedfiles/administration/grants_in_aid_guide_and_form.pdf.

COMOX VALLEY COMMUNITY FOUNDATION

The Comox Valley Community Foundation is a charitable organization that pools charitable gifts from donors to create endowment funds and uses the investment income to make grants (CVCF, 2012). The Comox Valley Community Foundation supports a wide variety of initiatives including health, education, social services to arts, culture, and the environment. The Foundation has supported a number of initiatives on Denman Island with grants of up to \$15,000. Registered charities can apply for funding for projects and activities that occur in the Comox Valley and are of direct benefit to local residents. The deadline for applications is October 15th each year. For more information please visit: <http://www.cvcfoundation.org/>.

COASTAL COMMUNITY CREDIT UNION

The Coastal Community Credit Union has donation and sponsorship options that can be accessed to support initiatives within their geographic range (CCCU, 2012). The Branch Investment Program through Coastal Community is available each year. One contribution under \$1,000 per organization can be made per budget year, which includes financial or in-kind support, to registered charities or recognized community not-for-profit groups

that provide services in the areas of arts and culture, community service, economic development, education, environment, health, sports and recreation, or youth.

The Coastal Spirit Fund is open to charities and non-profit groups looking for financial support that exceeds \$1,000. These requests are accessed once per year and are reviewed in cooperation with the Community Connection Councils in each region. More information on these funding programs can be found at:

<https://www.cccu.ca/Personal/InOurCommunities/CommunityPrograms/DonationsAndSponsorships/>

UNION BAY CREDIT UNION

The Union Bay Credit Union has been supportive of activities on Denman Island in the past. Requests for small amounts of funding can be made through their Member to Community fund (UBCU, 2009). For more information and contacts please visit: <http://www.ubcu.ca/>.

INVESTMENT AGRICULTURE FOUNDATION OF BC (IAF)

The Investment Agriculture Foundation (IAF) strategically invests federal and provincial funds to support innovative projects that benefit the agri-food industry in BC (IAF, 2012). IAF offers a wide range of funding for industry groups and municipalities in funding categories such as animal industries, plant industries, processing industries, environmental issues, emerging sectors and other. General funding is available for strategies, plans, programs and projects that push competitive boundaries and lead to sector-wide growth in various industries. Start-up funding is not available for individuals, but specific funding programs are available within each category to deal with specific industry issues and enhance the sectors. Funding programs that may be relevant to Denman Island include:

- Greenhouse Vegetable Strategic Initiative
- Tree Fruit Innovation Initiative
- Agriculture Environment and Wildlife Fund

Information on each of these initiatives can be found on the IAF website at

http://www.iafbc.ca/funding_available.

The ***Food and Beverage Processing Initiative*** is of particular interest on Denman Island to address the key issue of inadequate processing infrastructure. This initiative of the Agri-Food Future Fund has allocated \$1.5 million to assist with the development of the food, beverage and nutraceutical processing industry. Funding is available for projects that match one or more of these strategic priorities (IAF, 2012):

- Enhance the competitive position of BC food and beverage processors;
- Build BC's reputation as a leader in health and lifestyle-oriented products;
- Build business relationships and collaboration with value chain partners; and
- Enhance communications and coordination among industry stakeholders.

Another funding program that could be beneficial for Denman Island is the ***Emerging Sectors Initiative***. IAF classifies an emerging sector as those that have emerging business opportunities; leadership, vision and capacity to increase sectoral contributions to the provincial economy and provincial five-year annual average market receipts of less than \$10 million (IAF, 2012). Examples of emerging sectors include: small scale/lot agriculture, natural health products, aboriginal agriculture, agritourism and direct farm marketing, apiculture, small-scale food

processing and more. Projects that address gaps in scientific knowledge, technology adaptation and transfer, skills, business development, collaboration with partners and pre-commercialization exploration may be eligible.

Other specific funding programs pertinent to Denman Island are the ***Islands Agri-Food Initiative*** and the ***Local Government Agriculture Planning Program***. The Islands Agri-Food Initiative is available to encourage the development of a viable and sustainable agri-food sector on Vancouver Island, Powell River and the Gulf Islands. Projects must support the following strategic priorities (IAF, 2012):

- Enhance market development and promotion of the agri-food industry;
- Increase stakeholder knowledge base in areas such as communications, economic potential, statistical data, marketing and product development;
- Facilitate the development of strategic partnerships; and
- Support increased agri-food processing as a catalyst for rural community development.

The Local Government Agriculture Planning Program is available for funding to implement Agriculture Area Plans and Strategies at 50% matching costs.

GROWING FORWARD AGRICULTURAL POLICY FRAMEWORK

The Growing Forward Agricultural Policy Framework, under Agriculture and Agri-Food Canada (AAFC), is a program to increase the profitability of the agricultural sector in Canada. The three strategic outcomes that are intended through this program are (AAFC, 2011):

1. A competitive and innovative sector
2. A sector that contributes to society's priorities
3. A sector proactive in managing risks

Programs that are relevant to farmers on Denman Island are the: Agri-Environmental Risk Assessment/On-Farm Sustainable Agricultural Practices (BMPs) Program, Enterprise Infrastructure Traceability Program, Farm Business Advisory Services Program, Food Safety System Implementation (FSSI) (Processor and Producer) Programs, Community Development Program, Building Rural and Northern Partnerships Program and the Co-operative Development Initiative (AAFC, 2011).

Agri-Environmental Risk Assessment (EFPs) / On-Farm Sustainable Agricultural Practices (BMPs)

The intent of this program is to enhance environmental farm stewardship and raise awareness amongst producers. To accomplish this, a broad-based, voluntary, staged and producer driven Environmental Farm Plan (EFP) Program was developed. The first phase of this program involves the creation of a plan with a planning advisor at no cost to the producer. Once actions have been identified, some financial incentives exist for implementation of these actions. This program is administered by the BC Agricultural Research and Development Corporation (ARDCorp).

Enterprise Infrastructure Traceability Program

This program is designed to assist primary and secondary agri-food operations in BC to purchase and install traceability infrastructure/systems to demonstrate "movement of information" of their agri-food products from receiving to shipping. This program is useful for those involved in certification such as the Certified Organic or Biodynamic programs.

Farm Business Advisory Services Program

There are two tiers to this program, which provides support in increasing farm profitability. The first tier provides consulting services to develop a basic farm financial assessment at only \$100 to the producer and tier two covers 85% of the costs of consulting services for specialized business planning to adopt farm business management practices in strategies in nine management areas including: business strategy, success planning, marketing strategy, business structure, production economics, risk assessment, human resources, value-added ventures and financial management.

Food Safety System Implementation (FSSI) (Processor) Program

Administered by the BC Small-Scale Food Processor Association (SSFPA), the objective of this program is to increase the number of non-federally registered food processing operations with Hazard Analysis Critical Control Point (HACCP) food safety systems in their operations.

Food Safety System Implementation (FSSI) (Producer) Program

Administered by ARDCorp, the objective of this program is to facilitate early adoption of national On-Farm Food Safety (OFFS) systems by producers by offering financial incentives.

Community Development Program, Building Rural and Northern Partnerships

This program offers funding to assist rural and northern regions to find information and access/develop expertise, tools and processes to respond to challenges and opportunities in their regions and become more competitive through regional collaboration.

Co-operative Development Initiative

This initiative, delivered by the Government of Canada and the co-operative sector, is designed to help people develop co-ops and to research and test innovative ways of using the co-operative model. Applications are currently being accepted until September 30, 2012 and all activities must be complete by March 31, 2013.

REAL ESTATE FOUNDATION (REF)

The Real Estate Foundation of BC (REF) is a non-profit corporation that receives interest from pooled or “unassigned” trust deposits held by real estate brokers and uses the funds to support real estate related issues such as education, research, law reform and activities intended for the public or professional good including environmental issues related to land and water (REF, 2012). The mission of the Foundation is “to support sustainable real estate and land use practices for the benefit of British Columbians.” The three grants program focus areas are the Built Environment, Fresh Water Sustainability and Sustainable Food Systems, with the most effective projects leading to on-the-ground change.

The ***Sustainable Food System*** focus area involves initiatives that remove barriers or contribute to new approaches and practices in sustainable food systems in BC. These could include land use planning, policy, regulation, design, mapping and feasibility studies within the urban, peri-urban and rural areas of BC. The foundation is particularly interested in (REF, 2012):

- Integration of sustainable food systems into community planning, urban design, and neighbourhood planning;
- Regional approaches to food systems planning;

- Inter-relationships between food systems, ecosystems, natural capital, and the built environment; and
- Tools, policies, and legal mechanisms to support access to land for all activities required in a sustainable food system.

More information and past projects can be found on REF's grants website at <http://www.realestatefoundation.com/grants>.

VANCOUVER ISLAND HEALTH AUTHORITY (VIHA)

The Vancouver Island Health Authority (VIHA) provides health care to people on Vancouver Island, the islands of the Georgia Strait, and the mainland communities between Powell River and Rivers Inlet (VIHA, 2009). In partnership with the Ministry of Health, VIHA offers support for locally-based food security initiatives through the **Community Food Action Initiative (CFAI)** to increase food security for island communities. Proposals are accepted in late fall of each year for projects that contribute to (VIHA, 2009):

- Increased awareness about food security;
- Increased access to local healthy food;
- Increased food knowledge and skills;
- Increased community capacity to address local food security; and
- Increased development and use of policy that supports community food security.

Examples of past projects include community gardens, farmers' markets, community planning, support for local food production, healthy food in public buildings, capacity building activities, community food assessments and local food charters and policies. This funding could be used to raise awareness of local food on Denman Island and fund initiatives such as a community harvest gleaning program, Community Supported Agriculture (CSA) program and farm to school programming. More information can be found on the VIHA website at http://www.viha.ca/mho/food/food_security/Community+Food+Action+Initiative.htm.

VANCOUVER FOUNDATION

The Vancouver Foundation is the largest of Canada's 180 community foundations. Endowment funds are set up that can be dedicated to charitable purposes and a portion of the income generates from the fund is donated as grants to eligible charities. The Vancouver Foundation supports growth and innovation through project-based grants for new initiatives that are community self-directed and lead to measurable and sustainable impacts.

Applications must: demonstrate commitment from applicants and partner organizations, link to the organizations' mandate and strategic plan, build upon community strengths, show evidence of collaboration, funded by 50% or more from other sources, involve through affected by the proposal in the development of the proposal, and use, enhance, mobilize or expand on the skills, capacities and assets of local people and communities.

Only registered charities are eligible to apply for funding the following applicable project areas: animal welfare; arts and culture; children, youth and families; community-based health research; education; environment; health and social development; and youth philanthropy. The Vancouver Foundation has previously supported initiatives on Denman Island. For more information please visit:

<http://www.vancouverfoundation.ca/grants/index.htm>.

VANCITY CREDIT UNION

Although Vancity does not currently fund projects on Denman Island (Denman Island is outside of their geographic boundary,) the geographic range is reviewed on an ongoing basis and as requests for funding are received from other communities.

Vancity Credit Union offers a variety of funding programs for charitable, non-profit organizations. The **Community Project Grants** are offered three times per year for up to \$10,000 for projects that focus on people, planet and places. These projects must show people how to build their wealth, create a sustainable place to live or invest for positive change in the community (Vancity, 2012). Projects that allocate resources to marginalized individuals and groups and support them in decision making, program development and delivery are preferred. Grants of this nature could be used to support workshops on agricultural topics such as indigenous food sovereignty and food production and preservation skills. More information can be found at:

<https://www.vancity.com/MyCommunity/NotForProfit/Grants/CommunityProjectGrants/>.

Vancity Community Foundation, established in 1989, works towards enriching community through gathering together community resources for support of non-profit social enterprises, community owned real estate and collaborative approaches to change (Vancity, 2012):

- [Social Enterprise Development](#): Support of non-profit organizations to develop and operate social enterprises as a tool to meet a range of social, economic or environmental goals in a financially sustainable way.
- [Community Owned Real Estate](#): Investment in initiatives that house individuals and organizations, increase community ownership and assets, and build opportunities for shared spaces and resources.
- [Collaboration and networks](#): Facilitation of collective initiatives that enhance the capacity of organizations to work together towards achievement of shared goals and purposes that benefit community.

The development of agricultural social enterprises, such as food and beverage processing, could be something to investigate to further the sector on Denman Island. More information can be found here: http://vancitycommunityfoundation.ca/s/strategic_programs.asp.

Vancity also recently started a **Small Growers Loan** program. The program was established to “help stimulate a viable and sustainable local food system”. Business loans up to \$75,000 are available to small growers, who are trying to get off the ground. Small growers are characterized as:

- Farming under 50 acres in a rural or urban setting
- An individual owner, co-operative owner or leaseholder

Loan approval is based on character, farming training or experience, skills and knowledge and the potential of the business plan. More information can be found at:

<https://www.vancity.com/MyBusiness/BusinessFinancing/smallbusiness/SmallGrowersFund/>

FARM CREDIT CANADA (FCC)

Farm Credit Canada (FCC) is the leading national agricultural lender. Their mission is “to enhance rural Canada by providing specialized and personalized business and financial services and products to farming operations, including family farms, and to those businesses in rural Canada, including small and medium—sized businesses,

that are businesses related to farming” (FCC, 2012). FCC offers financing and loans for both producers and agribusinesses, as well as start-up loans for young farmers.

FCC also offers funding for non-profit organizations for capital projects between \$5,000 and \$25,000 through the FCC AgriSpirit Fund. Past projects have included hospitals and medical centres, childcare facilities, fire and rescue equipment, playgrounds, food banks, libraries, recreation centres and community gardens (FCC, 2012). More information about this fund can be found at:

http://www.fcc-fac.ca/en/AboutUs/Responsibility/agrispiritfund_e.asp.

EVERGREEN

Evergreen was established in 1991 with the mandate to engage “Canadians in creating and sustaining dynamic outdoor spaces – in schools, communities and homes” (Evergreen, 2012). Evergreen is the leading national funder and facilitator of local, sustainable greening projects in schoolyards, parks and communities through the Toyota Evergreen Learning Grounds Grants, Evergreen Common Grounds Grants and the Walmart-Evergreen Green Grants.

The **Toyota Evergreen Learning Grounds Grants** provide funding for schools to create outdoor classrooms and food gardens. Schools can apply directly for \$500 to \$3,500 twice per year. The Denman Island Community Education Society could apply for this funding to revitalize and expand the existing school garden.

The **Walmart-Evergreen Green Grants** are available for non-profit organizations looking to employ community-based restoration and stewardship initiatives in urban and urbanizing areas such as naturalization, restoration and stewardship and community food gardens. Local Denman Island community groups could apply for funding up to \$10,000 to construct community gardens in the town centre if desired with support from the Islands Trust.

FARM TO SCHOOL (F2S) PROGRAM

The Farm to School (F2S) Salad Bar Program was originally established in BC as an initiative of the BC Healthy Living Alliance (BCHLA) and is managed and administered by the Public Health Association of BC (PHABC). The goal of the program is to connect schools with local farms to serve healthy meals in school cafeterias and classrooms. The objectives of the program are:

- To increase fruit and vegetable consumption amongst participating school aged children;
- To increase student knowledge about the local food system, local foods, and nutritional health;
- To enhance student skills in the areas of food production, processing and serving;
- To strengthen local farm, school, and aboriginal partnerships;
- To strengthen the local food economy; and
- To develop promising practice models that are self-financing, ecofriendly and have the potential to be implemented elsewhere.

The F2S Program does not offer direct financial support, they do provide numerous instructional resources on their website and support of their program staff in establishing new F2S Programs. More information on this program can be found at:

<http://www.phabc.org/modules.php?name=Farmentoschool>.

DENMAN WORKS!

Denman WORKS!'s mission is "committed to improving the socio-economic health of Denman Island by supporting community organizations whose work is compatible with that mission" (Denman WORKS!, 2012). Denman WORKS! operates as a Society under an Agreement with their funding partner, the Comox Valley Regional District to leverage the tax-funded budget to support the community of Denman Island. They offer a variety of methods of support including (Denman WORKS!, 2012):

- Community Project Grants;
- Specialist Grant Facilitators;
- One-off, small grants;
- Educational workshops;
- Informative website;
- Resource Centre and Job Board; and
- Support of Society Directors with commercial and governmental backgrounds.

Community Project Grants may be allocated towards start-up wages, supplies, materials and other expenses for non-profit organizations on Denman Island. More information can be found at:

<http://denmanworks.wordpress.com/community-grants/denman-works-community-project-grants/>.



REFERENCES

- AAFC. 1998. *The Canadian System of Soil Classification*. 3rd Edition. Agriculture and Agri-Food Canada. <http://sis.agr.gc.ca/cansis/taxa/cssc3/intro.html>
- AAFC. 2010. Agriculture and Agri-Food Canada. Accessed January 2012. http://www.agr.gc.ca/index_e.php
- AAFC. 2012. Agroforestry. Accessed May 2012. <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1177431400694&lang=eng>
- Agritourism World. 2012. *What is agritourism?* Accessed January 2012. <http://www.agritourismworld.com/discover.php>
- ALC. 1996. *Subdivisions Near Agriculture – A Guide for Approving Officers*. Agricultural Land Commission and BC Ministry of Agriculture Food and Fisheries.
- ALC. 1997. *Planning Subdivisions Near Agriculture*. Agricultural Land Commission and BC Ministry of Agriculture Food and Fisheries.
- ALC. 2003. *Permitted uses in the ALR: Agritourism Accommodation*. Policy #5. Agricultural land commission.
- ALC. 2005. *ALR and Community Planning Guidelines*. Agricultural Land Commission.
- ALC. 2010. *Agricultural Land Commission*. Accessed January 2012. http://www.alc.gov.bc.ca/legislation/legislation_main.htm
- BC Assessment. 2012. *Fact Sheet: Classifying Farm Land*. Accessed January 2012. <http://www.bcassessment.bc.ca/public/Fact%20Sheets/Classifying%20Farm%20Land.aspx>
- BCCDC. 2010. *BC Centre of Disease Control Food Safety Initiative*. <http://www.bccdc.ca/foodhealth/foodguidelines/FoodSafetyInitiative.htm>
- BCEMB. 2010. *Grading Stations*. BC Egg Marketing Board. Accessed January 2012. <http://www.bcegg.com/files/graders.php>
- BC Laws. 2003. *Community Charter*. Accessed December 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/03026_00
- BC Laws. 2004. *Food Safety Act: Meat Inspection Regulation*. Accessed December 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_349_2004
- BC Laws. 2008. *Agricultural Waste Control Regulation*. Accessed December 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_131_92

- BCMAFF. 1998. *Guide for Bylaw Development in Farming Areas*. BC Ministry of Agriculture, Food, and Fisheries.
- BCMAL. 2007. *The British Columbia Agriculture Plan: Growing a Healthy Future for BC Families*. BC Ministry of Agriculture and Lands.
- BCMAL. 2010. *Ministry of Agriculture and Lands*. Accessed December 2011. <http://www.gov.bc.ca/al/>
- BCMCSGD. 2010. *Ministry Service Plan*. Accessed December 2011. <http://www.bcbudget.gov.bc.ca/2010/sp/pdf/ministry/cd.pdf>
- BCMHS. 2010. *Ministry of Health Services: About BC's Health System*. Accessed December 2011. <http://www.health.gov.bc.ca/navigation/system.html>
- BCMHS. 2010a. *A new graduated approach for meat production and processing in BC*. Accessed December 2011. <http://www.health.gov.bc.ca/protect/meat-regulation>
- BCMHS. 2011. *Class E Feasibility Study*. Accessed January 2012. <http://www.health.gov.bc.ca/protect/meat-regulation/pdf/feasibility-study.pdf>
- BCMMSB. 2010. *About the BC Milk Marketing Board*. Accessed January 2012. <http://bcmilkmarketing.worldsecuresystems.com/about>
- BCMSE. 2010. *Ministry of Environment: Environment Protection Division*. Accessed December 2011. <http://www.env.gov.bc.ca/wepd/>
- BCMSE. 2010a. *Riparian Areas Regulation*. Accessed December 2011. http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html
- BCMPA. 2012. *BC Milk Producers Association*. Accessed January 2012. <http://bcmilkproducers.ca/>
- CCCU. 2012. *Coastal Community Credit Union: Donations and Sponsorship*. Accessed May 2012. <https://www.cccu.ca/Personal/InOurCommunities/CommunityPrograms/DonationsAndSponsorships/>
- CFIA. 2010. *Canadian Food Inspection Agency*. Accessed December 2011. <http://www.inspection.gc.ca/english/agen/agene.shtml>
- Commission de la protection du territoire agricole. 1996. *Loi sur la protection du territoire et des activités agricoles*. Accessed December 2011. <http://www.cptaq.gouv.qc.ca/index.php?id=7>
- Curran, D. 2005. *Protecting the Working Landscape for Agriculture: A Smart Growth Direction for BC Municipalities*. West Coast Environmental Law.
- Curran, D. & Stobbe, T. 2010. *Local Government Policy Options to Protect Agricultural Land and Improve the Viability of Farming in Metro Vancouver*. Metro Vancouver.

- CVCF. 2012. *Comox Valley Community Foundation*. Accessed May 2012. <http://www.cvcfoundation.org/>
- CVRD. 2010. *Proposed Official Community Plan – Bylaw 120*. Accessed December 2011. http://www.comoxvalleyrd.ca/section_rgs/content.asp?id=5665&parent=71&sub_collection=73
- CVRD. 2011. Accessed December 2011. <http://www.comoxvalleyrd.ca/>
- Day, J.H., Farstad, L. and Laird, D.G. 1959. *Soil Survey of Southeast Vancouver Island and Gulf Islands, British Columbia*. Report No. 6 of the British Columbia Soil Survey. Research Branch, Canada Department of Agriculture in co-operation with University of British Columbia and the BC Department of Agriculture.
- Denman WORKS!. 2012. *Community Project Grants*. Accessed March 2012. <http://denmanworks.wordpress.com/community-grants/denman-works-community-project-grants/>
- DCLTA. 2012. *Denman Community Land Trust Association*. Accessed March 2012. <http://www.denmanaffordablehousing.org/DCLTA/Welcome.html>
- DICES. 2012. *Denman Island Community Education Society*. Accessed January 2012. <http://denmanprograms.wordpress.com/>
- DFO. 2010. *Department of Fisheries and Oceans*. Accessed December 2011. <http://www.dfo-mpo.gc.ca/index-eng.htm>
- Dieticians of Canada. 2010. *Healthy Eating and Food Security – Promising Strategies for BC*.
- Evergreen. 2012. *Grants Available*. Accessed March 2012. <http://www.evergreen.ca/en/funding/grants/>
- Farm Assessment Review Panel. 2009. *2009 Report*. BC Farm Assessment Review Panel.
- Farm Assessment Review Panel. 2009. *Farm Assessment Review Panel*. Accessed December 2011. <http://www.farmassessmentreview.ca/>
- HC. 2010. *Health Canada*. Accessed December 2011. <http://www.hc-sc.gc.ca/ahc-asc/activit/about-apropos/index-eng.php>
- IAF. 2012. *Funding Available*. British Columbia Investment Agriculture Foundation. Accessed March 2012. http://www.iafbc.ca/funding_available/programs
- Isbister. W. 1976. *My Ain Folk*. Denman Island 1875-1975. E.W. Bickle Ltd. Comox Valley.
- Islands Trust. 2004. *Policy Statement*. Accessed September 2011. <http://www.islandstrust.bc.ca/tc/pdf/orgpolstatement.pdf>
- Islands Trust. 2008. Accessed September 2011. <http://www.islandstrust.bc.ca/>

- Islands Trust. 2008a. *Denman Island Official Community Plan – Bylaw 191*. Accessed September 2011. <http://www.islandstrust.bc.ca/ltc/de/pdf/debylbaseocp00185.pdf>
- Islands Trust. 2008b. *Denman Island Land Use Zoning – Bylaw 186*. Accessed September 2011. <http://www.islandstrust.bc.ca/ltc/de/pdf/debylbaselub0186.pdf>
- Islands Trust. 2009. *Drainage Areas of the Islands Trust (Draft)*.
- Islands Trust. 2010. *Staff Report: Land Use Bylaw amendment to address “seasonally flooded agricultural fields”*. Accessed December 2011. <http://www.islandstrust.bc.ca/ltc/de/pdf/destrptfloodagfieldsoct082010.pdf>
- Kenk and Sondheim. 1987. *The BC Ministry of Environment and Parks Thematic Mapping Geographic Information System*. CAPAMP. Volume 1: Data entry and validation procedures for soil, agriculture capability, surficial geology and the all-purpose entity. MOEP Manual 10. Surveys and Resource Mapping Branch, Ministry of Environment and Parks.
- Keser, N. and D. St. Pierre. 1973. *Soils of Vancouver Island: A Compendium*. BC Forest Service, Research Division. <http://www.for.gov.bc.ca/hfd/pubs/docs/Mr/Scanned-Rn/Rn034-Rn066/Rn056.pdf>
- Lifecycles. 2012. *Victoria Fruit Tree Project*. Accessed January 2012. http://lifecyclesproject.ca/initiatives/fruit_tree/
- Liteanu, E. 2003. *The role of aquifer heterogeneity in saltwater intrusion modelling*, Saturna Island, BC. MSc thesis, Simon Fraser University, Vancouver BC.
- LTSA. 2010. *Land Title and Survey Authority of BC*. Accessed November 2010. <http://www.ltsa.ca/about-the-ltsa/introduction>
- Metro Vancouver. 2010. *Metro Vancouver Draft Regional Food System Strategy*.
- MWLAP. 2006. *Riparian Areas Regulation Implementation Guidebook*. BC Ministry of Water, Land, and Air Protection.
- Natural Resources Canada. 2007. Accessed March 2012. <http://www.nrcan.gc.ca/earth-sciences/climate-change/community-adaptation/assessments/132>
- Neilsen, D., Koch, W., Merritt, W., Frank, G., Smith, S., Alila, Y., Carmichael, J., Neale, T., and R. Welbourn. 2004. *Risk assessment and vulnerability – case studies of water supply and demand*. In: Expanding the dialogue on climate change and water management in the Okanagan Basin, BC. S. Cohen, D. Neilsen, and R. Welbourn (Eds.). Government of Canada, p. 115-135.
- Ontario Municipal Affairs and Housing. 2005. *The Ontario Greenbelt Act*. Accessed December 2011. <http://www.mah.gov.on.ca/Page187.aspx>

- PHSA. 2008. *A Seat at the Table: Resource guide for local governments to promote food secure communities*. Provincial Health Services Authority.
- Preston. S.C. 1976. *A Study of the Agricultural Resources and Potentials of the British Columbia Gulf Islands*. Prepared for the Islands Trust.
- REDI. 2010. *Denman Island Local Foods Directory 2010*. Renewable Energy Denman Island (REDI).
- REF. 2012. *Grants*. Accessed March 2012. <http://www.realestatefoundation.com/grants>
- Rodenhuis, D., Bennett, K.E., Werner, A., Murdock, T.Q., and D. Bronaugh, 2007. *Hydro-climatology and future climate impacts in B.C.* Pacific Climate Impacts Consortium.
- RSBC. 1996. *BC Local Government Act*. Accessed September 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96323_03
- RSBC. 1996a. *Right to Farm Act (Farm Practices Protection Act)*. Revised Statutes of BC. Accessed September 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96131_01
- RSBC. 1996b. *BC Assessment Act*. Accessed September 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96020_01
- RSBC. 1996c. *Land Title Act*. Accessed September 2011. http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96250_00
- Runka. G. 1973. *Methodology, Land Capability for Agriculture – BC Land Inventory*. BC Department of Agriculture.
- SSAA (Salt Spring Agricultural Alliance). 2012. *Plan to Farm*. http://plantofarm.org/Current_Projects.php
- Smith. B. 1998. *Planning for Agriculture*. Agricultural Land Commission.
- Statistics Canada. 1996. *Census of Agriculture, Farm Data and Farm Operator Data*.
- Statistics Canada. 2001. *Census of Agriculture, Farm Data and Farm Operator Data*. <http://www.statcan.gc.ca/pub/95-629-x/4/4123931-eng.htm>.
- Statistics Canada. 2006. *Census of Agriculture, Farm Data and Farm Operator Data*. catalogue no. 95-629-XWE. <http://www.statcan.gc.ca/pub/95-629-x/4/4123931-eng.htm>
- TLC. 2009. *BC's Farming and Food Future: Local Government Toolkit for Sustainable Food Production*. Community Farms Program. The Land Conservancy of British Columbia.
- TLC. 2012. *Agriculture Programs*. Accessed March 2012. <http://blog.conservancy.bc.ca/agriculture/programs/>

Tourism BC. 2010. *Culture and History of Denman Island*. Accessed December 2011. <http://www.hellobc.com/en-CA/CultureandHistory/Denman-Island.htm>

Turner, N. 2005. *The Earth's Blanket: Traditional Teachings for Sustainable Living*. University of Washington Press.

UBCU. 2009. *Union Bay Credit Union*. Accessed May 2012. <http://www.ubcu.ca/>

Vancity. 2012. *Community Grants*. Accessed March 2012. <https://www.vancity.com/MyCommunity/NotForProfit/Grants/>

Vancouver Foundation. 2012. *Grants to Our Community*. Accessed May 2012. <http://www.vancouverfoundation.ca/grants/index.htm>.

VIHA. 2009. *Community Food Action Initiative*. Accessed March 2012. http://www.viha.ca/mho/food/food_security/Community+Food+Action+Initiative.htm

VIHA. 2010. *Denman Island Community Profile*. Vancouver Island Health Authority. Accessed September 2010. <http://www.viha.ca/NR/rdonlyres/369A1EE4-BBDE-47F0-9E99-2A275F8B8E04/0/CommunityProfileDenman.pdf>

VIHA. 2010. *Vancouver Island Health Authority Food Safe Program*. Accessed December 2011. <http://www.viha.ca/mho/food/foodsafe.htm>

Weather Office. 2010. *Historic meteorological data, Comox, BC*. Environment Canada. Accessed December 2011. http://www.weatheroffice.gc.ca/city/pages/bc-61_metric_e.html

Zebarth, B., Caprio, J. Broersma, K., Mills, P., and S. Smith. 1997. *Effect of climate change on agriculture in B.C. and the Yukon*. In: Responding to global climate change in BC and Yukon, Vol. 1. Canada Country Study: Environment Canada and BC Ministry of Environment.

APPENDIX A - ABBREVIATIONS

AAPC: Agricultural Advisory Planning Commission
AAFC: Agriculture and Agri-Food Canada
AGRI: BC Ministry of Agriculture
ALC: Agricultural Land Commission
ALR: Agricultural Land Reserve
ARDCorp: Agriculture Research and Development Corporation
BCCDC: BC Centre for Disease Control
BCEMB: BC Egg Marketing Board
BCMh: BC Ministry of Health
BCMMB: BC Milk Marketing Board
BC MPA: BC Milk Producers Association
BCMoE: BC Ministry of Environment
BCMScD: Ministry of Community, Sport, and Cultural Development
CFIA: Canadian Food Inspection Agency
CLI: Canadian Land Inventory
CSA: Community Supported Agriculture
CVRD: Comox Valley Regional District
DCA: Denman Conservancy Association
DCLTA: Denman Community Land Trust Association
DFO: Fisheries and Oceans Canada
DI: Denman Island
DICES: Denman Island Community Education Society
DIRA: Denman Island Residents' Association
DPA: Development Permit Area
FIRB: Farm Industry Review Board
FPPA: Farm Practices Protection (Right to Farm) Act
HDGPA: Hornby/Denman Growers and Producers Alliance
IAF: Investment Agriculture Foundation of BC
LGA: Local Government Act
LTSA: Land Title and Survey Authority of BC
LUI: Land Use Inventory
MIR: Meat Inspection Regulation
OCP: Official Community Plan
PHSA: Provincial Health Services Authority
REDI: Renewable Energy Denman Island
REF: Real Estate Foundation
RGS: Regional Growth Strategy
RSBC: Revised Statutes of BC
SSFPA: Small Scale Food Processor Association
TDI: Transition Denman Island
VIHA: Vancouver Island Health Authority

APPENDIX B – DENMAN ISLAND SOILS INFORMATION

SURFICIAL GEOLOGY

Vancouver Island and the Gulf Islands are a mountainous landscape constructed of landforms resulting primarily from the recent glaciation, which ended 10,000 – 20,000 years ago. Consequently, soil parent materials are mainly of glacial origin and consist of tills, glaciofluvial materials, marine deposits, interglacial sediments, organic, and recent fluvial deposits (Keser and St. Pierre, 1973).

Most of Vancouver Island and many of the Gulf Islands are underlain by dark volcanic rocks (basalts etc.) consisting of small grains of minerals rich in calcium, iron, and magnesium. These rocks yield hard boulders, pebbles, and sand grains but break down through weathering and abrasion into loamy and clayey debris. Associated with the volcanic rocks are subordinate amounts of limestone, and of more resistant sedimentary rocks. Granitic rocks contain more potassium and sodium than volcanic rocks, but much less calcium, magnesium, and iron. They yield an abundance of resistant boulders and pebbles, and break down into debris of sandy texture.

Shale and sandstones are intermediate in composition between the volcanic and granitic rocks. The shales consist dominantly of silt- and clay-sized particles and readily break down into debris of loamy to clayey textures. Pebble and sand-sized pieces of shale in soil parent materials commonly disintegrate into fine material in the soil. The sandstones and conglomerates are more resistant than the shale, but much less so than the volcanic and granitic rocks. Gravel-size pieces of sandstone in soil parent materials commonly disintegrate in the soil into sand and silt.

Denman Island soil parent materials are comprised of marine, fluvial, and wind deposits (primarily on the eastern portion of the island); weak to moderately cemented moraine deposits (on the western shores of the island); colluvial sandstone deposits (running through the middle of the island); and moderately decomposed organic or peat deposits (in pockets throughout the island by existing or filled in lakes and wetlands).

SOIL TYPES

Under a given set of climatic and biologic conditions, variation of the soil from place to place is controlled by the texture and stoniness of the soil parent materials, the slope of the terrain, and drainage within the ground. Drainage is controlled in turn by the slope of the ground surface, the texture of the soil and subsoil, the permeability of the subsoil materials, and (where the subsoil is coarse-textured) the level of the groundwater table.

Soil types and soil series are categorized based on distinguishing characteristics and criteria that dictate soil management techniques. Soil classification facilitates the organization and communication of information about soils, as well as the understanding of relationships between soils and environmental factors. Differences in soils are the result of the interaction of many factors: climate, organisms, parent material, topography and time. The soil types of Denman Island are primarily comprised of Podzols and Gleysols.

Podzols: Podzols are found in forested areas on sandy glacio-fluvial deposits with high levels of annual precipitation. Typically they occur under coniferous, mixed, and deciduous forest vegetation, but may also occur under shrub and grass vegetation (AAFC, 1998). Brown Podzolic soils are characterized by a top layer that is 1 to 2 inches thick of dark grayish brown to nearly black moderately well-decomposed organic litter. The B horizon is yellowish-brown to strong brown and the color fades with depth. The parent materials are medium to medium high in base-saturation but non-calcareous. These soils are distributed over the area south of Campbell River exclusive of the Alberni Basin. The vegetation is second growth fir, hemlock, maple and red cedar. At one time there were many large fir and hemlock trees which provided excellent lumber.

Gleysols: Gleysols are poorly drained soils, which develop under wetlands or poorly-drained forest vegetation. Their colour and mottling indicate prolonged periods of intermittent or continuous saturation with water from either a high groundwater table or temporary accumulation of water above a relatively impermeable layer, or both (AAFC, 1998). The top layer is 1 to 3 inches thick, over a dark brown or black A horizon 5 to 8 inches thick. The AB horizon is 4 to 8 inches thick, very pale brown to grayish brown and frequently mottled. The B horizon is yellowish-brown to pale yellow with many brownish mottles. The whole profile is medium to highly base-saturated. These soils are distributed throughout the entire area. They have a second growth vegetation largely of red alder, willow, maple and red cedar. The understory is composed largely of shrubs and ferns.

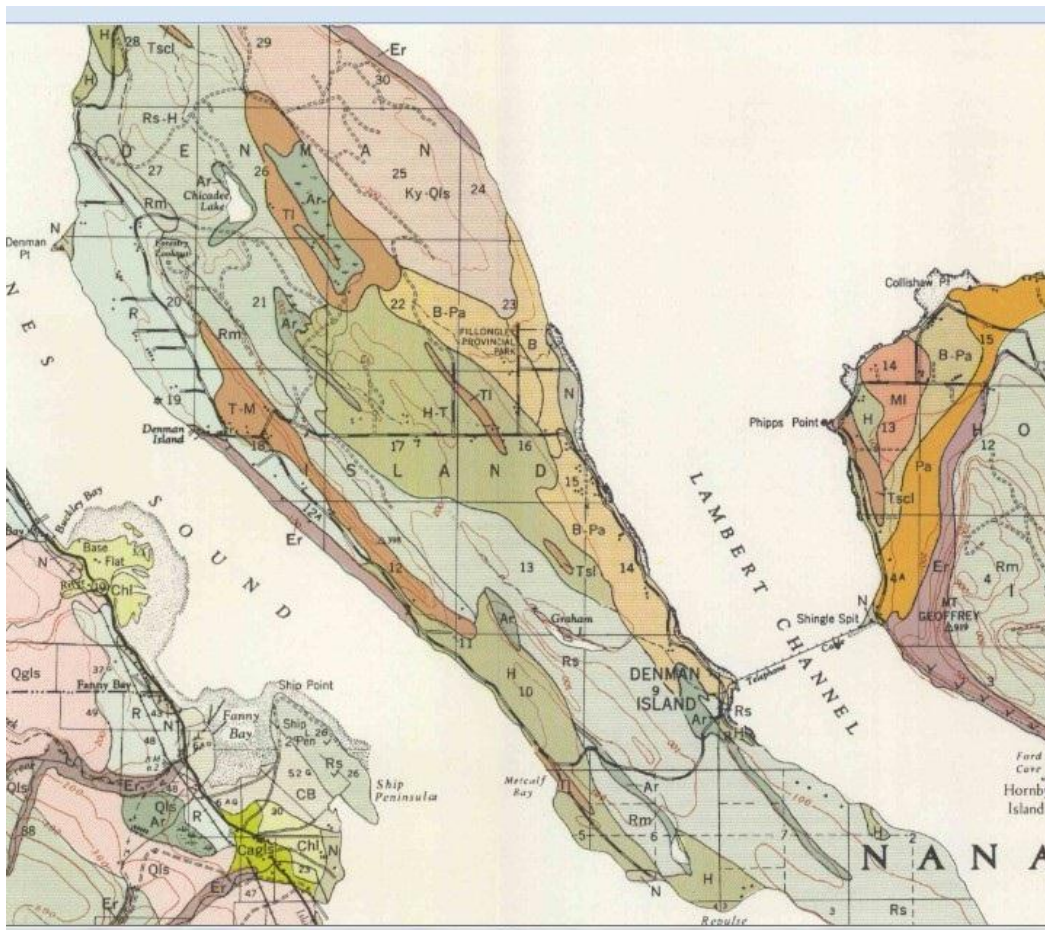


FIGURE 4. SOIL SERIES MAP OF DENMAN ISLAND (DAY ET AL., 1959)

Legend - Soil Series	
Code	Soil Series
Ar	Ar – Arrowsmith
B	B – Bowser
Er	Er - Eroded Land
H	H – Haslam
Ky	Ky – Kye
M	M – Merville
N	N – Neptune
Pa	Pa – Parksville
Q	Q – Qualicum
R	R – Royston
Rm	Rm – Rough Mountainous Land
Rs	Rs – Rough Stony Land
T	T – Tolmie

TABLE 9. GEOLOGIC AND SOIL CHARACTERISTICS OF DENMAN ISLAND SOIL SERIES

Location	Soil Type	Soil Series	Soil Texture	Topography	Drainage	Notes
Surrounding Chickadee Lake, in pockets east of Chickadee Lake and west of Swan Rd., wetland areas in the southern part of the island.	Peat	Arrowsmith (Ar)	Peat	Depressional	Poorly drained.	Deep undecomposed organic material (peat), stone-free
Eastern part of the island, along Swan Rd., East Rd., Corrigan Rd., Jemima Rd., and Beaver Rd. Found mixed with Parksville Soils.	Brown Podzol	Bowser (B)	Loamy sand	Gently sloping	Imperfectly drained.	Coarse marine sediments underlain by glacial till or marine clay, stone-free.
Bluffs along western island ridges (west of Lacon Rd. and south of Denman Rd.) and north eastern ridges.		Eroded land (Er)	N/A	Very steeply sloping	Variable drainage	Escarments, beach bluffs, etc.
Found mixed with Tolmie soils in central part of the island bisected by Denman Rd. and stretching north to end of N. Central Rd. Found also in southwestern portion of the island along Lacon Rd. between Woodham Rd. and Hilton Rd.	Brown Podzol	Haslam (H)	Shaly loam	Gently sloping to steeply sloping	Well drained	Glacial scoured consolidated shale and sandstone, few stones
Mixed with Qualicum soils in the northeastern portion of the island (east and north of Chickadee Lake).	Podzol	Kye (Ky)	Loamy sand	Level to gently sloping	Well drained	Stone free
Mixed with Tolmie soils in a narrow band running NW to SE just east of NW Rd. and Lacon Rd. from north of Piercy Rd. to Woodham Rd.	Podzol	Merville (M)	Loam	Gently sloping	Moderately well drained, saturated during winter months	Medium-fine marine sediments underlain by marine clay or glacial till
Found in small pockets along easter bluff (east of Fillongley Prov Park), at the southern end of Lacon Rd., and at Denman Point.	Rendzina	Neptune (N)	Gravelly loamy sand and sandy loam	Gently sloping	Well drained	Loose gravelly loam sand or sandy loam over gravel, sand, shells, and organic debris. Few stones.
Mixed with Bowser soils, see Bowser location description.	Dark Grey Gleysol mix	Parksville (Pa)	Sandy loam	Level	Poorly drained, receives seepage from higher elevations	Coarse marine sediments underlain by glacial till or marine clay, stone-free.

Location	Soil Type	Soil Series	Soil Texture	Topography	Drainage	Notes
Mixed with Key soils, see Kye location description.	Brown Podzol	Qualicum (Q)	Loamy sand	Level to gently sloping	Rapidly drained	Coarse permeable layer over gravelly loamy sand and gravel. Can be excessively stony.
North of the ferry terminal along east and west sides of Northwest Rd. Also in a narrow band along Lacon Rd. south of Denman Rd. intersection.	Brown Podzol	Royston (R)	Gravelly loam	Undulating to steeply sloping	Well drained	Gravelly loam with weak structure, very permeable over compact slowly permeable clay loam till.
Mixed with Rough Stony Land in the mid-western section of the island.		Rough Mountainous Land (Rm)	Variety of rocks	Mountains	Variable drainage	Very stony, mostly bare rocks.
Mixed with Rough Mountainous Land in the mid-western section of the island. Prominent in the southern tip of the island.		Rough Stony Land (Rs)	Variety of rock materials	Gently to very steeply sloping	Variable drainage	Very stony, thinly mantled bare rock.
Found surrounding Arrowsmith soils east of Chickadee Lake and mixed with Merville soils between Royston soils and rocky ridge just east of Lacon Rd. to the north and south of Denman Rd. intersection.	Dark Grey Gleysol	Tolmie (T)	Sandy clay loam	Level to depressional	Poor drainage	Medium-fine marine sediments underlain by marine clay or glacial till

AGRICULTURAL CAPABILITY OF DENMAN ISLAND SOILS

The Agriculture Capability rating system is a method designed to enable consistent and objective assessment of land based on inherent limitations for crop production (AAFC, 1998). It was developed in the 1960s as part of the Canada Land Inventory (CLI). Agriculture Capability ratings are based on soil, landscape, and climate properties, not crop yield data, and limitations may or may not be altered by management. Agriculture Capability ratings can be used to help determine appropriate crop choices, realistic target yields and assess and mitigate site-specific risks such as flooding, stoniness, steep slopes, or nutrient loss.

In this classification, mineral and organic soils are each grouped into seven classes on the basis of soil and climate characteristics according to their potential for agricultural use. Lands in Classes 1 to 4 inclusive are considered capable of sustained agricultural production of most crops. Class 5 lands are considered capable of producing forage crops or specially adapted crops. Class 6 lands are capable of providing only pasture for livestock. Class 7 lands generally are incapable of use for either crops or livestock (they are usually rocky outcrops or wetlands). However, it is important to note that many successful farms in BC are located on Class 7 soils, indicating that some crops may be suited to sites that many others are not. In particular, cranberries and vineyards can often do well in Class 6 and 7 soils. Soils labelled with the letter "O" before the class number indicate organic (peat) soils.

Unimproved ratings are based on the conditions that exist at the time of the survey, without irrigation or other management systems in place.

Improved ratings indicate the potential capability after existing limitations and/or hazards have been adequately alleviated. Improvements may include land grading, drainage, irrigation, diking, stone removal, salinity alleviation, subsoiling, and/or the addition of fertilizers or other soil amendments.

Other important assumptions that are made based on the classification system include:

- The soils will be managed and cropped under a largely mechanized system.
- Water is available for irrigation.
- The following are not considered in the classification: distance to market, available transportation facilities, labour, location, farm size, type of ownership, cultural patterns, skill or resources of individual operators, and hazard of crop damage by storms.
- The classification does not include capability ratings for trees, fruit orchards, vineyards/grapes, ornamental plants, recreation, or wildlife.

In BC, most soils were mapped for agricultural capability ratings in the 1980s, and these maps remain in use throughout the province. The associated Computer Assisted Planning, Assessment, and Map Production (CAPAMP) system (Kenk and Sondheim, 1987) has since been translated into Geographic Information System database files.

DENMAN ISLAND SOIL SERIES AND AGRICULTURAL CAPABILITY

The following descriptions are adapted from Day et al. (1959), Kenk and Sondeim (1987), and Keser and St. Pierre (1979).

Arrowsmith Soil Series

When drained, Arrowsmith peat can be cultivated for crops such as oats, hay, corn, potatoes and vegetable crops. However, this soil is difficult to bring into profitable production as clearing and improvement costs are high and drainage is expensive. The peat ranges in organic content from 94-97% and nitrogen from 1.1-1.9%. Soil reaction is extremely acidic and these soils require frequent applications of limestone. In general these soils are undesirable for agriculture.

Bowser Soil Series

Only a small percentage of this soil is cultivated and it is used mainly for hay and pasture. Seepage water maintains the subsoil in a moist condition throughout most of the year. The moisture-holding capacity is moderately low, total phosphorus is low and the exchange complex is quite unsaturated. Generally Bowser soils are moderately suited for agriculture. On Denman Island Bowser soils are found in conjunction with Tolmie soils, which elevates their agricultural capability.

Haslam Soil Series

Selected areas of this soil complex can be used for general farm crops, mainly hay and pasture. The majority of the soils, however, are not suitable for agriculture because of drought potential, low fertility, and the frequency of rock outcrops. Ultimately this soil may be utilized for agroforestry, for which it is best suited.

Kye Soil Series

Soils belonging to this series are found in conjunction with Qualicum soils on Denman Island and are considered non-agricultural. Forestry often represents their best use. Fertility is low and the soil reaction is strongly acidic. The base exchange capacity is low and the soil is very droughty.

Merville Soil Series

Merville soils occur on Denman Island in conjunction with Tolmie soils. Tree fruits, small fruits, potatoes, hay and coarse grains are often grown on Merville soils. The virgin soils are well supplied with organic matter and nitrogen, but once brought under cultivation these disappear rather rapidly. Manure supplemented by nitrogenous fertilizers is recommended. Potash, too, is recommended for forage crops and phosphates may be required for many crops. Soil reaction is strong to medium acid in the A and B horizons and the exchange complex of these horizons is strongly unsaturated. The soil moisture storage capacity is 1.4 inches in the top foot and for best results irrigation water must be provided. The non-capillary porosity and permeability of the A and B horizons are adequate to handle rainfall intensities or irrigation rates in the order of 1.5 inches per hour.

Neptune Soil Series

These soils occur in small patches, are very coarse-textured and are agriculturally of little importance on Denman Island.

Parksville Soil Series

Parksville soils occur on Denman Island mixed with Bowser soils. Parksville soils are well supplied with organic matter and nitrogen in the A horizon but the B horizons are notably nutrient deficient. The soil is saturated for much of the year and is slow to warm up in the spring. Artificial drainage is required.

Qualicum Soil Series

Soils belonging to this series are submarginal for agriculture except where they are used for specialty crops. The organic matter, nitrogen and phosphorus contents are low. The soil is infertile and cation exchange capacity is very low and the complex is strongly unsaturated. The available moisture-holding capacity of the top 12 inches is 1.1 inches while that of the top 24 inches is 3.2 inches. The soil is very porous and is not suitable for agricultural purposes unless irrigated. Cultivated areas can be used for the production of crops such as strawberries and early season vegetables. Heavy applications of composted and green manures supplemented by commercial fertilizers are often required for production.

Royston Soil Series

Royston soil clearings are small, scattered, and used mainly for hay, pasture, grain crops and vegetables. Tree fruits and berries also seem to do well. Clearing costs are high since the forests are dense and remaining tree stumps are numerous. Stones are sufficiently numerous to require removal. For forestry purposes Royston soils have a very high site index; which suggests that their ultimate use may be that of agroforestry in which selected fractions are used for agriculture and the remainder for forest use. The soil moisture-holding capacity is moderately high and about 3.9 inches can be stored in the profile. Even so, it may be desirable to irrigate crops on Royston soils during the dry summer season.

Tolmie Soil Series

Soils of the Tolmie series are used for a majority of farms on Denman Island. Potatoes, small fruits, hay and pasture are probably the most commonly cultivated crops on these soils. The A horizon of Tolmie soils are well supplied with organic matter and nitrogen and moderately supplied with total phosphorus. The cation exchange capacities are favourable and the exchange complexes are moderately well saturated. In general, these fertile soils respond well to applications of organic or non-organic fertilizers. Drainage is necessary in many areas. The moisture-holding capacity of the top 12 inches of soil is 1.9 inches, and 2.8 inches for the effective rooting zone. Irrigation is needed for maximum yields. Field tests indicate that Tolmie soils readily lose their favourable soil structure when cultivated. Effort should be made to maintain it through frequent incorporation of organic matter through tillage and other methods of incorporation.

The following table lists the improved agricultural capability ratings for all soil series found on Denman Island. In general, the soils are moderately constrained to agricultural activities but could host a greater diversity of crops than is currently being cultivated. Limitations are mainly due to excess water (winter) or seasonal drought (summer), stoniness, and topography – all of which can be managed to varying degrees depending on capital and labour inputs.

TABLE 10. AGRICULTURAL CAPABILITY RATINGS FOR DENMAN ISLAND

Location	Soil Series	Agricultural Capability: Improved Classification Numbers	Limitations
Surrounding Chickadee Lake, in pockets east of Chickadee Lake and west of Swan Rd., wetland areas in the southern part of the island.	Arrowsmith (Ar)	Very good, but peaty: O2, O3	Excess water
Eastern part of the island, along Swan Rd., East Rd., Corrigan Rd., Jemima Rd., and Beaver Rd. Found mixed with Parksville Soils.	Bowser (B)	Very Good: 2, 3	Stoniness
Bluffs along western island ridges (west of Lacon Rd. and south of Denman Rd.) and north eastern ridges.	Eroded land (Er)	Poor: 7	Topography Stoniness Fertility deficiencies
Found mixed with Tolmie soils in central part of the island bisected by Denman Rd. and stretching north to end of N. Central Rd. Found also in southwestern portion of the island along Lacon Rd. between Woodham Rd. and Hilton Rd.	Haslam (H)	Moderate: 4 Good when mixed with Tolmie soils: 2, 3	Soil moisture deficiency (seasonal) Stoniness
Mixed with Qualicum soils in the northeastern portion of the island (east and north of Chickadee Lake).	Kye (Ky)	Good: 3	Soil moisture deficiency (seasonal)
Mixed with Tolmie soils in a narrow band running NW to SE just east of NW Rd. and Lacon Rd. from north of Piercy Rd. to Woodham Rd.	Merville (M)	Very Good to Moderate: 2, 5	Topography Cumulative and minor adverse conditions
Found in small pockets along easter bluff (east of Fillongley Prov Park), at the southern end of Lacon Rd., and at Denman Point.	Neptune (N)	Moderate: 4	Fertility deficiencies
Mixed with Bowser soils, see Bowser location description.	Parksville (Pa)	Very Good:2, 3	Stoniness
Mixed with Key soils, see Kye location description.	Qualicum (Q)	Good: 3	Soil moisture deficiency (seasonal)
North of the ferry terminal along east and west sides of Northwest Rd. Also in a narrow band along Lacon Rd. south of Denman Rd. intersection.	Royston (R)	Good:2, 3	Stoniness Cumulative and minor adverse conditions
Mixed with Rough Stony Land in the mid-western section of the island.	Rough Mountainous Land (Rm)	Moderate to Poor: 4, 5, 7	Stoniness Soil moisture deficiency (seasonal) Bedrock outcroppings

Location	Soil Series	Agricultural Capability: Improved Classification Numbers	Limitations
Mixed with Rough Mountainous Land in the mid-western section of the island. Prominent in the southern tip of the island.	Rough Stony Land (Rs)	Moderate to Poor: 4, 5, 7	Stoniness Soil moisture deficiency (seasonal) Bedrock outcroppings
Found surrounding Arrowsmith soils east of Chickadee Lake and mixed with Merville soils between Royston soils and rocky ridge just east of Lacon Rd. to the north and south of Denman Rd. intersection.	Tolmie	Very Good: 2 Moderate: 5 in steep areas	Topography Cumulative and minor adverse conditions

APPENDIX C – EXISTING ORGANIZATIONS SUPPORTING FARMING ON DENMAN

Denman Island is fortunate to be home to a wide variety of organizations already working on educating and engaging the community in farming and farm activities. This list is not exhaustive, but attempts to capture a selection of the multitude of organizations on Denman Island active in supporting farming.

The **Hornby/Denman Growers and Producers Alliance (HDGPA)** was established in 2010 and is one of the most active groups engaged in farming on Denman Island. Their purpose is *"To advocate for all Hornby and Denman agricultural sectors and their offshoots, and to provide a forum for cooperation, communication and support among island growers and producers."* They have developed a number of initiatives to encourage and support food production on Denman including, but not limited to:

- Agricultural Events, such as the Gala Local Food Dinner on Hornby
- Workshops on various farming topics for both farmers and community members
- Purchase of a stainless steel juice press and grinder (looking to purchase a pasteurizer in 2012)
- Purchase of a chicken plucker
- A Denman Island Logo-Label Contest

This organization is quickly gaining momentum and providing an effective voice for farming on Denman Island.

Renewable Energy Denman Island (REDI) is "an informal gathering of residents intent on helping Denman prepare for the coming demands of Peak Oil and Climate Change." The group was assembled as a result of watching *"The Inconvenient Truth"*. Its primary purpose is public education about the twin threats of climate change and peak oil. REDI shows documentary films, offers workshops, sponsors events such as Seedy Saturday, and was responsible for publishing the Local Food Directory. REDI's purpose is *Food Security on Denman* and minimizing the carbon footprint as a community. In 2010, they linked the Denman community to the global Transition Movement and initiated various sub-committees addressing all of the main areas of concern related to climate change. Denman's Permaculture Guild is closely related to this group and focuses on engaging in agriculture and farming with the use of permaculture principles.

Transition Denman Island (TDI) developed from the connections to the global Transition Movement made by REDI in 2010. TDI's prime purpose is to make Denman a sustainable and self-sufficient community. Transition Towns/ Cities/ Islands, etc are part of a worldwide network of communities which are making a deliberate choice to work together to decrease their carbon footprints, lower their energy needs, and at the same time become locally resilient. The "transition" is from oil-dependent to locally sustainable. A number of action groups have been established including:

- Arts and Entertainment
- Agriculture-Food Sustainability
- Eco-Friendly Building
- Education and Reskilling
- Health and Well-Being
- Heart and Soul
- Renewable Energy
- Transportation
- Water Sustainability/Waste Disposal
- Other – Natural Environment

There have also been a variety of projects initiated as part of these actions groups such as the Grow Your Own Fuel project. TDI sponsored the Summer Sustainability Festival in 2012 and the Texpo event held in 2011.

Denman Island Old School Committee is a self-supporting committee under the Denman Island Residents Association. This committee is responsible for the administration, coordination and management of the Marcus Isbister Old School Centre and has been instrumental in the development of the Saturday Farmers Market. After initial unsuccessful attempts by local farmers to establish a farmers market near the New School, the Old School Committee supported, encouraged and enabled a market to be established at the Old School where a captive audience was already in existence for the recycling centre. The market at this site has grown and flourished and become THE place to be on Saturday mornings.

Denman Island SPUDS (Sowing Potatoes Underground for Denman Sustainability) is a local organic food sustainability initiative providing islanders affordable access to land for communal potato growing. Founded in 2007, it is located on land at the Hermitage on Denman Road. Initially inspired by the Linnaea Farm potato co-op on Cortes Island, SPUDS members care for the soil collectively- sharing learning experiences along with the harvest, and building community. SPUDS models stock-free growing techniques, incorporates consensus decision making, and encourages an intergenerational membership always open to new participants.

Denman Island Veganiculture Association (DIVA) is a grassroots educational initiative (both online, and in the field) advocating for stock-free organic gardening and farming practises. Goals include, but are not limited to, 1) fostering recognition of the global need to reduce dependency on animal husbandry in recognition of the role animal agribusiness plays in exacerbating global warming, as well as resource depletion (ie, heavy water use), and 2) to promote stock-free growing methods for building/maintaining soil fertility and increasing the production of plant foods on agricultural lands for people, as opposed to livestock.

Denman Island Community Vegan Potluck Series began in the mid 90's, hosting inclusive, once monthly 100% plant-based meals for food lovers of every persuasion. The series currently operates quarterly, continuing to feature after dinner guest speakers, films, slide shows or meetings on a wide variety of topics pertaining to social justice and environmental issues including food security, animal ethics, and other agricultural matters.

The **Denman Island Garden Society** is made up of 40 members that grow vegetables and engage in horticulture. They meet once per month.

The **Denman Island Pesticide-Free Committee** is a subcommittee of the Denman Island Residents Association (DIRA). Their mandate is to "...seek information, explore options and develop a plan of action for encouraging Denman Island to be pesticide free, and promote toxic free living to the greatest extent possible. The committee shall develop a plan to provide information about pesticides and alternatives to pesticide use in the community."

The **Denman Island Seed Sanctuary** began in 2010 following a workshop with Dan Jason from Salt Spring Seeds on successful seed banks and sanctuaries. Denman focused on the term Sanctuary, as opposed to a seed bank, because the word "bank" suggests some sort of vault in which the seeds are stored for the unfortunate event in which the seed supply would need to be replenished. Members involved in the Seed Sanctuary commit to growing out various species of seeds on an annual basis to keep the seeds viable, fresh and acclimatized to a changing climate. It is made up of a group of people who have studied seed-saving together and are taking their job seriously when they promise to have enough seed of each type they save for themselves, others and future years as well.

The **Hermitage** is a small meditation centre run by the Dharma Fellowship, a Buddhist non-profit and charitable society based on Denman Island. The 60 acre property of the Hermitage was managed as a farm for many years by two of the Greenpeace founders: Jim and Marie Bohlen. The property is located within the ALR and the Society is dedicated to maintaining and increasing the farming capabilities of the land. The field nearest the road already has several partnership projects underway including SPUDS, a potato collective, and the Seniors Garden, which has accessible community garden plots available to Denman Islanders. There is also an endangered species present on the property, the Checkerspot Butterfly, which has warranted a separate small plot in the community garden to be managed for butterfly needs. The Hermitage is committed to supporting community food and farming sustainability on the island and mindful caretaking of the forests and wetlands on the property.

All of these groups have played a strong role in promoting and supporting agriculture on Denman Island and have been important sources of information for those in the community looking to learn more.

APPENDIX D – LAND USE INVENTORY MAPS

The maps on the following pages indicate location on Denman Island of farms in each category and level of production and are based solely on the LUI and survey completed by Uitto (2011), and not on Statistics Canada Agriculture Census data. Figure 5 shows the boundaries of the ALR on Denman Island. The majority of the farms on Denman are located with the ALR, but some are also found outside of this boundary in the Rural Residential zone.

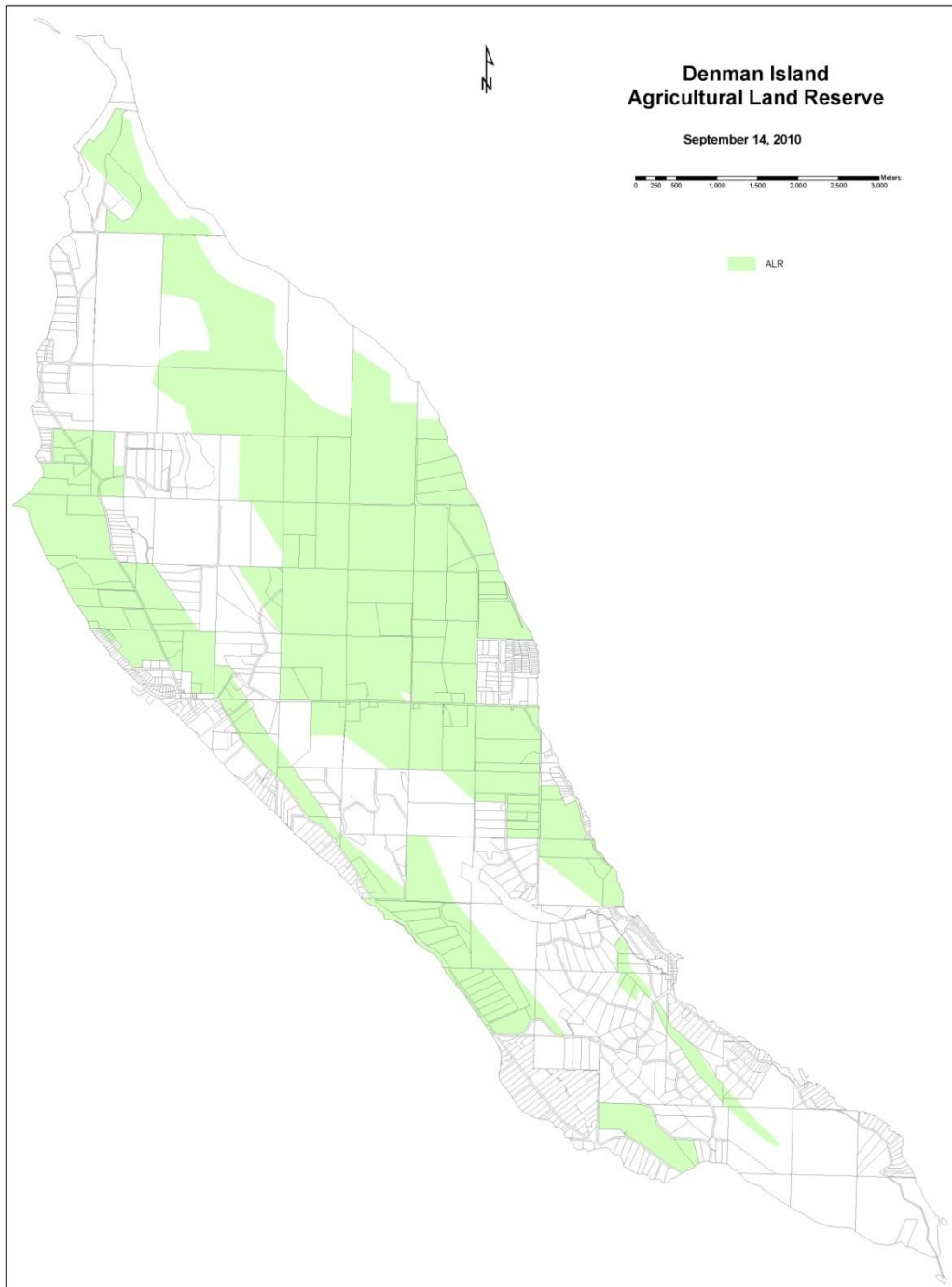


FIGURE 5. AGRICULTURAL LAND RESERVE (ALR) BOUNDARY

The largest level of production on Denman Island was in the fruit, nut, berry and grape category (Figure 6). Production of these crops is largely located on the coastal sections of the island with some production occurring outside of the ALR boundaries.

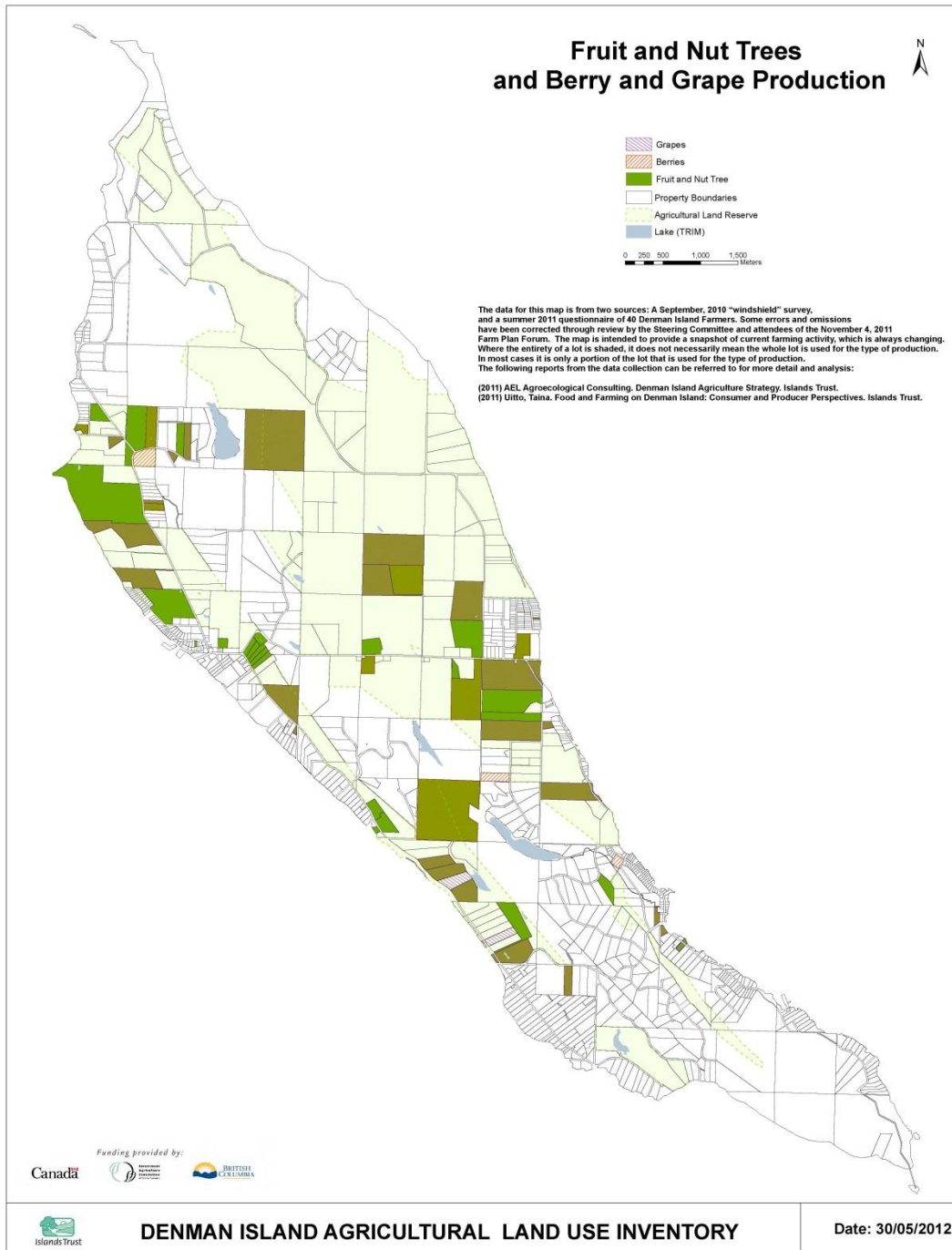


FIGURE 6. DISTRIBUTION OF FRUIT, BERRY AND NUT PRODUCTION ON DENMAN ISLAND

Vegetable, forage and grain production is significant on Denman Island. Production of these crops was largely located along the coastal sections of the island within the ALR (Figure 7).

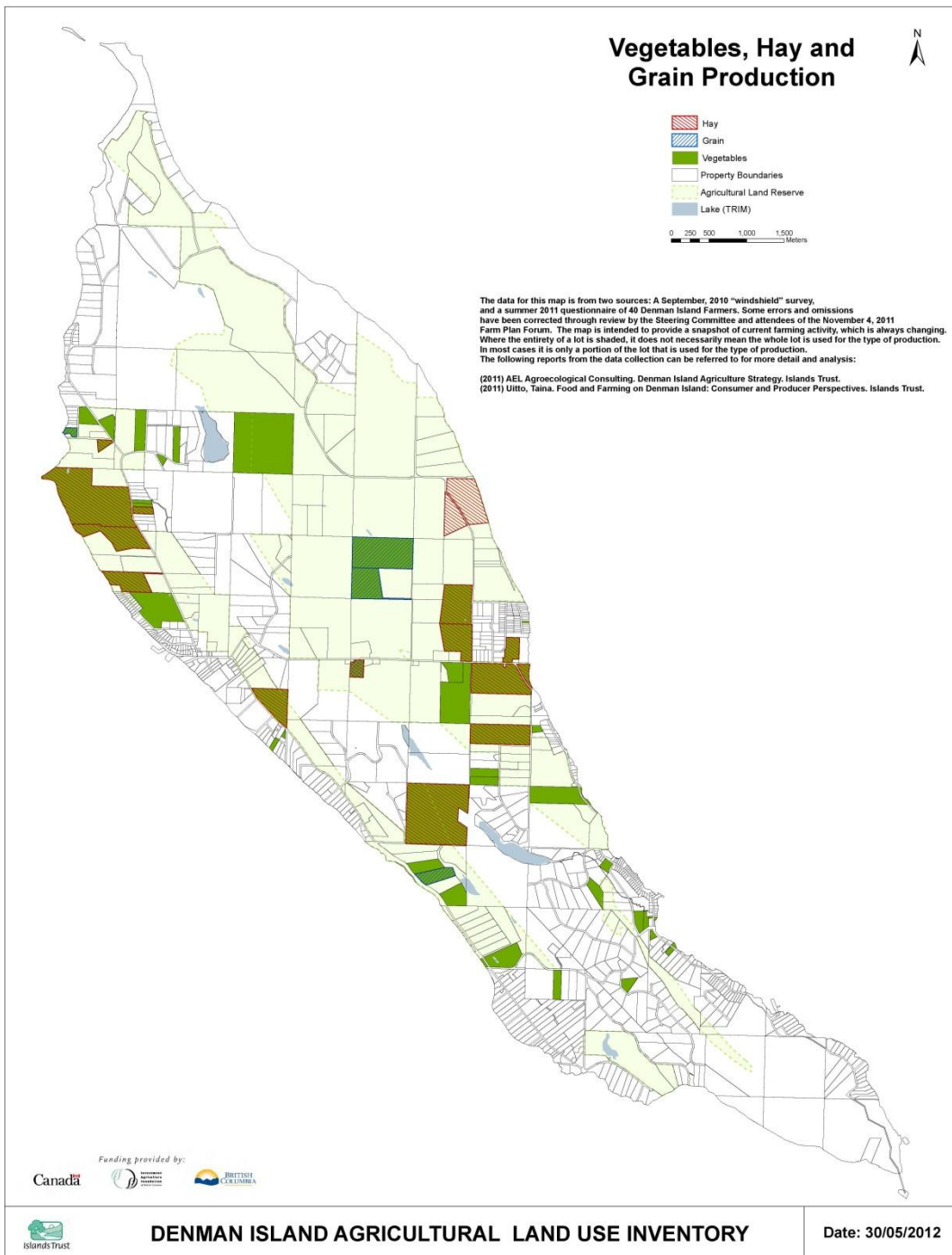


FIGURE 7. DISTRIBUTION OF FIELD CROP PRODUCTION ON DENMAN ISLAND

Livestock and poultry production is largely located within the ALR on the East and West sides of the island (Figure 8).

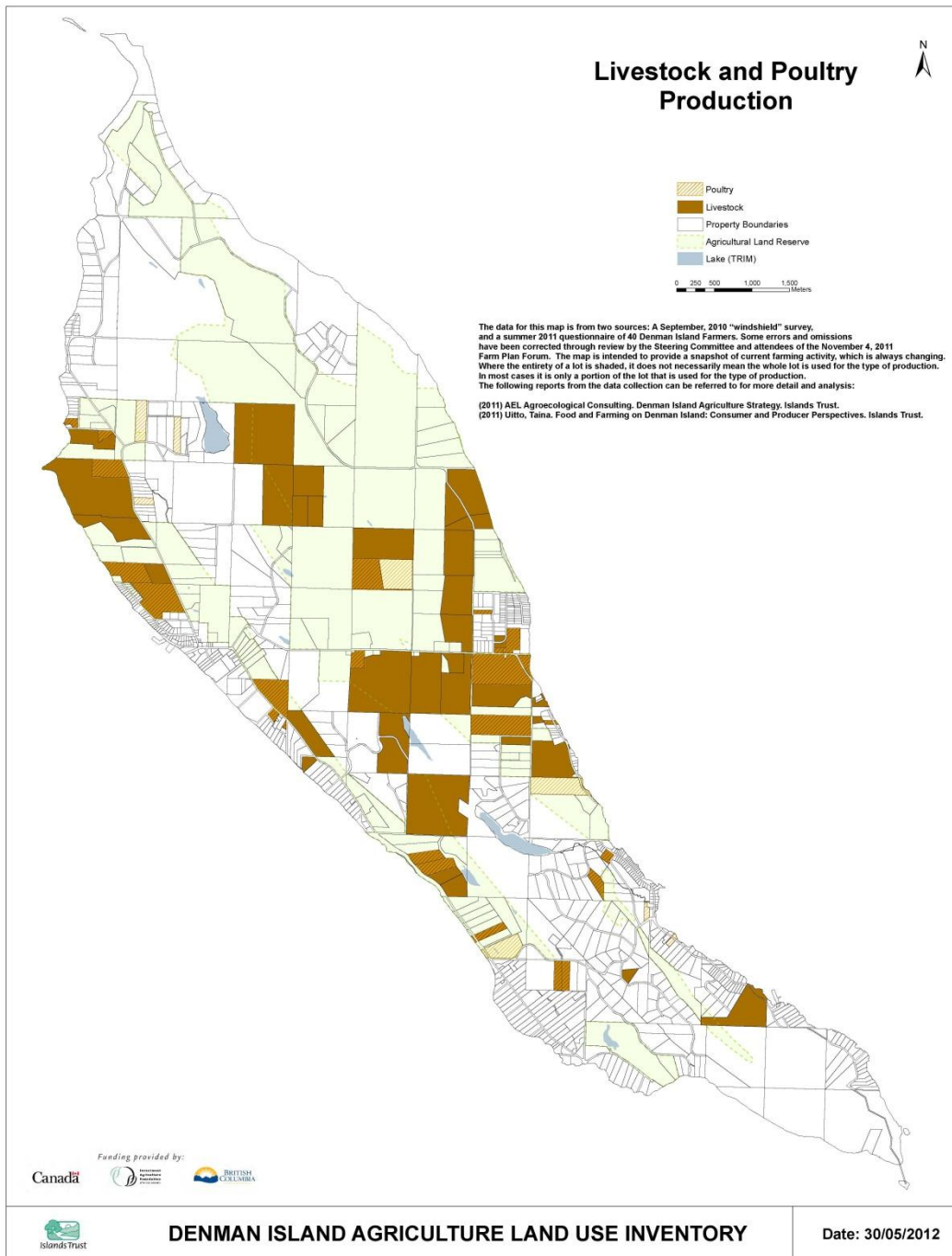


FIGURE 8. DISTRIBUTION OF LIVESTOCK AND POULTRY PRODUCTION ON DENMAN ISLAND

Some of the farms surveyed also indicated growing specialty agricultural products, such as specialty nursery crops, kiwi fruit, honeybees, tea, bamboo, fig and hop production (Figure 9).

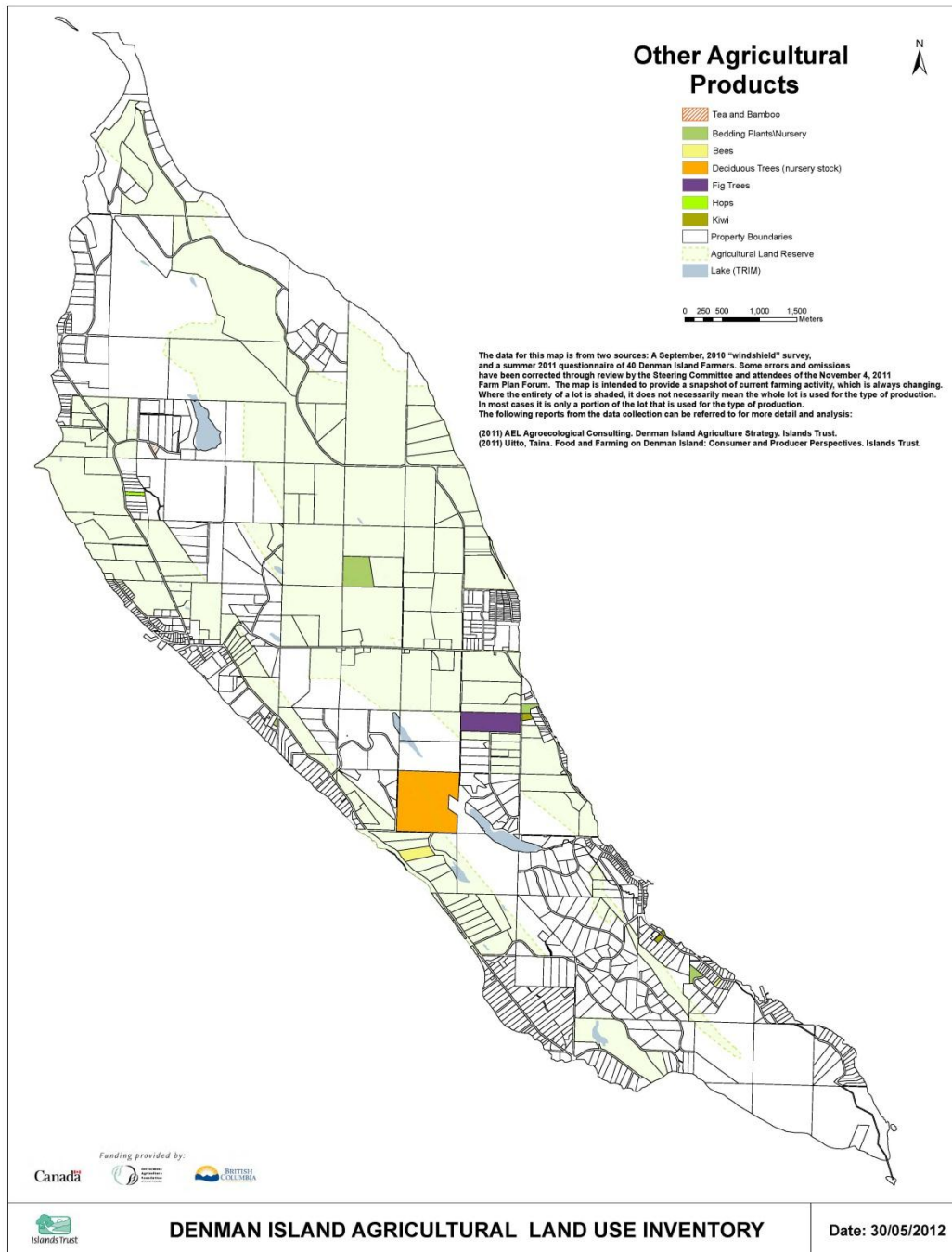


FIGURE 9. DISTRIBUTION OF OTHER AGRICULTURAL PRODUCTION ON DENMAN ISLAND

During the LUI and the survey (Uitto, 2011) a number of farms were identified that offered roadside or onsite farm gate sales (Figure 10). Sometimes these were in the form of small market store, but the majority of the sales were completed through a small stand offering produce or eggs on an honour system and no one present to accept payment. This system has been functioning very well on Denman Island and is highly appreciated by the community.

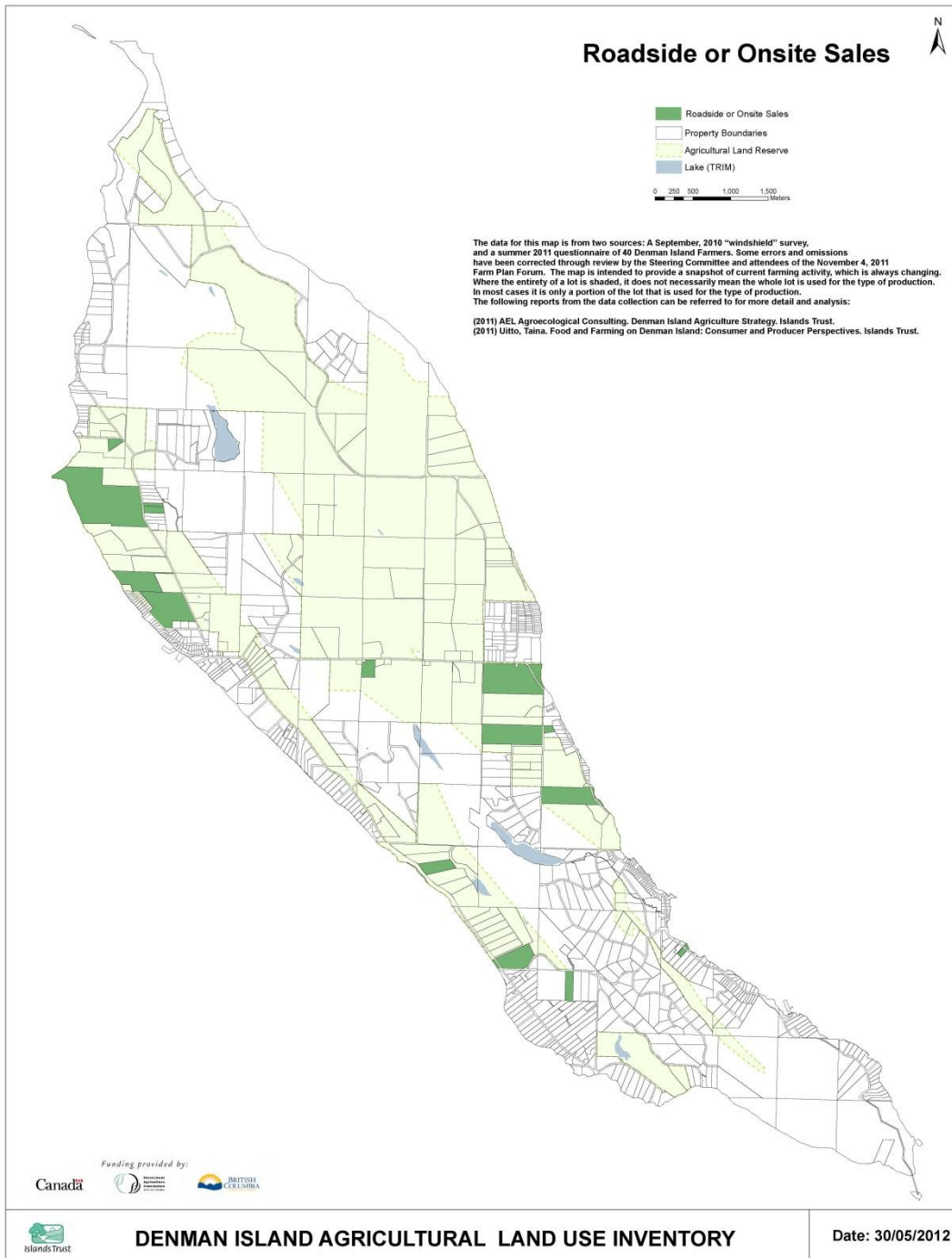


FIGURE 10. DISTRIBUTION OF ROADSIDE OR ONSITE SALES ON DENMAN ISLAND