

THE POTENTIAL OF MARGINAL AGRICULTURAL LANDS

Discussion Paper

Prepared by

SOILS BRANCH

B. C. Ministry of Agriculture

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INTRODUCTION

As the process of "fine tuning" the Agricultural Land Reserve (A.L.R.) continues there are some important agricultural land resource considerations which should be analysed in detail. A.L.R.'s should reflect the characteristics of a region's land resource and land use mosaic. The "fine tuning" process must involve a detailed analysis of the agricultural possibilities of the region and local agricultural priorities and planning policies developed accordingly.

It is often claimed that class 4 and 5 soils (C.L.I. soil capability for agriculture) are marginal for agricultural production and should therefore not be included in the A.L.R.

Additionally, properties are sometimes considered to be unsuitable for agricultural production due to small parcel size and/or serious urban encroachment. It must be recognized that marginal agricultural soils (i.e., class 4 and 5) may have high capability for certain specialty agricultural uses. This paradox necessitates careful regional evaluation of marginal lands rather than a general approach to the question of whether such lands should be in the A.L.R. This discussion paper could be entitled "The Paradox of Specialty Uses on class 4 and 5 Lands".

In many areas a special case can be made for the retention and/or inclusion of marginal lands within the A.L.R. These include the following:

- (1) where the class 4 and 5 soils, although generally unsuited for many crops because of unique soils and climate characteristics, are well suited for specialty crops.
- (2) where class 4 & 5 soils may produce as much forage as higher class soils.
- (3) where lands subject to urban encroachment are suitable for a range of vegetable and/or fruit crops because such crops can often be

marketed on a local or road side basis;

- (4) where marginal land can be used for intensive non-soil bound agriculture.

Marginal land may therefore have a low C.L.I. capability rating but a high priority for agriculture use.

SPECIALTY CROPS

British Columbia has a unique position in Canada's agricultural possibilities. Due to the complexity of soils and climate, production of numerous specialty crops is possible. In the Okanagan Valley soils which are often unsuited for most agricultural crops are especially suited to grape and tree fruit production. In the coastal region (Vancouver Island and the Lower Mainland) specialty crops of raspberries, strawberries, loganberries, blueberries, cranberries, apples, pears and filberts are grown on class 4 and 5 soils. These crops are not considered in the C.L.I. classification system. Examples of marginal lands presently used for the production of specialty crops are:

- (1) rapidly drained soils south of Abbotsford used for raspberry and strawberry production;
- (2) well drained upland till deposits used for loganberry, holly and apple production on Saanich Peninsula;
- (3) acid, organic soils of Richmond used for cranberry and blueberry production;
- (4) rapidly drained, coarse textured soils of the Okanagan Valley used for grape and tree fruit production.

The soil limitation which causes low productivity for most crops and results in a low agriculture capability may be the characteristic which makes certain soils highly suited to a specialty crop. For example the coarse, droughty soils suited for grape production would have low productivity for most traditional crops. The poorly drained, acid organic soils in Richmond are highly

suitied to cranberry and blueberry production; however, other crop production is often impractical. Many areas now growing these specialty crops were only developed within the last 20 years and were previously considered unsuited for agriculture. Where specialty crops are grown on marginal lands the agricultural potential of these lands is well recognized. However, the possibility for additional specialty crops on other marginal lands has not been fully explored. British Columbia has some of the most favourable climate for agriculture in Canada. In such areas the possibility of producing specialty crops on class 4 and 5 soils is considerable. Such potential must be evaluated in the A.L.R. "fine tuning" process.

F O R A G E C R O P S

Where Beef and/or Dairy production is a major agricultural activity the need for forage production is recognized. The beef industry of British Columbia's interior has been identified as an area of economic expansion. For the beef industry forage crops produce winter feed needs which cannot be supplied by grazing lands. Forage producing lands are often in great demand because of the key role they play in the ranching community. Dairy farms throughout the Province also rely on forage producing lands. Class 4 and 5 lands may have as much or more potential for forage crop production than lands of a higher capability class. These marginal lands should be recognized for their forage production capability when located in areas of beef and/or dairy production.

"MARKET GARDENS" IN AN URBANIZING ENVIRONMENT

Urban encroachment reduces the viability for many types of agricultural production. These areas come under increased pressure for urban infilling. However, where the lands have the potential for high productivity for vegetable and/or fruit production, the possibility of intensive farming and

marketing the produce on a local or roadside basis provides economic possibilities for these properties. The surrounding urban population provides a ready market for the fresh produce.

These properties may be small in size and would not normally be considered an economic unit. However, the part time farmer is a reality in B. C. and a substantial portion of an individual's income can be gained from roadside marketing of produce. When a property is intensively cropped and the produce marketed locally a substantial farm income can be obtained from a relatively small size property. Examples of areas of agricultural production in an urbanizing environment are the "Market Garden" farms of Richmond, the Big Bend area of Burnaby, and the Blenkinsop Valley and Oldfield Road area of Saanich Peninsula.

These areas have potential for intensive agricultural production. The traditional concepts of large scale mechanization cannot be applied. Marketing may need be largely based on local "you pick", or roadside sales and often only a portion of an owner's income is the objective. These areas provide an open space for the urban dweller as well as supplying fresh produce needs. Provincial and Local Governments may have to utilize additional measures to preserve these lands. Tools such as tax policies, land acquisition (leasing for agriculture) and protection from vandalism may need to be considered.

Some basic requirements for pockets of agricultural land in an urbanizing environment are:

- (1) capability for intensive vegetable and/or fruit production;
- (2) good road access for the urban consumer;
- (3) proper policing against vandalism;
- (4) well defined agricultural area, geographically or by man made barriers - examples, small valley bottoms, organic lowlands

and river terraces or areas bounded by major roads, parks or other such buffers;

- (5) the areas should be relatively large although property size need not be large. For example 50 acres of 5-10 acre lots may provide a reasonable area for protection. Where the area is a well defined geographic unit it could be smaller in size.
- (6) local by-laws, regulations and taxes must not unduly restrict agricultural activities
- (7) Adequate water supply and greenhouses are well suited to agricultural areas within an urbanizing environment as well as marginal lands in an agricultural setting. Intensive livestock operations have more limitations due to odour and manure disposal problems.

Small property sizes of 5-20 acres are often well suited to many forms of intensive, housed agriculture. Land area or capability of a given property is not a major requirement. However, the protection of a well defined agricultural community is important.

NON-SOIL BOUND AGRICULTURE

There are many types of agriculture which do not require soil for production.

These include:

- (1) Greenhouses
- (2) Mushrooms
- (3) Forced Rhubarb
- (4) Container Nurseries
- (5) Poultry
- (6) Hogs
- (7) Beef Feedlots
- (8) Dairy farms are approaching the point where the feed is produced off the farm and the animals are always contained.

When these operations are built on high capability soil the loss of good agriculture land to buildings and farmyard can be compared to that of industrial uses; however, the need for these operations to be located in an agricultural community must still be recognized. Many of these commodities have the same needs in terms of flexibility of operation as other forms of agriculture (e.g., early morning working noise, farm odours, protection from vandalism). Intensive livestock operations also need lands to dispose of their manure, therefore crop lands should not be too great a distance away.

Class 5 & 6 lands suited to building sites for intensive agricultural operations should be retained or incorporated into an A.L.R. where they are located in conjunction with lands suited to crop production. These forms of agriculture should be encouraged to build on the marginal lands and their investment be afforded the protection of an A.L.R. (using the Green Zone concept).

Agricultural uses such as forced rhubarb, mushrooms, nurseries, and greenhouses can be located in any area of A.L.R. and are well suited to both the small pockets within an urbanizing environment as well as a large A.L.R. in an overall agricultural setting. Intensive livestock operations would have more restrictions due to the odour and manure disposal problems.

Small property sizes of 5-20 acres are often well suited to many forms of intensive, housed, agriculture. Land area or capability of a given property is not a major requirement. However the protection of a well defined agricultural community is important.

S U M M A R Y

Land which has limited capability for agricultural production (i.e., C.L.I. class 4 and 5) and land which is in small legal parcels or under pressure of urban encroachment is often considered marginal agricultural land. The argument is sometimes made that such land need not be retained in the A.L.R. In the A.L.R. "fine tuning" process careful consideration must be given to the unique agricultural potential that such land may possess.

It must be recognized that no "hard and fast" rule can be established relative to the inclusion of all "marginal" land in the A.L.R. Such decisions must be made in the local context, but do require a regional, and in some cases, a national perspective. The validity of at least four (4) possible uses must be assessed when evaluating marginal agricultural lands. These are; speciality crops; forage crops; "urban" market gardens; and non-soil bound agriculture.

Although land use decisions regarding marginal agricultural land will often need to be made on a site specific basis, the above mentioned uses can serve as a general guide.

A. Schori, P.Ag.
Head, Soils Branch

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