

***NIPISSING FOREST RESOURCE MANAGEMENT  
PLANTING TRIAL  
REPORT – JULY 2007***

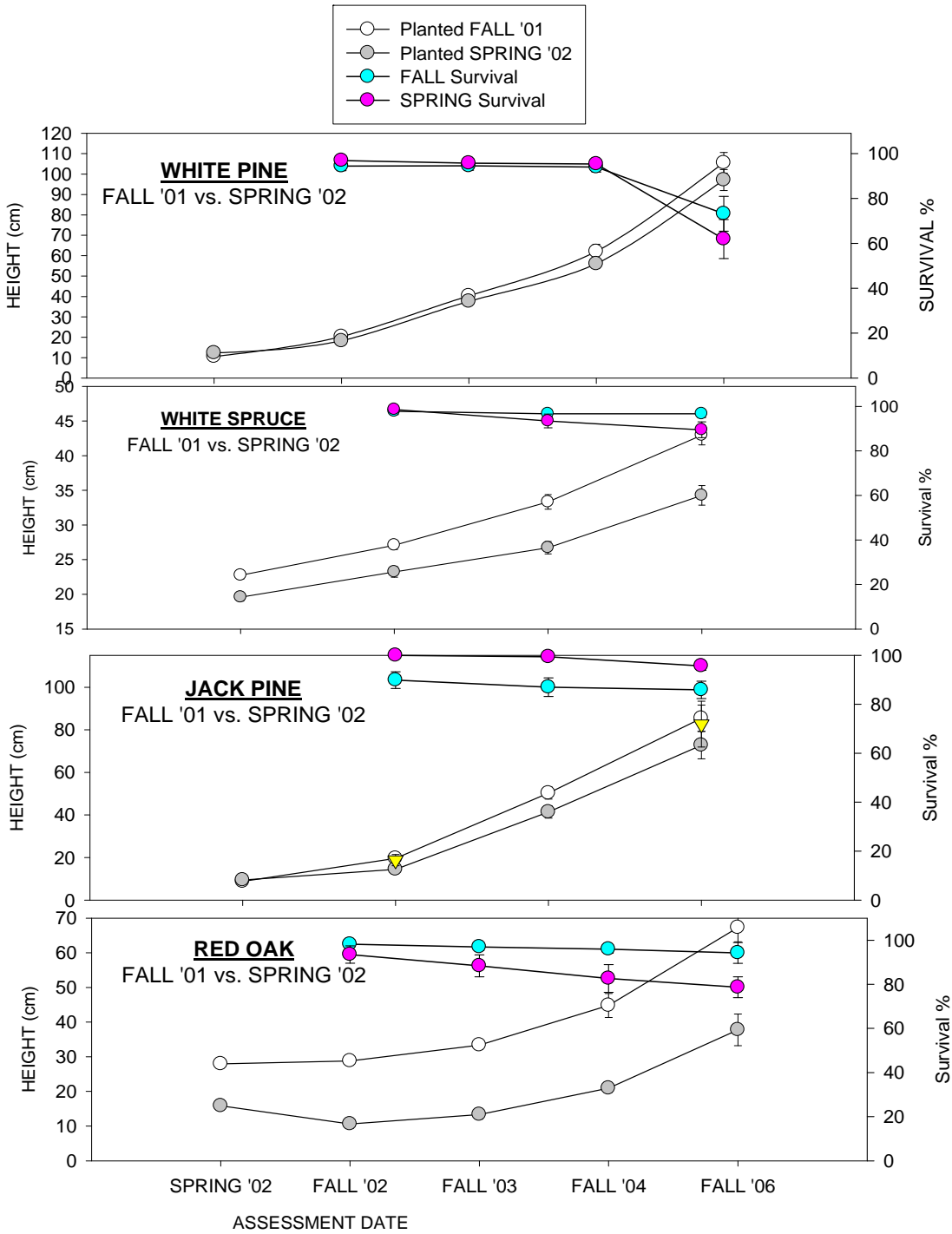
Project Name:	Fall 2001 vs. Spring 2002 Planting
Crop(s)	PW02NMI SW02NMI PJ02NWE OR02NWE
Factor(s)	Fall planting Spring planting
Rationale	Nipissing Forest Resource Management has been planting trees in the fall since 1997 and wished to assess the effectiveness of this silvicultural practice. Fall planting has been done successfully in other parts of Ontario. Seedlings planted in the fall have the advantage of being on site and ready to grow in the spring as soon as weather conditions allow.
Methods	<p>For this project, sites were located in McWilliams Township, Block 13 where the above crops were planted in the fall of 2001. Seedlings from these crops were still located at the nurseries, presenting an opportunity to compare fall to spring planting using the same crops.</p> <p>Permanent sample plots (3.99 m radius) were established within the plantations of each of the crops and each planted tree was marked with a flagged pin. Within 1 metre of these fall planted trees, a tree from the same crop was planted in the spring of 2002.</p> <p>Field measurements (height and health) were taken at establishment and at the end of the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 5<sup>th</sup> (2006) growing seasons.</p> <p>Surveys were also conducted in operational plantations of white pine, red pine, jack pine, red oak and white spruce. Fall planting from 1997 – 2000 and the corresponding spring plantations (1998 – 2001) were assessed.</p>
Results	<p>Figure 1 shows the growth and survival for each species over the first 5 years.</p> <ul style="list-style-type: none"> <li>• In every case, fall planted seedlings have grown faster than spring planted seedlings.</li> <li>• Survival of fall planted jack pine (83%) is lower than spring planted seedlings (88%). However, for the other 3 species, the fall planted seedlings have survived better than their spring counterparts.</li> <li>• Results from the operational plantations were similar to the trials;             <ul style="list-style-type: none"> <li>○ Survival for red pine and jack pine was lower for fall planting.</li> <li>○ Overall fall planted seedlings have grown faster than spring planted seedlings.</li> </ul> </li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>• Fall planting is feasible on the Nipissing Forest, perhaps even preferable.</li> <li>• Site selection and timing are important to give the greatest chance for success. Planting dates should be flexible to avoid drought conditions. There is a chance of frost heaving if heavier sites are planted in the fall. Fall planting on heavier clay soils needs further investigation.</li> </ul>



**Photo 1.** Jack pine showing root growth already started on the fall planted seedling (right) compared to the seedling about to be planted in the spring (left)



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**Figure 1. Nipissing Forest Resource Management / Vermilion Forest Management  
Fall vs. Spring Planting 2001 / 2002**



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