



North Dakota Forest Service Celebrating “100 Years of Forestry”



CELEBRATION OF SUCCESS

The North Dakota Forest Service is celebrating *100 Years of Forestry* in 2006. The centennial theme: “**rooted in the past – growing towards the future**” honors past forestry accomplishments and highlights the agency’s future direction for the next century!



The ND Forest Service and MSU-Bottineau campus share their “roots” and centennial, as they both began when the State School of Forestry was founded on June 8, 1906.

Plans are being made for a year-long celebration to be held in conjunction with regularly scheduled events like Arbor Day, Tree City USA and the Trees Bowl. Our success comes by making a difference in the lives of all North Dakotans by caring for, protecting and improving forest resources. The focal centennial celebration will be held Friday, July 14, through Sunday, July 16, 2006, at the headquarters in Bottineau. The North Dakota Forest Service shares its “roots” and centennial with the MSU-Bottineau campus, as they both began when the *State School of Forestry* was officially founded on **June 8, 1906**.

The centennial celebration begins on Friday, July 14, with the opening of two traveling exhibits. A Smithsonian exhibit entitled “Inspirations from the Forest” is an exclusive showing in North Dakota. The exhibit will demonstrate how forests and nature serve as inspirations for creating works of artistic and musical expression; how artists use their work to tell a story; and how some art is or becomes a cultural legacy.

The exhibit is comprised of a quilt and 16 freestanding panels with images from the participants and the USDA Forest Service staff at the 2005 Folklife Festival in Washington, D.C. A variety of artists will also be on hand at the exhibition demonstrating their woodworking, painting and musical skills. Many will have their products available for sale to the public.

The other traveling exhibit is from the North Dakota Museum of Art at Grand Forks and is entitled “Shelterbelts.” Five years ago, the museum commissioned artists to create works about the landscape of the Northern Plains, and the population shift that is taking place as people migrate from small towns, family farms, and working ranches to larger cities. The “Shelterbelts” exhibit consists of 40 framed black and white and colored digital photos of shelterbelts and trees. Some portray shelterbelts that were originally planted after the Dust Bowl Era and are now fully mature, as well as some pictures of old trees currently being removed to make way for contemporary agricultural practices.

Both exhibits are free and open to the public on Friday and Saturday from 9 a.m. to 6 p.m. and Sunday from 1-4 p.m. The exhibits and artists will be located at the North Dakota Forest Service field office at 1037 Forestry Drive in Bottineau.

On Friday evening, the opening centennial banquet will begin with the ceremonial packing of a time capsule by the invited dignitaries and reunion participants. The time capsule will be placed in the cornerstone of a new addition being added to Thatcher Hall on the MSU-Bottineau campus. The time capsule will include a variety of items that should be of interest to those who open it one hundred years from now.

On Saturday, July 15, participants registered for the centennial weekend will have an opportunity to be part of a free Forestry Tour beginning at the Molberg Forestry Center at 8 a.m. The tour will include a trip to the Turtle Mountain State Forest; a stop at the newest tourist attraction...the Mystical Horizons Overlook; and a final stop at the Towner State Nursery to view the production of 1.2 million evergreen seedlings. The tour will conclude with a picnic lunch at the nursery. Pre-registration for the Forestry Tour is required by June 1.

The Forestry Tour participants will return to Bottineau by 1 p.m. so they may enjoy a variety of activities scheduled for Saturday afternoon. The activities include rural humorist Rodney Nelson, Crazy Fingers Gordy Lindquist on the piano, Tom Gibson portraying voyageur Gibson with the Lewis and Clark Expedition, a tree climbing demonstration, an art show and some clowns. The afternoon activities conclude with a ceremonial tree planting near the North Dakota Forest Service headquarters at 5 p.m. Everyone is invited to a dance with Kid Hollywood that evening at 7:30 p.m.

Sunday morning will include an interdenominational church service at 10 a.m. followed by a brunch. The free traveling exhibits will be open at the North Dakota Forest Service field office from 1-4 p.m.

In honor of its centennial, the North Dakota Forest Service is providing special centennial seed packages, which are free and available upon request. A short historical booklet describing the roots of forestry in North Dakota will also be available.

FOR MORE INFORMATION

about the North Dakota Forest Service Centennial Celebration or to register, visit www.state.nd.us/forest or www.misu-b.nodak.edu or call Glenda Fauske, Information and Education Coordinator for the North Dakota Forest Service in Bottineau, at (701) 228-5446 or e-mail her at glenda.fauske@ndsu.edu

THE ROOTS OF FORESTRY



When settlers came to North Dakota, trees were so scarce that homes were constructed from sod and heated with buffalo chips. The lack of trees quickly motivated them to plant trees for

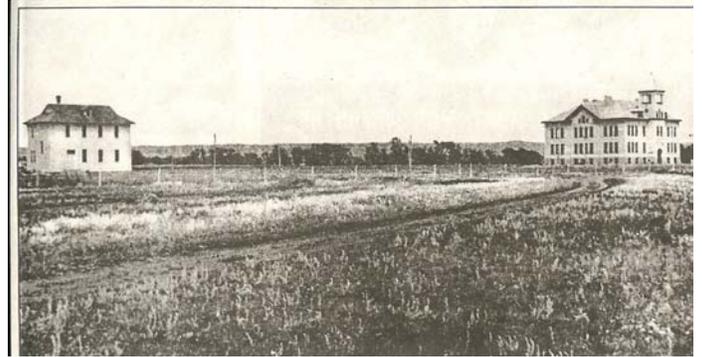
When the early settlers came to North Dakota, trees were so scarce on the prairies that homes were constructed from sod and heated with buffalo chips. The lack of trees for housing, fuel, fencing and protection against the harsh environment quickly motivated the homesteaders to plant trees.

When North Dakota became a state in 1889, the State Constitution *authorized* a **State School of Forestry** “to develop tree and shrub species for planting, and suitable planting techniques.” Unfortunately, the State never *appropriated* any money for the building.

Through an election on November 6, 1894, Bottineau was selected as the site for the State School of Forestry, because of its close proximity to the largest tract of native

forest in the state...the Turtle Mountains. Twelve years after the election, the state had still not *appropriated* any money for the School.

The Bottineau businessmen took it upon themselves to raise \$2,500 and they officially founded the School on **June 8, 1906**. A two-story wooden School was completed on 15-acres of land donated by the Turf Club. The State School of Forestry, under the direction of the first president J. Allen Kemp, opened its doors on January 7, 1907, with 30 students. Within months, the State Legislature appropriated \$25,000 for the construction of a greenhouse and brick structure named Main Building. Forestry...the science, art and practice of creating, managing, using and conserving trees to meet the needs of future generations...took root in North Dakota.



The first wooden School of Forestry built by Bottineau Businessmen and the Main Building later built by the State.

In 1913, the Legislature passed the **Forestry Nursery Act** that established North Dakota's first State Forestry Nursery at Bottineau, which opened for production on the west edge of the city in 1915. This legislation was unique among the Nation's state forestry departments, because the President of the School of Forestry *also became the State Forester*. F. W. Smith was the first State Forester, and President.



The first State Nursery at Bottineau opened in 1915.

By 1945, the programs and staff had expanded to such a great extent the Legislature separated the budgets for forestry and instruction, and the *North Dakota Forest Service became a branch on the Bottineau college campus*. Both still remained under the direction of the President/State Forester.

In 1951, the North Dakota Forest Service started growing trees at the former USDA Forest Service nursery two miles north of Towner. In 1977, the Bottineau Nursery was closed because of poor soil and water, and all tree production was consolidated at the Towner State Nursery.

In 1968, the Board of Higher Education aligned the School of Forestry and the North Dakota Forest Service with North Dakota State University, because of their similarity to the land-grant institution's mission of *servng the state through forestry and agriculture instruction, research and public service*. The School of Forestry was renamed NDSU-Bottineau Branch and the title of President was changed to Dean.

Over time, things changed and the School began focusing on attracting more students through technical vocations and teaching. In 1996, the North Dakota University System realigned the School with Minot State University and changed the name to MSU-Bottineau. The North Dakota Forest Service remained with the land-grant institution and the State Forester continues to report to the President of North Dakota State University.

As we look to the future of North Dakota's forests and the many opportunities that lie ahead, it's important to remember the pioneers of forestry that built a strong foundation of dedication and professionalism that continues today.

SEEDS OF CHANGE

North Dakota was considered part of the Great American Desert. With hundreds of years of annual prairie fires in this semi-arid climate, the grasslands became established and trees had difficulty competing. The natural woodlands of North Dakota covered about 700,000 acres, spread across the state. One of every 100 acres is naturally forested. Forests and other woody vegetation are generally confined to moist riparian sites along lakes, streams and rivers.

The native forests are characterized by both eastern and western forest types. North Dakota forests are comprised of four major types: elm-ash-cottonwood, aspen, oak and ponderosa pine. Elm-ash-cottonwood, the most abundant eastern forest type occur in riparian areas along the Missouri, Red and Sheyenne Rivers. Aspen, and the less extensive oak type, are concentrated in the Turtle Mountains, the Pembina Hills and the Devils Lake region. The state's smallest forest type, ponderosa pine, is limited to the Badlands of western North Dakota.

Early homesteaders, accustomed to more wooded homelands, demanded government support for tree planting. A tremendous interest in tree planting was ignited because of the lack of trees for building materials, fuel and protection from the harsh winds. The Timber Culture Act came to pass in 1873. It provided for the planting of trees to a portion of the acres homesteaded as a way to acquire land. Nearly 8,000 North Dakotans gained title to 1.2 million acres of land under this provision, which ended in 1891. Records show 1,226,606 acres of trees were planted.

A variety of commercial nurseries were established to meet the demand for the trees and shrubs of the Timber Culture Act. Nurseries also started producing ornamental and fruit tree stock for farms and those living in communities. It is estimated that among the nurserymen in the early 1900s, approximately 10 to 12 million trees were planted. Survival rates, however, were minimal and the need for forestry research was immanent.

Forestry-related efforts in the state were instrumental in shaping the future of North Dakota. The land-grant college in Fargo began research and experiments in forestry and agriculture. The School of Forestry opened in Bottineau. A petition was endorsed by North Dakota Governor Andrew Burke to create a park of the Turtle Mountain area. The first environmental education program, the Sylvaton System, was initiated to educate school children about forestry. A North Dakota Extension Forester assumed leadership of the Farm Forestry mission to inform North Dakota farmers about the value of trees and to demonstrate proper planting techniques.

Forestry initiatives by the federal government also influenced state forestry. At the urging of the nation's chief forester, a federal proclamation called for the creation of a Dakota National Forest in southwestern North Dakota. The plans would manage the region's native ponderosa pine and implement an extensive tree-planting program. The US Forest Service developed a nursery at the Logging Camp Ranger Station, but the entire project was abolished because of poor seedling survival. Experiment Stations began in Mandan and Fargo, with branch offices scattered across the state to find suitable tree species for the Great Plains.

When the unprecedented drought of the 1930s struck, none of the farming methods developed over the years could prevent the vicious winds from creating a "Dust Bowl" from North Dakota to Texas. A tremendous interest in tree planting was



Following the unprecedented drought of the 1930s, interest in tree planting was ignited for a new reason...to prevent soil

again ignited, but for a new reason...to prevent soil erosion. Following the drought, a major effort was made by a variety of state and federal organizations to plant trees and change farming practices to conserve our soil resources.



After a return to more normal weather conditions and improved farming practices, interest in tree planting dwindled until a focal project was sought for celebrating the state's centennial in 1989. North Dakotans selected tree planting as the focal project for the celebration of the state's centennial, and the North Dakota Forest Service helped lead the effort. Known as the Centennial Tree Program, the project encouraged the planting of 100 million trees (one-million trees for each year of statehood) over a ten-year period. The centennial project doubled tree-planting efforts across the state and helped create a *living legacy* that would serve as a *lasting reminder* for future generations to enjoy!

RE-LEAFING

Three federal organizations that evolved within the United States Department of Agriculture eventually became the umbrella agencies that complement today's state forestry programs.

The Civilian Conservation Corps (CCC) assigned crews to control erosion and establish soil conservation demonstration sites. The Corps' work led to the creation of the Soil Conservation Service in the Department of Agriculture, and North Dakotans immediately organized local soil conservation districts. Today, soil conservation programs in the Farm Bill are administered by the **Natural Resources Conservation Services (NRCS)**, who continue to work hand-in-hand with the **North Dakota Soil Conservation Districts** and partner agencies in the state.

The Agricultural Adjustment Act, known as "triple A," led to the creation of the Agricultural Stabilization and Conservation Service (ASCS) to preserve and improve the wealth and promise of America's farmlands. Today, it's called the **Farm Service Agency (FSA)** and it administers farm programs through a network of state and county offices. The 1985 Farm Bill authorized the retirement of 40-45 million acres of highly erodible cropland in the Conservation Reserve Program (CRP). A later component of CRP included the planting of trees.

The Bureau of Forestry, which became the **USDA Forest Service**, initiated and implemented a variety of forestry related projects throughout the Great Plains. Congress was urged to appropriate funds to establish an experiment station to study the planting of tree shelterbelts for erosion control. Working closely with the land grant institutions, research was done on suitable seed sources, planting design and establishment methods to sustain trees on the prairies.

The Denbigh Experimental Forest began as a cooperative venture between the Lake States Forest Experiment Station and the North Dakota School of Forestry in 1931. More than forty tree species from New Mexico to Montana, the Lake States, Europe and Asia were planted at the McHenry County site to test their hardiness and usefulness for shelterbelts. These plantings now serve as an important seed source for Towner State Nursery.

The worsening economic and drought conditions in North Dakota also caused the National Forest Reservation Commission to approve the purchase and planting of the



More than forty tree species from Asia, Europe and the United States were planted at the Denbigh Experimental Forest and

Souris National Forest in 1935. The plan was to purchase eroded lands in McHenry and portions of Pierce and Bottineau Counties and plant one third of the area to trees. The USDA Forest Service established a nursery at Towner to grow the seedlings for this forest. Unfortunately, Congress never appropriated funds for the land acquisition and the forest project was eventually dropped. The nursery remained in operation until 1942, when it was closed down during World War II.

The Northern Great Plains Experiment Station was established at Mandan to conduct research on crop rotations, forestry, horticulture and fruit trees. The scope of its tree planting and demonstration work pioneered by Dr. Ernest George resulted in the distribution of 1,500,000 trees and shrubs, all planted and cared for by cooperating farmers. It has since discontinued its forestry research mission and has a new focus on integrated crop and livestock management systems.

In 1934, President Franklin D. Roosevelt, vowed to help restore the windblown farmland. He provided \$60 million to plant 700 million trees across six states in ten years. This effort was called the Shelterbelt Project (former Prairie States Forestry Project). It was determined that shelterbelts alone could not eliminate the dust storms. Efforts must also include grass reseeding, controlled grazing, terracing, strip cropping and agricultural diversification. The project could not change the climate of the Great Plains, but it did help control and reduce wind erosion.

Today, the USDA Forest Service is a major partner and plays a vital role in supporting state and private forestry programs delivered by the North Dakota Forest Service. These programs provide technical and financial assistance to landowners and resource managers to help sustain the nation's forests and protect communities.



Today, North Dakota has an extensive network of windbreaks to control and reduce wind erosion of agricultural soils.

BRANCHING OUT

Prairie foresters strive to continue the historic traditions established by their early predecessors. While many years have passed, the mission of the North Dakota Forest Service is still guided by the early foundations in forestry to ***“care for, protect and improve forest resources to enhance the quality of life for future generations.”***

A wide variety of customers depend on the North Dakota Forest Service for technical, financial and educational assistance relating to the management of private forest lands, state forest lands, urban and community forests, tree planting and wildland fire protection. The agency also owns and manages approximately 13,278 acres of state forestlands, and operates a nursery at Towner specializing in the production of 1.2-million conifer (evergreen) tree stock in over twenty species.

The State Forester administers six forestry programs serving communities, rural landowners and soil conservation districts, rural fire districts, schools, and citizens of North Dakota. All the programs utilize a voluntary, educational and incentive-based approach to address natural resource needs and customer demands.

Community Forestry – A century ago, settlers planted tree seeds they brought with them or transplanted young seedlings from the riverbanks into their yards. Today, most of North Dakota’s residents live in 372 cities and towns. For them, natural resource management means conservation activities in city parks, tree-lined streets or other green spaces within the community.

The North Dakota Forest Service administers community forestry financial assistance programs that provide funds for tree planting, and other forestry development projects each year. The agency also provides leadership and technical assistance for tree planting plans, management plans, shade tree ordinances, pest surveys and tree workshops.



The photos show how the community forest in Edgeley grew as the community grew.



Fire Management – A century ago, prairie fires swept across the plains. Today, the North Dakota Forest Service administers a Fire Management Program to ensure the protection of lives, property and natural resources. It does this by training, organizing and equipping North Dakota’s 376 rural volunteer and 12 career fire departments.

A Cooperative Fire Protection Assistance Program provides departments assistance in organizing, training, planning, purchasing or repairing equipment. A companion program, the Federal Excess Personal Property Program, loans surplus federal equipment to departments for enhancing firefighting capabilities. Community protection is improved through grants for wildfire hazard mitigation and “FireWise” landscape projects. Fire prevention is stressed through the distribution of Smokey Bear materials.



The agency used to provide volunteer Fire Wardens small tool sheds with fire equipment, but today they help provide trucks and other resources.



Forest Resource Management – A century ago, the prairies lacked trees and homesteaders were demanding building materials, posts for fencing, fuel, and protection from the harsh winds for themselves and later for their soil. The Forest Resource Management Program focuses on improving the stewardship of our forest resources by educating and assisting non-industrial private landowners on how to better manage, protect and utilize their native and planted forest resources.

This is accomplished through the development of a forest stewardship plan and direct financial assistance for forest improvement practices. Rural forestry services are delivered through an agreement with the local soil conservation districts. The forestry staff also works directly with North Dakota State University and the NDSU

Extension Service to deliver services on a statewide basis for forest health, insect and disease diagnosis, and management recommendations.



in the Turtle Mountains was once done for fuel, today it regenerates a healthy aspen forest and reduces the risk of fire.



Information and Education – A century ago, the citizens of North Dakota believed in training school children on the subject of forestry to teach them to become devoted life students of nature. Today, the Information and Education Program offers youth and adults the knowledge and skills they need to make wise decisions about the conservation, use, and management of North Dakota’s forest resources.

Understanding our forests and related natural resources is too critical to our future to avoid acting now to increase awareness and understanding of the environment. The ND Forest Service, in conjunction with the NDSU Extension Forester, sponsors “Project Learning Tree” workshops for teachers and youth leaders working with students in grades K-12. The program also handles the daily requests for forestry information and the publication of educational materials, as well as a newsletter entitled “The Prairie Forester.”



teachers to help make informed decisions regarding our forestry resources has always been part of the Forest Service’s mission.



Sustainable Forestry – A century ago, the foundations of forestry were set in place to help create diverse and healthy forests resources. Today, private, community and state forests are extremely valuable resources that provide innumerable benefits.

The agency has five state forests comprising approximately 13,278 acres. These woodlands play an important role in the economic well being of several rural communities by attracting hunters, hikers, campers, skiers, snowmobilers, tourists and other outdoor enthusiasts. An important focus of Sustainable Forestry is forest health. Sustainable forestry involves the monitoring, retention, conservation, utilization and health of forestland in the face of rapid natural and social changes, public desires and new technologies. It means fulfilling today’s needs while planning for tomorrow.



following the Dust Bowl era provide innumerable benefits today, but they also face the pressures of rapid change, public desires and changing technologies.



Tree Production – A century ago, settlers planted seeds they brought with them or transplanted seedlings from the riverbanks onto their land. Through trial and error, they were looking for suitable trees, shrubs and fruits that would grow on North Dakota farms. Today, the North Dakota Forest Service owns and operates the 160-acre Towner State Nursery, which specializes in the production of conifer (evergreen) stock in over twenty different species and stock types. The nursery is a self-supporting operation that produces approximately 1.2 million tree seedlings annually for distribution to landowners. The trees are used for farmstead, living snow fence, field windbreak, wildlife, forestry and other conservation plantings. Since 1927, over 75 million tree seedlings have been produced and sold.

The nursery also provides tree improvement services, such as testing, evaluation, selection and development of improved nursery stock for forestry and conservation plantings. Tree planting training and information materials are also provided to help customers’ plant and properly care for trees.



grows approximately



THE FRUITS

After a century, the large numbers of planted trees have transformed North Dakota’s communities and agricultural landscape. According to a recent 1999 forest survey issued by the USDA Forest Service North Central Research Station, North Dakota’s forestland acreage increased 18 percent between 1980 and 1994. Now at more than 673,000 acres, forests occupy only four percent less land than the 700,000 acres believed to have been in the state when the first European settlers arrived.

Much of the native forestland is privately owned and the average stand area is 47 acres. Farmers are the largest group of landholders with 66 percent of the forest acreage; and other non-farm private landowners own 3 percent. State, federal and Indian reservation ownerships comprise the remaining acreage.

Planted and native forests provide important benefits in countless ways. Everyday forests provide wildlife habitat, clean air and water, wind protection and erosion control, recreational opportunities and essential wood products. In addition, they keep us cool in summer, screen unpleasant sights, increase property values, work as living snow fences, instill community pride, and leave a valuable gift for future generations to enjoy. Our forests make direct and visible contributions to the health, safety and economy of the citizens of North Dakota!

MESSAGE FROM THE NORTH DAKOTA FOREST SERVICE STAFF

We hope you enjoyed reflecting on the past “*100 Years of Forestry*” in North Dakota! We invite you to join us in exploring new strategies in the ways our forest resources will be managed in the next century. The North Dakota Forest Service is committed to excellence in public service. Cooperative forestry programs utilize a voluntary, educational and incentive-based approach to address natural resource needs and customer demands. The North Dakota Forest Service will work with state and local governments, tribes, and federal agencies to enhance our community forests, ensure wildfire protection, manage and utilize our forest resources, maintain forest health, foster good stewardship, and provide quality tree seedlings. North Dakota’s success in conserving our forestry resources for our citizens and our country will require a combined effort by foresters, landowners, community leaders and elected officials. Together, we must remain *rooted in the past – growing towards the future!*



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