



# KNOWLEDGE BRIEF: AGRICULTURE PLANNING

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*COMMON THEMES IN THE THREE AGRICULTURE PLANS OF THE COLUMBIA BASIN-BOUNDARY REGION*

*FEBRUARY 2015*



*The Columbia Basin Rural Development Institute, at Selkirk College, is a regional research centre with a mandate to support informed decision-making by Columbia Basin-Boundary communities through the provision of information, applied research and related outreach and extension support. This report is part of the RDI food systems research project which is funded by the Real Estate Foundation of BC and Columbia Basin Trust. To find out more, visit [www.cbrdi.ca](http://www.cbrdi.ca)*

## CONTENTS

Introduction .....	1
Increasing Demand, Decreasing Supply .....	1
Land Supply .....	2
Farmers .....	2
Financial Viability .....	2
Information Needs .....	3
Farm Advisory Services .....	3
New Farmer Training .....	3
Land Use and Capability Information .....	4
Market Research .....	4
Alternative Land Access Models .....	4
Climate Change Adaptation .....	4
Irrigation.....	5
Invasive Weeds .....	5
Policy Suggestions.....	5
Investment Needs.....	6
Conclusion.....	7

## INTRODUCTION

In the fall of 2014, the [Regional District of East Kootenay](#) (RDEK) completed an Agriculture Plan, joining the [Regional District of Kootenay Boundary](#) (RDKB) and the [Regional District of Central Kootenay](#) (RDCK), which both published Agriculture Plans in 2011. Together, these three plans cover the entire Kootenay region, and were all created for a similar reason: to help promote a viable agriculture industry. While there are some unique characteristics of each plan, due to different agricultural practices and variable cultural and physical settings, they have a great deal in common with recurring themes, related issues, and similar recommendations.

The Columbia Shuswap Regional District (CSRD) also published an Agriculture Plan in 2014, however, it does not include the two electoral areas that fall within the Columbia Basin–Boundary Region. Area A (rural Golden) and Area B (rural Revelstoke) were excluded because they were not deemed as agriculturally important. Based on the 2011 Census of Agriculture data from Statistics Canada, the agricultural system around Golden appears similar in both size and characteristics to RDEK electoral areas F and G, just to the south; therefore, it is reasonable to assume that they face similar challenges and opportunities. The only municipality in CSRD Electoral Area B is Revelstoke, which just published a [Food Security Strategy](#) (FSS). The Revelstoke FSS focuses more on access to healthy, local food for residents, but shares many of the characteristics of an agriculture plan. Valemount, at the north end of the Columbia Basin-Boundary Region is in the Regional District of Fraser Fort George where they are in the very early stages of developing an Agriculture Plan. Due to the lack of an Agriculture Plan and the limited agriculture activities around Valemount, this area was excluded from this analysis.

The development of the RDEK, RDCK and RDKB agriculture plans involved extensive public consultations and received support from the Regional Districts. All plans recognize that agriculture in the region faces serious challenges, and is more than just an industry to be supported. In addition to being an important economic activity, agriculture is seen as significantly contributing to food security, environmental health, and social sustainability of rural communities. This summary document highlights the commonly identified challenges, opportunities, and suggestions outlined in these three regional agricultural plans in an effort to assist and promote the implementation of the most common and highest priority actions.

## INCREASING DEMAND, DECREASING SUPPLY

There is extensive evidence that the demand for locally grown and organic food is increasing, with all three plans recognizing this demand as an opportunity to expand local agricultural production. A recent public opinion survey shows that [92% of BC residents](#) believe that BC should produce enough food to feed itself so the province does not have to rely on import products. In the Columbia Basin-Boundary Region, 75% of residents [prefer to buy food that was produced locally](#), and more than two-thirds would be [willing to pay extra for local food](#). The fact that approximately [95% of the food consumed](#) in the Basin-Boundary region is imported from other parts of the province, from other provinces, or internationally suggests there is enormous potential for local producers and processors to expand. The increased demand for local food is evidenced by the growing number of [farmers markets](#), community gardens, and backyard gardening within the region. Expanding demand is also evidenced by the

successes of the [Kettle Valley Food Co-op](#), the [Kootenay Co-op](#) in Nelson, the [Groundswell Network](#) in Invermere, and the [Kaslo Food Hub](#).

This growing demand, however, is not resulting in a growing supply. Based on the Census of Agriculture data, the amount of food being produced in the region has actually been [decreasing in recent years](#). In the Columbia Basin–Boundary region, the area being farmed [decreased by 18.6%](#) between 2001 and 2011. Although there are growing numbers of farmers markets, finding enough producers to sell at these markets is often challenging for organizers. The Kootenay Co-op maintains a long list of products for which there is great demand but insufficient supply that they would like to [purchase from local producers](#) (and pay a premium for). This disconnect between the increasing demand and decreasing supply provides rationale to help agricultural producers and the agricultural industry to increase the supply of locally grown food.

### LAND SUPPLY

The lack of local food supply does not appear to be due to a lack of land availability. [Census of Agriculture](#) data shows that the area being farmed in the three regional districts decreased from 183,457 hectares in 2001 to 148,246 hectares in 2011. This means there is over 45,000 hectares of farmland that have recently been farmed, but are no longer under production in the region. In the East Kootenay alone, over 57,000 hectares were identified as being available and with potential for agriculture, but not currently being used. Agricultural land is becoming underutilized because it is often taken out of production or is unavailable to farmers due to increasing land values which are often based on development or recreational uses as opposed to agriculture. The RDCK plan notes that approximately half of available farmland is not currently being actively farmed. The Kootenay Boundary plan notes that there are available unused and underused agriculture lands throughout the region.

### FARMERS

The lack of local food supply also does not appear to be due to a lack of interested farmers. The number of farms and farm operators is decreasing, and the average age of farmers is increasing (from 54.2 years old in 2006 to 56.6 years old in 2011), with less than 5% of farm operators under the age of 35. However, the burgeoning membership in groups such as [Young Agrarians](#) and [Farm Folk City Folk](#), as well as evidence of increased interest in farming at various food related workshops and conferences, suggest that there may not be a shortage of people wishing to be farmers, although there is likely a need for educational support for many new and aspiring farmers.

### FINANCIAL VIABILITY

If there is a growing demand for local food that is not being met, as well as land available for farming and people willing to grow the food, why has food production not increased? All three agriculture plans describe the financial challenges faced by farmers, and suggest that the core of the issue is that it is extremely challenging for farmers to make a living growing food.

Across the three regional districts, the 1,273 farms surveyed in the 2011 Census of Agriculture reported total gross farm receipts of \$71,099,592 and operating expenses of \$64,321,076, which equates to an average profit of \$5,324 per farm. The situation appears most dire in the East Kootenay, where total operating expenses exceeded gross sales, so the average farm is actually operating at an annual loss of \$1,355. These very low (and negative) profit margins mean that more than half of all farm operators in

the three regional districts have to find paid work off the farm. If farming became more financially viable, more young people would be able to get into farming, more farmers would be able to keep farming, fewer farmers would have to look for work off the farm, more land would be put towards food production, and more food would be produced. The three Agriculture Plans provide recommendations on how to improve the financial viability of farm operators and the agriculture industry which can be placed in three separate, but related categories: information needs, policy suggestions, and investment and infrastructure needs.

## **INFORMATION NEEDS**

There are farm advisory services, training needs, and information gaps that can be filled by dedicated staff people, educational institutions, government programs, research, or agricultural groups.

### **FARM ADVISORY SERVICES**

There has been a decrease in the availability of farm advisory services in all parts of the region. The Kootenay Boundary region lost local advisory capacity when its Range Management Officer position was relocated to Kelowna and subsequently suffered a reduction in available resources. The East Kootenay plan points to the loss of individualized extension services that used to be provided by the Ministry of Agriculture, helping farmers and ranchers with production, marketing, business and financial planning. The Central Kootenay plan describes the frustration of farmers with the loss of support from the Ministry of Agriculture, which formerly provided advice regarding crop selection, irrigation design, marketing, and pest and disease management.

All three plans had high levels of farmer engagement, and all placed the re-establishment of agriculture extension services and educational opportunities as the top priority in each region. There are three categories of extension services described: support services for existing farmers; business development and marketing training; and training and education of new farmers. There is an identified need for producers to be kept up to date on the latest research on new crops and varieties, emerging technologies and industry trends, changing consumer demands, and changing regulations.

Each plan suggests that the success of the plan hinges on the hiring of someone to implement the plans and address the needs for support services, business development, and marketing training. The top priority of the RDCK plan suggests a dedicated staff person be hired, while the first suggestion of the RDKB plan is to hire an 'Agriculture Development Officer' and the RDEK recommends hiring an 'Agricultural Liaison Officer' as the top priority. Each of these positions would essentially fill the void left by the loss of extension services and would help implement the recommendations outlined in each plan. The uniformity of this identified need across all three plans suggests that establishing these positions may have the biggest positive impact on the agriculture industry in the Columbia Basin-Boundary region.

### **NEW FARMER TRAINING**

The plans are less specific in their discussion of the need for training and education of new farmers, but all mention the need for programming at secondary and post-secondary institutions, including Selkirk College and College of the Rockies. Other suggestions include training programs such as the Green Certificate Farm Training Programs from Alberta and Saskatchewan; partnering with local or regional agricultural associations such as Young Agrarians or Farm Folk City Folk; providing access to farm business management resources such as [SmartFarm BC](#) or [Community Futures](#); promoting mentorship

and apprenticeship programs; establishing school gardens, community gardens and community greenhouses; and establishing incubator farms.

### **LAND USE AND CAPABILITY INFORMATION**

The first step in most agriculture planning processes undertaken in British Columbia is to complete an Agriculture Land Use Inventory (ALUI) which provides a baseline that describes the current status of agriculture in the region. This inventory is usually combined with Census of Agriculture data to provide a comprehensive description of the agriculture industry. While all three plans used data from the Census of Agriculture, only the RDEK plan had the benefit of an ALUI. An ALUI was completed in the Creston Valley in 2002, and a major recommendation of the RDCK plan was to update the Creston inventory and to keep it as current as possible. The RDKB plan recommends that an ALUI is completed and made available online, along with Agricultural Land Capability maps (soil maps) which do exist for most agricultural regions in BC, but are not widely available. Even where ALUIs have been completed, they only represent a snapshot in time. There is a clearly identified need to create, update, and maintain ALUIs across the Basin-Boundary Region. This information is seen as a prerequisite for effective land use planning, quality research, policy improvements, and bylaw development.

### **MARKET RESEARCH**

A commonly identified research need in all three plans is to identify market opportunities for specific crops. The RDEK plan has the most detail on this research gap and describes the need for a detailed baseline economic study for each sector to determine the cost of production, revenues, profit margins, transportation and logistics, market potential, and best management practices. The market research should determine the size and scope of local or regional markets, how effectively local markets are currently served by local agricultural products, current and future production capacity, and potential economic returns and risks.

### **ALTERNATIVE LAND ACCESS MODELS**

All three agricultural plans identified that farmland is often prohibitively expensive for new farmers, and development pressures in some areas mean that agricultural lands are sold based on the much higher speculation of residential or recreational values. The loss of farmland due to development is a major issue identified in the RDEK Agriculture Plan where pressures seem to be the greatest, and is the [top agricultural concern](#) for the people of BC.

To address the loss of farmland and prohibitive expense, the RDEK and RDKB plans recommend research into the feasibility of alternative land ownership models such as an Agriculture Land Trust or land cooperative model. There are examples of both outside the region that make land more accessible to farmers that cannot afford to buy farmland at market prices. Those two plans also suggest the creation and maintenance of a database of lands for lease to help connect landowners with potential farmers. In order to be effective, this database needs to be maintained, and competing databases should be avoided so that every interested party goes to the same place. Young Agrarians currently has an [online map](#) that fills this role.

### **CLIMATE CHANGE ADAPTATION**

The plans express variable levels of concern regarding threats and opportunities linked to climate change. The RDKB plan places the greatest emphasis on climate change by highlighting the need for

research and education on the impacts of climate change on agriculture to help farmers adapt to changing conditions. It suggests that information availability on the impacts of climate change would help local producers adapt and avoid future problems. The East Kootenay Plan discusses in very general terms how agricultural practices may need to adjust due to various impacts of a changing climate, while the Central Kootenay plan only briefly mentions incorporating climate change adaptation in the context of community planning. The lack of emphasis on climate change may be due to the many challenges farmers face in the short term that seem more pressing to their survival and sustainability. Climate change may be seen as a problem that is too distant, large, unclear, or difficult to deal with in the context of agriculture plans.

## IRRIGATION

The one aspect of climate change that is recognized to be an issue in all plans is the need for increased irrigation due to projected reduced summer precipitation and increased temperatures. Education and awareness of efficient irrigation using, for example, the Environmental Farm Plan Program was recommended in the Kootenay Boundary and Central Kootenay plans. The East Kootenay plan suggests more efficient irrigation, which would require investments as well as education, and recommends several policy options: reduced costs for irrigation; increased access to municipal and crown land water; reduced electricity costs for irrigation; improved controls and management of new water licenses; and guarantees for existing licenses.

## INVASIVE WEEDS

Invasive weeds can significantly impact farms and farmland, and this impact is likely to increase in a warmer and drier climate. Each plan recommends supporting their regional invasive plant programs, including the [Boundary Invasive Species Society](#) (formerly known as the Boundary Weed Management Committee), the [Central Kootenay Invasive Plant Committee](#), and the [East Kootenay Invasive Plant Council](#) to deliver on their Invasive Plant Management Plans and support efforts to monitor and control the spread of invasive weeds. Increased awareness of the threats and treatments of invasive weeds would help farmers deal with emerging issues and reduce impacts. Both the Boundary and Central Kootenay plans suggest targeting absentee land owners and helping all landowners with noxious weed problems.

## POLICY SUGGESTIONS

Although policy issues and challenges from both provincial and federal levels are mentioned and there are some recommendations relating to lobbying higher levels of government, most policy recommendations tend to focus on areas where there is regional jurisdiction. Suggestions relating to zoning, land use planning, taxation, bylaws, and full incorporation of agricultural issues and concerns into Official Community Plans are included. While each agricultural plan makes some unique recommendations, there are a few common themes; all recognizing there are limited policy options for Regional Districts to profoundly influence the agriculture industry. Nevertheless, there are some policy suggestions for Regional Districts to assist in some way. Common to all three plans are suggestions to:

- reduce tax assessment rates or building code permit fees for farm structures that meet the National Farm Building Code of Canada;
- restrict the number and size of non-agriculture related secondary dwellings;

- utilize zoning and bylaw tools to reduce the potential for urban/rural conflict and the loss of agricultural land to urban expansion;
- review bylaws related to restrictions on livestock in backyards in non-agricultural zones;
- review agricultural zoning bylaws related to processing livestock and other agricultural crops, and on-farm businesses;
- consider policy or bylaw restrictions for maximum building footprint size and setbacks for residential buildings in agriculture zones to reduce the loss of agriculture lands;
- reduce subdivision, set minimum parcel sizes, and encourage amalgamation of contiguous parcels in agriculture zones (smaller parcels are less likely to be farmed);

In addition, RDEK and RDKB plans suggest that secondary residences on agriculture lands be allowed for farm families to help with succession planning, allowing the children of farmers wishing to take over the family business to build a home on the land, and providing housing for farm labour. RDCK and RDKB plans suggest that a staff person at each Regional District should serve to help farmers with government programs, funding opportunities, regulatory issues, and permitting challenges.

## INVESTMENT NEEDS

While many farmers may require investments for expenses such as fencing, buildings, equipment, or labour, all plans focus on the lack of supportive infrastructure in the local food system. The loss of storage, distribution and processing facilities, the inaccessibility of tools and equipment, and the lack of marketing support are all discussed. Many of the information needs described above would also require investments, such as: re-establishing farm advisory services; education; information provision; research; and supporting regional invasive plant programs. These financial investments could be sourced from government funding, private interests, or non-governmental organizations. The challenge is to determine where investments would have the greatest impact, and where returns may be greatest.

The most commonly referenced infrastructure need is increased meat processing capacity. All three plans point to limited slaughter facilities as a major obstacle for farmers to process meat in the regions and sell their products locally. The changes to the meat inspection regulations in 2004 are identified as the main cause of the loss of meat processing facilities. These changes have resulted in many new regulatory issues and require significant capital investments that make building and running an abattoir a very difficult business to start and maintain, despite the demand for their services. The limited number of facilities to kill or butcher animals for commercial sale in the region necessitates that many producers truck animals to abattoirs for processing, which stresses the animals resulting in reduced meat quality and decreased profit for the farmer.

All three plans further point to the need to develop a local or regional marketing strategy to capitalize on the growing demand for local food. Regional marketing strategies require coordination and financial resources. There are some successful examples to build on such as local food guides, branding such as the Kootenay Mountain Grown label, the Kootenay Co-op's 'True Local' campaign, or the Boundary Country brand.

Other identified infrastructure gaps include the lack of canning or freezing facilities, few egg grading stations, challenges accessing commercial kitchens or grain milling facilities, and limited packaging options. Innovative solutions are sometimes suggested to deal with these challenges. Examples from



within and outside the region are cited as options that should be explored, including: commercial incubator kitchens; industry clusters; waste diversion schemes; small tool libraries; foodland trusts; Community Supported Agriculture; bulk buying clubs; direct sales; producer co-operatives; values-based food supply chains; and food hubs.

## CONCLUSION

The agricultural plans completed for the [Regional District of East Kootenay](#), [Regional District of Kootenay Boundary](#), and [Regional District of Central Kootenay](#) all highlight the need for follow up action so these documents do not end up as another report sitting on a shelf. The high degree of similarity found within the plans indicates that the agriculture industry in the Columbia Basin-Boundary Region faces common issues, challenges, and opportunities. A region-wide approach of cooperation and sharing of knowledge and resources may be an effective way to work towards the common goal of a viable agriculture industry, providing locally produced food and food products to residents across the region.

