

## 8. BLUEBERRY PRODUCTION

Some blueberry farming practices deserve special mention. Blueberry producers commonly use burning as a means of encouraging new upright growth in blueberry fields. Proper burning practices must be used to minimize environmental problems, reduce the potential for soil erosion and prevent plant injury.

Blueberry mowing requires level ground. Land leveling is gaining in popularity as it allows mechanical pruning over burning. Land leveling must be done in such a way that prevents damage to the soil. For more information, contact the office of the Small Fruit Specialist.

### Burning

Pruning by burning does the most thorough job with no injury to the plant while at the same time eliminating most of the stubs and other growth which interfere with raking during harvesting. Burning can be through free burn (wild fires), using straw (expensive and time consuming) or using petroleum products.

A good burn kills lateral buds and shoots above ground level. Deep burns affect the soil organic matter layer that lies just under the leaf litter on the soil surface. Continued hard burns will deplete the soil organic matter levels, leave the rhizome stem sites exposed and decrease nitrogen levels. This results in poor growth than can lead to fields becoming “run-out” (short stems and low yields). Research has shown that as organic matter levels increase, so does the plant stem length. Hard burns also force growers to use nitrogen fertilizers to replenish the soil. This is costly and leads to potential problems in the buildup of soil nitrates.

Effective field burning must include the following practices:

- ! obtain the required permission from the local forestry office (this is law in Newfoundland and Labrador); inform the nearest RNC or RCMP Detachment and your local fire department;
- ! if possible, always burn when the ground is frozen or contains some moisture;
- ! only burn fields when the plants are dormant, in the spring or fall after the plants have dropped their leaves (an advantage of fall burning is that new stem growth can begin as soon as spring conditions permit);
- ! establish a fire break around the outside of the fields to prevent spreading into forest areas; and,
- ! have a crew at the site equipped with the necessary fire control equipment (such as backpack water pumps or a large water tank with hoses mounted on a vehicle) which is specified on the burning permit.

## Land Leveling

Land leveling in wild blueberry fields refers to improving land to:

- ! facilitate work with machinery and to minimize mechanical breakdowns;
- ! ensure a more uniform spread of pesticides and fertilizer;
- ! prepare the ground for the mechanization of pruning and harvesting;
- ! consolidate the fields;
- ! solve the problem of labour shortages during harvesting and pruning periods;
- ! improve the working speed of agricultural operations;
- ! diminish production costs; and,
- ! improve the profitability of the farm.

To ensure land leveling is properly done, you must:

- ! only level land when plants are approaching dormancy, typically around the first autumn frosts or before regrowth in the spring;
- ! prune prior to land leveling since rhizomes can become exposed (this has the added benefit of further exposing the terrain and stumps);
- ! reduce plant stress by completing the leveling in the same year;
- ! limit leveling to relatively moist field conditions since drought periods cause damaged or disturbed rhizomes to dry out;
- ! minimize soil loss;
- ! avoid wet conditions that will lead to soil compaction of seedbeds;
- ! minimize the impact on the density of plants and the percentage of field cover;
- ! allow a few years to pass after clearing operations before leveling (stumps are easier to pull and fresh stumps damage too large an area when removed);
- ! not leave bare steep slopes that could erode; and,
- ! avoid sharp turns with heavy equipment that breaks the soil surface.

Consider carefully the placement of windrows and ensure they are not pushed into streams. For

more information on land leveling and burning, contact the Small Fruit Specialist.