

Aspen Silviculture Decision Matrix

This document provides a simple overview of some common silvicultural strategies for management of aspen communities in Minnesota. Additional details are available in the aspen covertype fact sheet and in Minnesota's *Voluntary Site-Level Forest Management Guidelines* binder.

	Landowner Objective		
	Wildlife	Recreation or aesthetics	Timber
Immediate harvest	<p>For game wildlife, create small patches of different age classes of aspen. Ideally all age classes are represented in each 40-acre block.</p> <p>For nongame wildlife, leave standing dead trees, residual tree species diversity, and some unharvested areas, particularly along riparian corridors.</p>	<p>Consider leaving unharvested buffer strips along trails and roads. Occasional openings along trails provide wildlife viewing opportunities. Leave some residual conifers for diversity and wildlife. Also consider leaving a few residuals with attractive or colorful foliage and (or) unique or unusual characteristics.</p>	<p>Aspen is almost exclusively managed by clearcutting. Aspen sprouts need full sunlight for vigorous growth.</p> <p>For larger harvest units leave residual trees along riparian corridors and / or throughout harvest area.</p>
Harvest unit size	Ideally 2.5 – 10 ac. if feasible.	Depends on landowner preference and stand density. Some minimum size is necessary for the harvest to be commercially feasible.	In general, larger harvest units can reduce harvest costs and maximize regeneration.
Regeneration considerations	<p>To maximize aspen sprouting, harvest in winter. Leave residuals at edges, not in the center, to maximize sunlight throughout harvest area. Residuals left in the center of the harvest unit should be in dense clumps and/or adjacent to riparian areas. When leaving residual aspen, select clones which appear healthy, have good form, and vigorous crowns.</p> <p>To promote conifers, consider longer rotations and/or leave residual conifers for seed source after harvest.</p>		
Future management	<p>Monitor regeneration. Consider underplanting conifers to promote species diversity and vertical and horizontal structure.</p>	<p>Monitor and remove potential hazard trees near trails or roads.</p>	<p>Monitor stand health. Diseases such as <i>Hypoxylon</i> canker and white rot can significantly reduce stand productivity and value. Consider salvage harvests for heavily infested stands.</p>
Other considerations	For detail and additional guidelines, consult Minnesota's <i>Voluntary Site-Level Forest Management Guidelines</i> binder.		