Fruit Shrubs
(Hazelnut, Serviceberry/Saskatoon, Cranberry, Elderberry)
Harvesting fruit with commercial value

Protocol for Resource Inventory

Inventory

The inventory should be carried out in three steps:

1. A cartographic analysis of the area to be inventoried and a first field visit to verify the targeted stands of plants.
2. Collection and recording of site data and carrying out yield tests within pre-selected stands.
3. An analysis of the results and recommendations.

The species being discussed are listed in the table below :

Common and Latin Names	Photos
Beaked Hazelnut *Corylus cornuta*	
Saskatoon, Serviceberry, Chuckley Pear, Sugar Plum *Amelanchier* sp.	
American Cranberry Bush, Highbush Cranberry, Squashberry *Viburnum trilobum*	
American Black Elderberry *Sambucus canadensis*	

1. Procedures for cartographic analysis and determining the stands to be inventoried

1.1 Locate potential stands of plants within the area to be inventoried using forest vegetation maps or the most recent ortho-photos (aerial) based on site characteristics preferred by each species:

- Partially open stands, such as along roadsides, depending on the species (deciduous trees for the Beaked Hazelnut and American Black Elderberry; coniferous trees for the Saskatoon Serviceberry and American Cranberry bush; also damp conditions for the Saskatoon Serviceberry and American Black Elderberry).
- Type of ecology associated with the codes COC (Beaked Hazelnut), AME (Saskatoon Serviceberry), VIE (American Cranberry Bush) and SAC (American Black Elderberry).

1.2 Measure the total area of each of the potential stands.

1.3 Select at least 20% of the potential stands. The selected stands must be positioned so that they cover the overall territory being studied and should ideally be located near road access points.

1.4 Determine the number of inventory plots to be established based on the total area of the stands, which is ideally one plot per five hectares.

1.5 Prepare the maps showing the stands to be visited. Print two copies, preferably on water-proof paper. The maps must have compass points, the scale (1:2500 to 1:3500), road access points, etc.

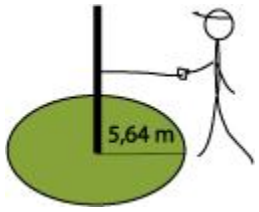
1.6 Visit and verify each stand or ecological type previously selected. Plan the establishment of the plots within approximately 1 km of the access point.

1.7 If the stands do not seem to correspond to what was targeted, increase the inventory to other unvisited sectors in order to ensure that 20% of the territory is inventoried.

2. Procedures for collecting & recording site data and yield tests within productive stands

2.1 Determine the exact location of the inventory plots within the sites with the help of cartographic information or GPS coordinates. Implement the inventory plots as presented in the following diagram.

To establish a plot, use a 5.64 m cord to demarcate a circle 100 m^2 (0.01 ha) in area. Mark the outline of the circle with forestry paint.



2.2 Record the information related to the plot in the "Recording Site Data" form including:

- General information (date, project title, GPS coordinates…)
- General physical characteristics of the stand area (soil type, slope, drainage…)
- Description of the productive plants (list the different height classes)
- An enumeration of the productive plants (count the number of plants according to different height classes)

2.3 Harvest all of the fruit (or nuts) on the shrubs within the plot, then weigh the fruit or nuts and record the data on the form.

Harvest Dates for Fruit and Nut Shrubs

- Beaked Hazelnut : August
- Saskatoon Serviceberry : July, August
- American Cranberry Bush : August
- American Black Elderberry : September

3. Procedures for analyzing results

3.1 Create a specific folder on the computer and record the data collected on the forms.

3.2 Transfer the GPS coordinates to the appropriate computer software and save a copy in a specific folder.

3.3 Mark off a polygon within each inventoried stand located in a zone 1 km from each side of the road. Measure the area of these polygons precisely.

3.4 Calculate the average quantity of fruit and nuts harvested (kg) for each of these polygons and do an extrapolation per hectare for each of the potential stands selected in step 1.3.

List of Materials

- ✓ Aerial maps and photographs of the area
- ✓ Forms (waterproof or not)
- ✓ Cord (5.64 m in length) attached to a stake
- ✓ Plastic bags for harvesting
- ✓ GPS
- ✓ Camera
- ✓ Pencil and felt-tip pen
- ✓ Flagging tape and forestry paint
- ✓ Field weigh scale
- ✓ Emergency kit

Recording Site Data
Fruit Shrubs
(Hazelnut, Serviceberry, Cranberry, Elderberry)
Evaluation of harvest potential

General Information

Project title:
Date:
Municipality:
Sector:
Evaluators:
GPS coordinates:
Photo numbers:

Physical description

Plot (5.64 m radius)

Shrub species:
Plot number:
Soil type:
Slope:
Drainage:
Type of population, type of ecology:
Silvicultural work, year:

Height Class	Number of Shrubs	Weight of fruit (kg)
Less than 1.5 m		
Between 1.5 and 2 m		
More than 2 m		
Average and total		

Comments :