

Panel Discussion: Red Lake Forestry Greenhouse Operations

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Introduction

The Reservation

The tribal lands of the Red Lake Band of the Chippewa Indians are comprised of four districts in north central Minnesota. The Diminished Reservation, where most tribal members live and work, is approximately 532,000 ac (215,290 ha) in size and includes forests, wetlands, and grasslands. An additional 262,000 ac (106,030 ha) comprise ceded lands, called the Northwest Angle, that are geographically isolated by water and international boundaries from the State of Minnesota.

The Red Lake Reservation is unique for two reasons: 1) it is one of only two closed reservations, with large contiguous ownership by members of the band; and 2) there is a relatively low level of disturbance following the initial Euro-American settlement in the region.

History

In 1863, during the Sioux uprising, the U.S. government attempted to destroy all tribes in the State of Minnesota by removing their lands (cessions of land). The Dawes Act of 1887 and the Nelson Act of 1889 “legalized” these land cessions and took millions of acres of tribal lands. In 1889, the Red Lake Band sent a delegation to Washington, DC, to protest these acts. The Band stood alone and refused to consent to land removal. As a consequence, the Red Lake Indian Forest, a 50,000-ac (20,235-ha) tract, was created by a congressional act to give the Red Lake Band a permanent economic foundation. Although the lands, by law, belonged to the Red Lake Band, government mismanagement and timber company intervention continued.

A lawsuit was filed in 1951 on behalf of the Red Lake Band by Chairman Roger A. Jourdain claiming mismanagement of timber. A total of 13 claims were filed against the U.S. government under the Indian Claims Commission Act. Claim number 6, for mismanagement of the Red Lake Indian Forest, was filed for losses in timber that exceeded U.S. \$331.5 million. This claim was in process for 50 years.

Red Lake Forestry Greenhouse

History

Tribes with timberlands across the United States received funding allocated to tribal forest development programs in 1977. In 1978, Red Lake tribal members constructed the first greenhouse and became the only Midwest Region tribe to operate its own greenhouse. This greenhouse was a traditional Quonset style greenhouse covered with two layers of 6-mil polyethylene.

Present

The government provided tribes with additional funding in 1977, but no follow-up was done in this program. Although the lifespan of the greenhouse was 20 years, it is still standing and in use after 27 years, albeit in a state of disrepair.

Operations—The Red Lake Greenhouse grows a winter and a summer crop every year. Winter crops are grown in the greenhouse for up to 7 months, while summer crops are only grown for 3 months and are consequently much smaller. The highest outplanting success has been achieved when 2-year-old stock is used.

During the early years of greenhouse operations, seedlings were grown in the paper pot container system. However, it was found that after 5 to 8 years, the pots did not break down after outplanting. Due to this problem, Styroblock™ containers became the container system of choice in 1985. The 160/90 blocks (5.5 in³ [90 cm³]) were used, and this system continues to be used at present.

Outplanting—All tree planting is contracted out to tribal members; planters are required to show tribal membership and have a business license. Planters are given the opportunity to work in the greenhouse if interested. This allows them to see and understand the entire process, which in turn causes them to be more responsible during outplanting and more interested in survival rates. In addition, there is constant collaboration between the nursery and the planters, thus contributing to the production of quality seedlings necessary for reforestation success.

The Department of Forestry is considering requesting the involvement of loggers in outplanting operations. Loggers tend to pile slash in adjacent planted sites, causing damage to existing seedlings. If loggers were involved in outplanting, they would understand the work required and length of time necessary to reforest a site.

Future

The lawsuit filed in 1951 against the United States Government over mismanagement of tribal forest lands was finally settled in 2000 for a total of U.S. \$53.5 million. The settlement required that a portion of that total (U.S. \$40 million) be set aside in a permanent fund to be managed by the Red Lake tribe. It also required that a 50-year reforestation plan be developed by the tribe. The reforestation goals in this plan include the conversion of 1,000 ac (405 ha) back to pine, which will require the production of 1 million seedlings per year.

In 2000, a Greenhouse Task Force was formed, including tribal members and outside experts, to initiate a future plan for the greenhouses. This plan includes seven state-of-the-art greenhouses where each species could be grown in its own environment. Students from tribal schools will participate in greenhouse operations to learn the various aspects of nursery culturing. The entire Red Lake Department of Natural Resources (DNR) complex will include shadehouses and seed orchard areas. In addition, a fire center and helicopter pad and the main DNR complex, including Fisheries, land management, water management, environmental management, forestry, and wetlands will be located in this area.

Lessons Learned

Twenty-seven years of greenhouse operation and 5 years of greenhouse planning have resulted in these take-home lessons for anyone who wishes to construct a greenhouse of their own.

1. Setting a reasonable timeline early in the process for various segments of greenhouse construction is very important.
2. All contractor options must be explored. Because greenhouses are specialty projects, local contractors may not have the expertise to deal with this kind of construction. “Turn key” contractors are available, and it is best to hire personnel with experience.
3. Road blocks must be identified early, including all phases of planning, timing, and building.
4. All options should be kept open and alternatives should be formulated. Because projects must be started on time, alternative funding may be necessary, especially if politics are involved. Alternative construction sites may be necessary, and energy sources must be determined.

Acknowledgments

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