

Broadleaf Forest Health Free Growing Damage Criteria

Unless otherwise stated in regulation or an approved FDP or FSP stocking standard, an acceptable hardwood crop tree must:

- not have a tree pith that is laterally displaced more than 30 cm from the location of the root-crown pith¹.
- not originate from a cut stump².
- have at least one dominant live leader³.
- not have a wound that is greater than 10% of the stem circumference nor is greater than 10% of the total length of the stem.⁴
- not have any fungal infections or insect infestations affecting tissues below the bark surface, visible without destructive sampling⁵.
- not be browsed so as to limit its ability to become a crop tree.

¹ A requirement of the Establishment to Free Growing Guidebook, Prince George Forest Region, May 2000, Appendix 6, Boreal Broadleaf Stocking Guidelines, BWBS.

² Stems originating from the sides or cut surface of stumps are very susceptible to breakage at the coppice point

³ The objective is that the tree has a single stem that will develop into a healthy crop tree. Accordingly, a healthy, free growing broadleaf tree must have an identifiable live leader. It is not important if a portion, but not all, of the leader is browsed or killed for example by venturia blight.

⁴ This criterion is modified from the conifer criterion, and threshold percent values are chosen subjectively. Research is needed to determine more exactly the size of an open wound at free growing assessment that is likely to limit the development of a healthy crop tree. A wound is defined as an injury in which the cambium is dead or completely removed from the tree exposing the sapwood. Measure the wound across the widest point of the exposed sapwood. Healed-over wounds (= scars) are acceptable. Fire or sunscald damage can also cause wounds. Injury of broadleaf stems is considered an important entry court for decay organisms.

⁵ Visible stem infections include cytospora canker or sooty-bark canker, and visible insect infestations, such as poplar borer. The significance of some diseases, such as armillaria root disease, to aspen is unknown or uncertain, and several cannot be feasibly identified by visual features during free growing surveys.