

Jack Pine

Project Subject/Title: Deer Path Ranch Salvage

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Abstract: Multiple jack pine stands near the Wisconsin River north of Eagle River in Vilas County were negatively impacted by an outbreak of the jack pine budworm. The stands were set up as "Blocks" and were harvested in 2007. The northernmost stand (Block 1) was to be harvested first while the stand south of Rummels Road (Block 2) was to be harvested after the completion of Block 1. A combination of disking/aerial seeding and bracke/hand planting were utilized in the two stands. Scarifying the sites appeared to be the best way to successfully regenerate jack pine in the stands because of the close proximity to the Deer Path Ranch.

Trial Location:

County: Vilas

Township: 42N **Range:** 10E **Section:** 28

GPS Coordinates: Lat: 46°5'25" **Long:** -89°15'9"

Property Name: Vilas County Forest

Baseline Stand Data

- *Cover Type:* Jack Pine
- *Acres:* 131 acres
- *Habitat Type:* PQE
- *Soil Type:* Rubicon Sand
- *Year of Origin:* 2009
- *Total Height:*
- *Site Index Species and Site Index:* 58
- *Mean Stand Diameter:*
- *Total Basal Area per Acre:*
- *Other stand Condition:* Stand was harvested as a result of jack pine budworm.

Prescription and Methods:

- *Type of Prescription:* Clearcut (Salvage)
- *Year Initiated:* 2007
- *Establishment Methods:*

The blocks were set up for a clearcut harvest in 2007 in order to salvage the jack pine that was affected by the jack pine beetle. All non-merchantable trees with a diameter of 1 inch or greater was to be cut. After the harvest, block 1 was scarified with a disk and then aerial seeded with ½ pound of seed per acre. Block 2 was scarified with a bracke and hand planted with 910 seedlings/acre.

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- **Data Collection Methods:**

The stand was revisited in 2014. Forty mil-acre regeneration plots were established throughout the 2 blocks. Along with the number of regeneration, competition and regeneration height were also recorded.

Results: Block 1 (disk/aerial seeded) contained 2,250 stems/acre of jack pine. The average height of the regeneration was about 4 feet. Jack pine was the only tree species found within the plots. Block 2 (bracke/hand planted) contained 1,300 stems/acre of jack pine. The average height of the regeneration was about 4 feet but had a lot of variability. Competition from cherry was present in both stands but more abundant in Block 2.

Discussion/Recommendations: Although there were red pine, white pine and balsam fir present before the harvest, there wasn't any seen when the stand was revisited in 2014. The cherry that was in Block 1 was not a serious competitor with the established jack pine. The cherry found in Block 2 was more significant in the eastern side of the stand. Overall, the form of the jack pine in Block 1 was better than in Block 2. A prescribed burn in these stands may have been a good option for reducing the amount of slash present and to prepare a favorable seedbed, but was most likely not a good option because of the close proximity of residential areas.

