

Jack Pine

Project Subject/Title: Junior Jack-Jack Pine Scarification

Contact Person: Eric Serrine (715)372-5678 ext.105

Abstract: Scarification with anchor chains was utilized in a jack pine stand located in the Brule River State Forest in 2011. The goal of the scarification was to successfully establish jack pine regeneration by exposing the mineral soil which would create a desirable seed bed for the jack pine. Because of the presence of aspen and other mixed hardwood species, there was potential for heavy competition from these species. The site was revisited in 2014 to determine the success of jack pine regeneration and to assess the aspen and hardwood competition present in the stand.

Trial Location:

County: Douglas

Township: 47N **Range:** 10W **Section:** 25,36

GPS Coordinates: Lat: 46°31'21" **Long:** -91°34'21"

Property Name: Brule River State Forest

Baseline Stand Data

- *Cover Type:* Jack Pine
- *Acres:* 24
- *Habitat Type:*
- *Soil Type:* Rubicon Sand
- *Year of Origin:* 2011
- *Total Height:*
- *Site Index Species and Site Index:* 68
- *Mean Stand Diameter:*
- *Total Basal Area per Acre:*
- *Other stand Condition:*

Prescription and Methods:

- *Type of Prescription:* Clearcut followed by site preparation
- *Year Initiated:* 2011
- *Establishment Methods:*

The stand was harvested in 2011 and then scarified with an anchor chain shortly after the harvest was completed.

- *Data Collection Methods:*

The stand was revisited in 2014. A regeneration survey was conducted by establishing mil-acre plots throughout the harvested area. Competition from undesirable species such as aspen and hardwood was also assessed.

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Results: Results from the regeneration survey done in June 2014 showed that jack pine was the most numerous regenerating species with nearly 3,000 stems per acre. Red maple, aspen and oak were also found in the stand.

Discussion/Recommendations: There were areas of thick aspen patches found within the site that limited regeneration and growth of all other species. Oak and red maple were found throughout the site but showed varying height growth and were not serious competitors in areas that also contained jack pine. Overall, jack pine regeneration was relatively patchy and was most numerous in areas with greater scarification.

