

Building Partnerships by Planting Trees

By Nancy Young

Over the past month, the Forestry Research Partnership, based at the Canadian Ecology Centre near Mattawa, with the help of a number of volunteers and community partners, has been busy coordinating and planting three separate white pine progeny trials near Petawawa, Englehart, and Kirkland Lake. The establishment of these tests required a tremendous amount of time, energy, and co-operation – all of which were plentiful during the operations! The planting of the trials was used as an opportunity for team building between members of the Forestry Research Partnership, as well as within the local community through the involvement of groups such as Chippewa High School's Raider Aid Club, who joined the planting crew in Kirkland Lake during the week of May 15th. Raider Aid is a group of 20 forward-thinking students from grades 10-12 who are 'always looking for ways to better our environment, our community, and the world that we all share'.



“Who knew that fighting off black flies and hard labour could be fun?” said Raider Aid student Kirstin Ten Eyck “I had a great time and gave back to the environment.” According to fellow Raider Aid member, Sonia Kaminski-Morneault, “Tree planting was a great experience! It made me appreciate the nature in and around North Bay. I can’t wait to go back in 30 years and look at our trees.”

Other partners who offered their blood (the black flies were hungry), sweat, and tears to the project included the Northeast Seed Management Association (NESMA), the Canadian Forest Service (CFS), the Ontario Ministry of Natural Resources (OMNR), Heritage Reforestation Inc., as well as Forestry Research Partnership staff, Tembec Inc. and a number of hardy volunteers. These workers carried out a multitude of tasks, including very precise tree layout, planting, tagging, auditing, and collaring (putting cardboard collars on each tree to cut down on vegetative competition and enhance soil moisture). The plant was not a typical effort to regenerate the forest, but a very meticulous scientific study that will be measured and examined for years to come.

A progeny trial is a result of many years of painstaking research into the genetics of specific tree species – in this case white pine. In the beginning, approximately 40 years ago, cuttings were taken from the tops of trees whose growth and vigour seemed to be above-average; these were grafted onto root stock, then planted and grown until maturity. Scientists pollinated these trees in order to keep track of the genetic families of the progeny, which were then planted in several seed orchard in central and north-eastern Ontario. When the trees began to produce seed (approximately 15 years old), those having the most desirable genetic traits (called ‘plus trees’) were selected, and their seed was combined to produce a second generation of seedlings. These are the trees that were planted in the progeny trials, where they will serve a twofold purpose: the families displaying the most desirable characteristics will be used to produce seed for widespread planting in north-eastern Ontario, and the least vigorous families will be removed from the seed orchard in a process called roguing. This type of breeding program involves no manipulation of genetic material, only the controlled breeding of superior growing trees. White Pine restoration in north-eastern Ontario is a priority for the Ontario government and many forest products companies.

Overall, the project was a resounding success with a total of over 15,000 white pine planted; close to 6,000 trees for each of the three trials - each of which was completed in less than two days! The Forestry Research Partnership would like to take this opportunity to thank all of the workers for lending their time and their backs to continuing this valuable research! Special thanks to the Raider Aid Students and Teachers of Chippewa High School in North Bay!