

# Forestry Unit

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## Exercise 1

Please answer the following questions on a separate sheet of paper. We will be taking up the answers tomorrow in class

Don't forget about the QUIZ tomorrow!!!

### **1. Define AGS and UGS by naming 5 characteristics for each.**

#### AGS Trees

These are trees with full, healthy, dominant or co-dominant crowns with good leaf colour and minimal storm damage are primary indicators of health. One-third of the tree should be a healthy crown. **Always, always be looking up!**

- Straight, tall and defect-free stems, with less than 10 degrees lean from vertical.
- Forks which are 'U-shaped' are less prone to splitting, as opposed to 'V-shaped' forks.
- Trees free of diseases and pests, generally with no visible fungi or deforming cankers.
- Vigorous, tight bark that doesn't flake off easily.
- Hardwood trees should have no branches or dead branch stubs on the lower portion of their stems.
- Conifers should have small diameter branches growing horizontally from the stem and showing a tendency to 'self prune', or fall off on their own.

#### UGS Trees

These trees are the highest priority during a commercial harvest, be used for personal firewood, or cut and left on the ground as large woody debris.

- Poor crown condition: very small and flat showing excessive dead branches, weather damage or general decline.
- Poor crown position, overtopped by neighbouring trees.
- Poor stem form with defects such as seams, large dead branch stubs, splitting, or major forks.
- Excessive lean, more than 10 degrees from vertical.
- Abnormal 'butt swell' in the bottom one to two metres of the stem.
- Poor bark which flakes off easily.
- Exposed roots.

### **2. Based on the plot from yesterday, which forest management system would be appropriate to use in order to reach the EXACT ideal basal area and why?**

Selection system:      The plots were all slightly too dense. By selecting to remove only the worst of the UGS trees, your forest's health would be greatly improved.

Name: \_\_\_\_\_

**3. When selecting a "crop tree for future SAW LOG production, what characteristics are you looking for? Identify four (4).**

- Healthy - free of defects or disease
- Tall and straight
- Dominant
- One third total height of tree is live crown
- Vigorous growth

**4. What is a cavity tree and what function does it serve in the forest ecosystem?**

A standing tree, dead or alive that has a hole or holes where wildlife can make nests, dens or simply escape from predators.

**5. Does the time of year change the fire susceptibility in the forest? If yes, which season is most likely to have a forest fire?**

Spring: The forest is very dry in the late spring before the needles and leaves begin to grow

**6. Name ten hardwood trees and 5 softwood trees**

Answers will vary

**7. Now place those trees in the following categories: tolerant, intolerant and mid-tolerant**

Answers will vary

**8. Name three major forest products and three minor forest products**

Major: pulp, paper, lumber

Minor: Turpentine, maple syrup, nuts, oils, resin, mushrooms, medicine

**9. What are the two major silviculture systems**

- Even-aged
- Uneven-aged

**10. In a shelterwood management system, the overstory trees are removed in a series of cuts. Name three of those cuts.**

- The preparatory Cut
- The seed (regeneration) cut
- the removal cut

Name: \_\_\_\_\_

**11. Name five factors to consider when choosing a silviculture system**

- Contribution of the stand to the forest landscape
- Goals for the forest stand
- Current stand and species characteristics
- Species desired for regeneration
- Site potential
- Fish and wildlife concerns and limitations
- Environmental concerns and limitations
- Natural heritage concerns
- Nature of the current and future markets

**12. Name 4 different types of mast trees**

Oaks (acorns)

Hickory (Hickory nuts)

Beech (beech nuts)

Black Cherry (Drupe)

Basswood (fruit with pit)

Butternut (nut)