



Conservation Practice Fact Sheet

Forest Stand Improvement

Forest Stand Improvement is implemented to improve forest stands for a specific purpose. Most often the objective is to improve timber volume & quality, forest health, water quality, or wildlife habitat. “C r o p” trees within the stand that are o f desirable species, age class and form are retained and favored while competing “weed” trees are culled (i.e. cut or girdled). This releases the desirable trees from competition, increases growth rates and allows managers to shape the future forest.

Did You Know?

Maintaining and improving a forest is as important as planting a new one. Very few forests exist that cannot be improved for wood production.

Why is it important?

Forest stand improvement allows landowners to help meet their objectives for their forest land. Implementing this type of conservation practice can increase diameter growth rates and crown expansion by reducing competition for the target trees. This can help trees grow to sawlog size more quickly as well as produce more hard and soft mast (nuts, seeds and fruit). Those interested in increasing available food for wildlife will find significant increases in mast from released trees.

Forest health also benefits as poorly formed, unhealthy or damaged trees are culled to give additional growing space to the healthy trees. These treatments will also allow the landowner to maintain important tree species that might otherwise be lost without management. As young stands transition to older stands, trees that need full sunlight to persist may be crowded out. A forest stand improvement will allow the landowner to maintain valuable timber and wildlife species on their woodlots as the forest matures.



Turkey, bear, deer and other wildlife will benefit from increase in seed, nut and fruit production.



Common Approaches

- **Thinnings** of overcrowded stands of trees remove poorly growing stock first, giving reserved (“leave”) trees room to grow faster and healthier.
- **Crop or Single tree release** encourages individual trees with the greatest potential by removing trees crowding their canopy.
- **Girdling** is typically completed on poor quality and large overstory trees to release desirable regeneration, provide growing space to desirable trees and to create snags for wildlife. Girdling involves herbicide or double cuts through bark and cambium that encircle the trunk. Girdling is faster, cheaper, and safer than felling “weed” trees.
- **Patch Cuts** of 1/2 to 3 acres can maintain or improve your woods. Use smaller patches for black ash, maple & basswood, larger for birch and oak. Patch size determines what species will regenerate. Leave seed trees on the patch edges. Leave slash in the patch to reduce browse damage of seedlings.

Getting Started

Contact Carlton SWCD to learn about the various programs for individual landowners. A forester will discuss your goals and objectives for your land. **Call 218-384-3891 to get started today!**



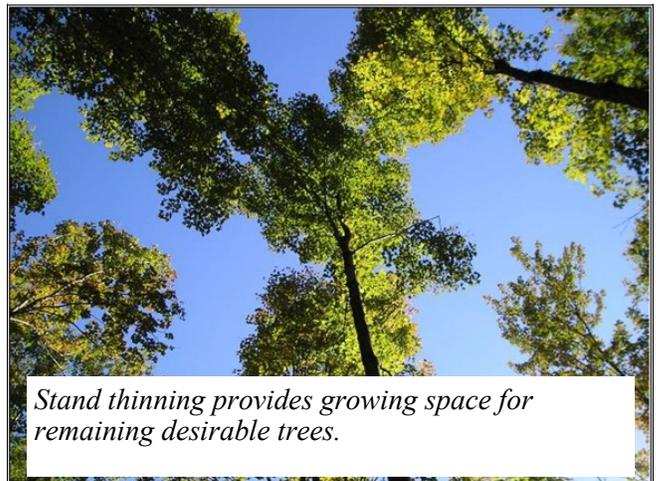
808 3rd Street
Carlton MN 55718

What can I do?

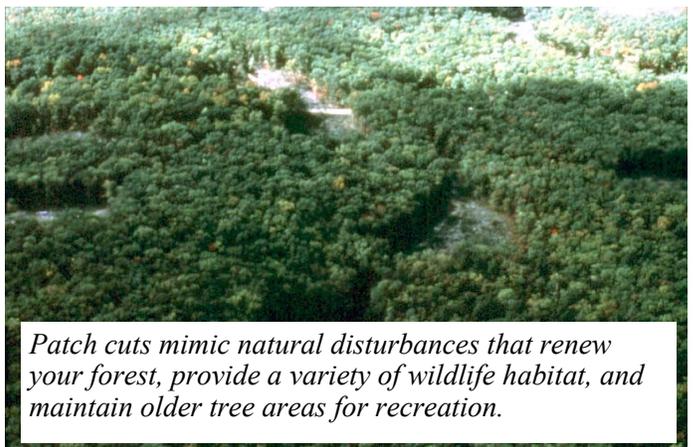
Work with a forester or land manager to determine if forest stand improvement is appropriate on your woodlot. Carlton SWCD has various programs available that can provide the help of a professional resource manager and funding assistance for habitat improvement and forestry practices to meet your goals.



When Red Pine have less than 1/3rd of their stem in live branches its time to thin. Overcrowded plantations lose timber growth potential, are susceptible to windthrow and insect damage, are a fire hazard, and are poor wildlife habitat.



Stand thinning provides growing space for remaining desirable trees.



Patch cuts mimic natural disturbances that renew your forest, provide a variety of wildlife habitat, and maintain older tree areas for recreation.

***Call today to learn more! (218) 384-3891
Visit our website: www.carltonswcd.org***