



# Managing Wild Blueberry Fields

## A. Site selection

In deciding whether or not to develop a site for wild blueberry production, it is advisable to analyze the factors which can influence its productivity and profitability. Whether the choice between several sites is available or not, this exercise is always worthwhile.

The main points to consider in site selection are:

### *The degree of wild blueberry plant cover*

The quantity and distribution of wild blueberry plants on a site are by far the most important considerations in site selection. An ideal site will have plants distributed throughout the site and a good density within each spot. A minimum of 50% plant cover is acceptable, but 75% coverage will achieve profitability in a shorter period of time.

Plant cover refers to the proportion of the field where blueberry plants are present, compared to plant density, which refers to the number of stems per surface area (e.g. 850 stems/m<sup>2</sup>). It is easier to increase plant density than plant cover with good field management practices.

### *The dominant plants*

Several situations are possible.

- ✓ An abandoned hayfield with wild blueberry plants distributed throughout the field is the ideal situation. The clearing costs are minimal and the land does not need to be leveled. In addition, this type of soil tends to be more fertile.
- ✓ In a mature forest stand, the clearing and cleaning work is enormous, but the sale of wood may help to defray some of the costs. Another significant cost is associated with stump removal and land leveling for mechanical operations of production
- ✓ If the site is mainly composed of hardwood trees, the costs associated with weed control is generally higher because of the anticipated regrowth. Also, stump removal is generally more expensive and damage to blueberry plants is higher, resulting in reduced plant density. However, this type of land tends to have more fertile soils.

- ✓ In the situation where the site consists mainly of small brush (after a clear cut or forest fire), this can provide a great advantage because of the possibility of using mechanical implements to clear the site. The majority of fields have been developed from these conditions.

## ***The physical conditions of the site***

The physical characteristics to consider are:

- ✓ The presence or absence of rocks (boulders, stones, rocks and ledge). The presence of large quantities of medium-sized rocks can make the field very costly to level.
- ✓ The roughness of the field. Leveling rough, uneven fields may be costly and destructive.
- ✓ The topography. If the slopes are too steep mechanization of field operations will be difficult. Also, steep slopes can make the site subject to erosion and pesticide/ fertilizer leaching or runoff.

## ***Air drainage***

Natural air drainage is desirable in order to minimize the danger of spring frosts due to stagnant air pockets or cold air accumulations in low-lying areas. If there is no way to modify the terrain for evacuation of this air, then the site should be avoided.

## ***Soil drainage***

Soil drainage is also very important. Soils which hold surface water for relatively long periods of time should be avoided, unless the site can be improved by surface or sub-surface drainage.

## ***Soil quality***

Wild blueberries do not need deep soils to grow. However, if the soil, including the organic matter layer, is too thin, the productivity of the crop will be affected. The organic matter layer should be at least 2.5 cm deep.

Wild blueberry crops can be produced from a wide range of soil fertility levels. Sites are generally more productive if the natural soil fertility is high and the pH is between 4.2 and 5.2. Soils of agricultural origin, in which the organic matter layer has been mixed with the soil, tend to be more productive than soils of forest origin.

## ***Types of weeds***

It is a good idea to evaluate the weeds present in a potential field, in order to ensure that these can be controlled adequately. It is preferable to avoid sites or sections of fields which are infested with weeds that are difficult to control (e.g., rhodora and barren berry).

## ***Field access***

It is essential to have guaranteed access to a site at all times, in order to:

- execute field operations at the right time;
- get pickers to the field relatively easily;
- guard the site from thieves and vandals;
- regularly scout the field for insects and diseases; and
- allow quick access in case of forest fires

## ***Proximity of residential communities***

An agricultural operation within the residential areas of rural NB is very challenging. It is therefore important to consider environmental impacts in order to ensure that agricultural practices will not negatively impact the neighbouring community (e.g., water contamination, drift from pesticides, fire and smoke).

## ***Proximity of water courses and wells***

During site development, it is important to consider the proximity of water courses and to respect the buffer zone legislated between agricultural fields and water courses.

## ***B. Site management***

Developing a wild blueberry field consists of felling and clearing all the trees and shrubs in order to begin production. An alternative strategy is to mulch all the materials and leave it on the ground. While decomposing, the rotten material will form a duff layer, which will help conserve humidity in the soil.

During tree felling, the stumps should be cut flush with the soil, so that they do not interfere with the other activities necessary for field development. Recently, the excavator and forestry mulchers have been used to open new fields. Caution must be taken with these implements not to disturb the soil, especially with the mulchers, which may have a tendency to dig into the soil. It is a good idea to retain rows of trees and/or shrubs at regular intervals in the fields. These rows will act as windbreaks and will favour snow accumulation and pollination. For more details on windbreaks, please refer to [factsheet A.4.0](#).

Lastly, a fire-break should be established around field's perimeter in order to prevent a fire from escaping the blueberry field during the burning. Fire-breaks must meet the requirements of the Department of Natural Resources.