

# **DIVISION OF RESOURCE CONSERVATION AND FORESTRY**



## **FISCAL YEAR 2006 ANNUAL REPORT**

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# Introduction

**The mission of the Division of Resource Conservation and Forestry is to conserve, protect, improve, and develop the natural resources of South Dakota for its citizens.**

The Division continues to implement its mission through the active implementation of the strategic plan. The plan is reviewed on an annual basis to make sure that it is relevant.

This year we continue to receive Forest Health Program grants funds to address the growing beetle epidemic in the Black Hills. This epidemic shows no sign of collapse, and, even though the devastation has occurred predominantly on federal lands, it threatens to move onto private forestlands in the near future. We continue to attack the problem on state and private lands in an aggressive manner. Our efforts are hindered by large areas of infestation on adjacent federal lands.

The Forest Land Enhancement Program was created and funded by Congress in the 2002 Farm Bill. The division received some funding under this program which was used to provide cost-share to private forest landowners.

The division, as part of our strategic plan, has implemented an urban tree inventory system that will provide us with needed information on the makeup and health of our urban forest resources. A preliminary report summarizing the inventory results that have been collected over the past few years will be published in the near future. This report will be updated as more communities are added to the inventory.

The division administers a wide range of programs in order to accomplish our goals and objectives. The following pages briefly describe our accomplishments in each of the division's many programs during the state fiscal year 2006. Each program is designed to provide quality technical assistance and, in some cases, financial assistance to our citizens and cooperators.

A summary of the grants awarded to our cooperators during the year can be found in the back of this report.



# South Dakota's Forest Resources

This section provides a summary of South Dakota's forest resources as described in the publication *"South Dakota's Forest Resources Outside the Black Hills National Forest, 1996"* unless otherwise noted. South Dakota has 1.6 million acres of traditional forest land, representing only 3.2 percent of its land area of 49.3 million acres. To portray the distribution of forest land, the state is divided into five river basin areas (Figure 1). The state's forests are dominated by western ponderosa pine timberland that occupies 1.1 million acres, or 69 percent of the forested area. The pine forest occurs in the Black Hills, the Short Pines and the Slim Buttes areas of the Cheyenne and Belle Fourche-Grand Moreau River basins, and on or near the Pine Ridge and Rosebud Indian Reservations of the White-Niobrara River basin.

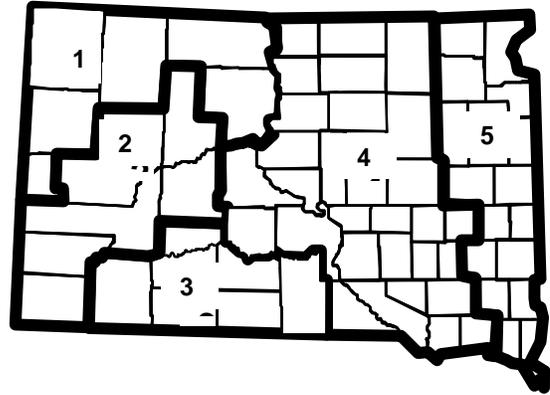
The Black Hills region, located in the far western part of South Dakota and in northeastern Wyoming, is recognized as a national geologic landmark. This isolated, mountainous island of granite, limestone and metamorphic rock is roughly 100 miles long and 60 miles wide and rises from the surrounding plains to an elevation of 7,242 feet at the top of Harney Peak.

The remaining forest lands are found in the plains portion of the state and are primarily associated with lakes and waterways. The majority of these forested areas are located along the Missouri River and its major tributaries such as the Cheyenne, Grand, Moreau, White and Bad Rivers in the west, and the Vermillion, James and Big Sioux Rivers in the east. Other areas of forest land are found along the Minnesota River and in the Coteau area of northeastern South Dakota. Forest lands in the eastern river basins comprise only about one percent of the total land area, and about 9 percent of the total forest area in the state. They consist primarily of tree species associated with eastern hardwoods such as ash, basswood (linden), bur oak, hackberry, honeylocust, elm, cottonwood and willow.

South Dakota's native woodlands and forests are predominately publicly owned. Only 35 percent (566,000 acres) are privately owned (US Forest Service's Forest Inventory Mapmaker). Approximately 92 percent of the publicly owned forest land is administered by the Black Hills National Forest. The remaining 8 percent is owned by the Custer National Forest, the National Park Service, the Bureau of Land Management (BLM) and the State of South Dakota. Most of the state-owned forest is within Custer State Park. Most forest land located east of Rapid City in the plains portion of the state is privately owned.

South Dakota has an additional 1.3 million acres of non-forest land with trees. Non-forest land with trees includes narrow wooded strips and windbreaks, wooded pasture, urban forests, and other land with trees. Seventy-three percent of the non-forest land with trees is pasture. In past years eastern red cedar and Rocky Mountain juniper have encroached into pastures. The result has been a loss of forage production and livestock handling problems. On the positive side, the trees offer shelter against wind and control soil erosion.

There are an estimated 205,000 acres of narrow wooded strips and windbreaks in South Dakota that make up the state's agroforestry resource. Located almost entirely on private land, these areas include native woody vegetation found along streams and rivers, and narrow tree and shrub plantings adjacent to homes, farm buildings, roads, crop lands, livestock feeding areas, and other developments. There



**Figure 1: Forest Basin Areas.**  
1 - Belle Fourche-Grand Moreau  
2 - Cheyenne  
3 - White-Niobrara  
4 - Bad-Missouri-Coteau-James  
5 - Minnesota-Big Sioux-Coteau

are about 95,000 acres of narrow wooded strips and 105,000 acres of windbreaks. These trees conserve natural resources, increase crop and livestock production, act as living carbon sinks and atmosphere scrubbers, protect water quality by holding soil and filtering nutrients, protect public rights-of-way from drifting snow, provide valuable wildlife habitat and otherwise improve human environments.

Conservation tree planting began in earnest with the Prairie States Forestry Project of 1935-1942. Since 1943 an average of 5,351 acres of windbreaks and shelterbelts has been planted each year in South Dakota (NRCS data). This equates to over three million tree and shrub seedlings annually. Each year, on the average, over 500 acres of older, deteriorating windbreaks are being restored to workable condition using silvicultural (forestry) practices, including replanting and supplemental planting.

Urban and community forests are gaining more attention as important forest resources in need of proper care and management. The urban forest consists of the trees and other woody vegetation that grow within the limits of our cities and towns. According to the *2006 South Dakota Municipal Officials Product and Services Guide*, there are 243 incorporated communities ranging in population from 10 in Lowery to 123,975 in Sioux Falls. In addition, there are many unincorporated communities and housing developments, especially on tribal lands.

While the urban and development acreage represents an extremely small percent of the total land area in the state, approximately 540,667 people, or 71 percent of the state's population, live within our communities and housing developments, whether incorporated or not. Our urban and community trees have their own unique problems and require a considerable amount of professional care and management if they are to flourish.



South Dakota's forest lands, woodlands, windbreaks, shelterbelts and urban forests provide a wide range of multiple benefits to our citizens. The benefits include wildlife habitat, recreational opportunities, quality water, energy savings, an aesthetically pleasing environment, increased crop and livestock production and forest products, in addition to the jobs that forest industry creates. As our state's population increases and shifts from rural to urban, our relationship with forest resources becomes increasingly complex. More demands are being placed on private woodlands and agroforestry areas to provide a multitude of economic and environmental benefits. Biodiversity and ecosystem management are becoming important considerations when managing our forest resources. Along with increased demand comes the need to practice good forest stewardship to ensure the sustainability of our forests for future generations.



## **Service Forestry Programs**

### **Forest Stewardship Program (FSP)**

The Forest Stewardship Program (FSP) is the division's primary source of funding for forest management technical assistance. Technical assistance is based on landowner objectives, health and composition of the existing forest, capability of the site, and stewardship principles. Detailed forest stewardship plans are prepared based on forest land examinations and landowner objectives. Planting designs are prepared for tree and shrub plantings for windbreaks, living snow fences, wildlife habitat, Christmas trees, fuelwood, reforestation, and other purposes. Assistance is also offered in preparing pre-commercial and commercial timber stand improvement recommendations, identifying and offering solutions to forest insect and disease problems, and other forest resource management related assistance as appropriate.

The FSP is financed and administered nationally by the USDA Forest Service. The program takes a multi-disciplinary approach to forest land management involving many agencies with the Resource Conservation and Forestry Division as the lead agency. The Forest Stewardship Coordinating Committee (FSCC) advises the State Forester on how FSP should be implemented in South Dakota.

The FSCC is made up of representatives from the following organizations:

USDA Forest Service, Black Hills National Forest  
USDA Natural Resources Conservation Service  
USDA Farm Service Agency  
SD Dept. Game, Fish & Parks  
SD Dept. of Environment & Natural Resources  
SD Cooperative Extension Service  
SD Association of Conservation Districts

SD State Conservation Commission  
Black Hills Forest Resource Association  
SD Tree Farm Committee  
Keep South Dakota Green Association  
Consulting Foresters  
Industry Foresters  
Forest Stewards

The Forest Land Enhancement Program (FLEP) was created and funded by Congress in the 2002 Farm Bill. It was designed to adopt the best characteristics of the Stewardship Incentive Program (SIP) and Forestry Incentive Program (FIP), and replace them. South Dakota received \$68,425 to implement FLEP in FY 2006 – the third year of funding for the program.

The division continued to operate under a forest health grant from the USDA Forest Service to combat growing bark beetle populations in the Black Hills. The division provided up to 50% cost-share to landowners for thinning to improve forest health.

## FY 2006 Accomplishments

The South Dakota Forest Stewardship Plan was revised in FY 2002 to reflect current forest resource conditions and provide direction to the division over the next five years. Emphasis areas include forest health; continuing education in forest ecology, silviculture and BMPs for loggers, landowners, and resource professionals; an expanded role in the Forest Inventory Analysis; development of a programmatic agreement with the State Historical Preservation Office to facilitate protection of cultural resources; and coordinated implementation of the Forest Land Enhancement Program.

The Resource Conservation and Forestry Division provided 419 forest management and prairie forestry technical assists to private landowners, organizations and government agencies across the state in FY 2006. Forest stewardship plans were written and approved for 10 private landowners covering 1,751 acres and 13 forest management plans covering 230 acres. Consultants completed one private landowner plan covering 30 acres.

## Windbreak and Shelterbelt Plantations

Assistance and planning by division service foresters resulted in the planting of 64,406 new trees and shrubs on 176.4 acres for conservation purposes. Restoration was completed in 11 existing shelterbelts and windbreaks covering 31.4 acres. Division service foresters assisted with the establishment of 26 new shelterbelts, windbreaks, and living snow fences covering 68 acres, resulting in the planting of 26,570 trees and shrubs. Wildlife plantings received the most attention from service foresters who designed 31 plantings for 77 acres involving 24,624 trees and shrubs. Most landowners utilized one or more of the cost-share incentive programs that are available. Only a few relied totally upon their own resources to get their trees planted.

Four brochures were written and distributed to educate landowners about the value of windbreaks for different purposes. "Trees and Energy" was developed to describe how trees can save money and reduce energy requirements. "Windbreak Establishment" was developed to describe the importance of proper care of new windbreaks. "Windbreaks and Snow Management" was developed to show how windbreaks could be used to manage snow and reduce snow removal costs. "Field Windbreaks" explains how windbreaks are used to control erosion and increase crop yields.



*Clean cultivated tree planting*

## FY 2006 Tree Planting Accomplishments

	Projects	Acres Planted	Trees Planted
Conservation Reserve Program (CRP) Only			
New Establishment	3	10	4826
CRP and GF&P			
New Establishment	3	5	2980
<b>Total CRP</b>	<b>6</b>	<b>15</b>	<b>7806</b>
Department of Transportation Living Snow fence			
New Establishment	9	21	8468
Environmental Quality Incentive Program (EQIP) and GF&P			
New	1	2	818
Wildlife Habitat Improvement Program (WHIP) only			
New Establishment	1	4	845
WHIP and GF&P			
New Establishment	2	5	2388
<b>Total WHIP</b>	<b>3</b>	<b>9</b>	<b>3233</b>
Forest Land Enhancement Program (FLEP) only			
New Establishment	6	26	9276
Renovation	6	9	2539
FLEP and GF&P			
New Establishment	1	23	1267
Renovation	1	0.4	136
<b>Total FLEP</b>	<b>14</b>	<b>58.4</b>	<b>13218</b>
Other cost share program (Other) only			
New Establishment	3	5	2233
Game Fish & Parks Only			
New Establishment	24	42	17171
Renovation	3	21	10194
<b>Total GF&amp;P Only</b>	<b>27</b>	<b>63</b>	<b>27365</b>
<b>Total Game Fish &amp; Parks and Other Programs</b>	<b>35</b>	<b>98.4</b>	<b>34954</b>
No Cost-Share Program			
New Establishment	4	2	922
Renovation	1	1	343
<b>Total No Cost-Share</b>	<b>5</b>	<b>3</b>	<b>1265</b>
<b>Total Establishment New</b>	<b>57</b>	<b>145</b>	<b>51194</b>
<b>Total Renovation</b>	<b>11</b>	<b>31.4</b>	<b>13212</b>
<b>Grand Total</b>	<b>68</b>	<b>176.4</b>	<b>64406</b>



## Urban & Community Forestry (U&CF)

The Division offers urban and community forestry (U&CF) technical assistance to individuals, service organizations, non-profit groups, and communities. The division provides technical assistance for establishing tree boards, developing tree ordinances, organizing street tree inventories, tree planting and maintenance, identifying and controlling insects and disease problems, grant preparation, and administration. The division also provides training in all aspects of urban forestry and arboriculture (the care and maintenance of trees). Technical assistance is provided by one full time U&CF Coordinator, eight service foresters located throughout the state and Dr. John Ball, Professor of Arboriculture and Forestry at South Dakota State University. Dr. Ball also acts as "Volunteer Coordinator" for U&CF programs across the state of South Dakota.

The Division directs its effort on assisting communities with the development of local community forestry programs. Local tree boards, which are a very important part of any community forestry program, provide the foundation for most of the community forestry programs in South Dakota. These volunteer tree boards perform a wide variety of functions, including development of local tree ordinances, preparation of annual work plans, planning and implementing tree plantings, pruning, and removal projects. They also provide information and education to local citizens, secure and administrate grant funds, and conduct Arbor Day activities. At the present time there are 58 known tree boards across the state.

During FY 2006 service foresters provided 81 technical assists to 45 different communities in South Dakota. Another 262 tree planting and care assists were provided to individuals, organizations, and agencies around the state. At the end of fiscal year 2006, 69.44% percent of South Dakota's population is living in communities that have managing programs to plant, protect and maintain their urban and community trees and forests. An additional 6.93% percent of the population is living in communities which are developing programs and/or activities to plant, protect and maintain their urban and community trees and forests.

<b>FY 2006 Community Information</b>	<b>Numbers of South Dakota Communities</b>
With Management Plans	36
With Professional Forestry Staff	56
With Tree Ordinances	77
With Tree Advisory Organizations	91

Interest in establishing multi-purpose community windbreaks, or greenbelts, has been very strong. The division is working with communities, the State Department of Transportation, South Dakota State University, local county highway departments, local conservation districts and Planning & Development Districts to see that as many of these tree plantings as possible and feasible are installed.

The division also takes measurements of large trees and forwards their nominations to the South Dakota Register of Big Trees in cooperation with the National Big Tree Program administered by the American Forests organization of Washington, DC. A total of 282 trees of 61 different species are recorded on the South Dakota Big Tree Register.

South Dakota continues to maintain two trees recognized as national champions: a Russian-olive located near Rapid City and a Black Hills spruce (our state tree) near Lead. However, the largest tree in South Dakota is a large cottonwood located near Yankton in Yankton County. The tree trunk is 26'5" in circumference with a height of 145 feet, a crown spread of 102 feet, and a point score of 487.5.

The GreenSpace listserv, also managed by the U&CF program sends out newsletters by email at least once a month on current events and upcoming events in the field of urban forestry. Currently, there are 145 subscribers to this listserv, many of those being communities.

Dr. John Ball, South Dakota State University, Brookings, made 31 presentations in South Dakota on various aspects of tree management. Topics at other conferences and events included tree and shrub selection, identification and care, animal damage, and tree risk management. These presentations drew over 1,300 people and over 3,000 seat hours. In addition, 7 Public Television presentations drew TV audiences interested in tree care, sweating nursery stock, Dutch elm disease management, transplanting with a tree spade and tree pest management.

Dr. Ball's workshops and presentations are broken down as follows:

<b>Conference/Event</b>	<b>Location</b>	<b>Topic</b>	<b>No. of Participants</b>
Today's Ag TV Presentations	Brookings	5 Segments	Public TV
Garden Line TV Presentations	Brookings	2 Segments	Public TV
Electrical Hazard Awareness Training	3 locations	Electrical Safety	187
Beadle County Storm Damage to Trees Workshop	Huron	How to Improve the Health of Trees Stressed by Ice	36
SD Pesticide Recertification	3 locations	Tree Insect and Mites	290
SD Nursery and Landscape Conference	Sioux Falls	Tree Pest Update	56
Davison County Storm Damage to Trees Seminar	Mitchell	Proper Pruning of Storm Damaged Trees	80
Master Gardener Training	Pierre/Rapid City/Watertown	Tree Care & Selection	56
South Dakota State Fair	Huron	Trees for South Dakota	78
Redfield Tree Clinic	Redfield	Tree Insects and Mites	12
Logger Education	Rapid City	Mountain Pine Beetle Update	24
Logger Education	Rapid City	Logging Safety	64
Yankton Home and Garden Show	Yankton	Emerald Ash Borer	37
Pipestone Home and Garden Show	Pipestone	What to Plant Before the Ash are Gone	42
Sioux Falls Garden Expo	Sioux Falls	Emerald Ash Borer and other Stressors	112
Faulk County. Extension. Workshop	Evergreen Colony	Fruit Tree Pests	63
Shelterbelt Management	Murdo	Proper Establishment of Trees	26
Cooperative Extension Annual Conference	Pierre	Common Problems of Spruce	40
Milbank Tree Clinic Extension Workshop	Milbank	Tree Care	33
Pierre Master Garden Spring Workshop	Pierre	Common Tree Pests	28
USDA Forest Service Diagnostic Workshop	Rapid City	Defoliating Insects and Leaf Diseases	45
USDA Forest Service Risk Assessment Workshop	Rapid City	Managing Structural Defects	43
Ranchers' Workshop	Pierre	Common Tree Pests	22
Mobridge Gardening Seminar Series	Mobridge	Drought Tolerant Trees	18

## U&CF Challenge/Sub-Grant Program

Through the Urban & Community Forestry Program, the division provides technical and financial assistance to our communities. A portion of the division's annual allocation of Urban and Community Forestry Assistance funds is awarded to local governments and community volunteer service organizations in the form of focused cost-share grants.

The grants are used to fund tree planting projects which provide benefits to the general public, solve a specific urban and community forestry problem, demonstrate the importance of trees in our communities, and challenge other organizations to plan and implement similar projects. The community or service organization must match the grant funds on a 50-50 basis. This has traditionally been accomplished through the volunteer labor and donated supplies that are needed to properly plant, mulch, and otherwise maintain the trees until they are established. In 2002, the South Dakota Urban and Community Forestry Council made the decision to target sub-grant funding toward specific projects that would advance the missions of the South Dakota and federal urban and community forestry programs. In FY 2006, twenty-six communities received grant funds for various urban forestry projects.



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## Forest/Timber Management

Resource Conservation and Forestry Division service foresters wrote or approved 23 forest management plans in FY 2006 covering 1,981 acres. Forest Stewardship Plans made up 10 of those plans covering 1,751 acres. The other 13 plans were less detailed Forest Management Plans.

Service foresters provided 201 forest management assists to various landowners, businesses and other agencies. Written prescriptions for 13 timber stand improvement projects were prepared and when completed will result in the improvement of 230 acres of pine and hardwoods. Fieldwork was completed in preparation for 18 non-commercial timber stand improvement projects covering 408 acres. Six projects, covering 96 acres, were approved for cost-share assistance through the Forest Land Enhancement Program (FLEP), one project covering 20.2 acres applied for cost-share through the bark beetle program, and five projects covering 93 acres applied for cost-share through the Wildlife Habitat Improvement Program (WHIP).

Pre-commercial thinning was completed on 11 projects involving 322 acres of forestland: four projects covering 87 acres received cost-share under FLEP. Thinning under the bark beetle cost-share program was completed on four projects covering 179 acres.



*Overstocked Stand prior to thinning*



*Thinned stand*

## **Forest Health Management**

Forest health management in South Dakota encompasses a wide array of growing conditions, management practices, and host species. Insect and disease pressures and priorities differ among commercial forest, agroforestry (windbreaks and shelterbelts) and the urban and community forests. Service foresters, along with the Forest Health Specialists, provided more than 400 assists to private landowners, and 800 assists to cooperative extension educators and conservation district personnel. The level of assistance was very high for some problems, particularly bark beetle infestations in the Black Hills and twolined chestnut borer in the south central part of the state, where extensive sampling was required to delineate infested pockets of trees. In other cases, services consisted of a disease or insect problem diagnosis and management recommendation for landowners.

### **Gypsy Moth**

The FY 2006 gypsy moth monitoring program was, as in past years, conducted as a cooperative effort with the USDA Animal and Plant Health Inspection Service (APHIS) and the South Dakota Cooperative Extension Service. The gypsy moth is a defoliating insect that was introduced into New England from Europe in the 1860s. It has spread since then into deciduous forests throughout eastern United States and is now established in Wisconsin and Minnesota. The feeding by the insect can become a contributing factor in tree decline. The large masses of moth caterpillar also become a nuisance to campers and result in reduced park and campground visitation. There were 763 traps retrieved and these yielded 8 adult gypsy moths captured in 3 traps. Four of the gypsy moths were collected from the Black Hills and four were captured in two traps in eastern South Dakota.

### **Elm Bark Beetle**

The gypsy moth is not the only invasive insect that the Division has assisted in monitoring. The banded elm bark beetle, an Asian boring insect that feeds in elms was first identified in the United States in April 2004. The insect has been collected from traps in Rapid City, from elm logs in Brookings and in declining Siberian elms in Shadehill and Interior. The insect has now been associated with the decline of native American elms growing in riparian areas in south-central South Dakota. This insect may prove to be a more effective vector of Dutch elm disease (DED) and may be responsible for the dramatic increase in Dutch elm disease infections that have appeared throughout the state. Many communities have had a 4-fold increase in the number of DED-infected trees in recent years.

### **Emerald Ash Borer (EAB)**

The Division is also alerting nurseries, conservation districts, campground owners, communities and landowners about the potential threat of another recently introduced insect, the emerald ash borer. This Asian insect has infested thousands of acres of forests, resulting in the loss of more than 16 million ash trees in southeastern Michigan and northern Ohio. During the last year pockets of infested trees have been discovered in Illinois and Indiana. The emerald ash borer appears to be a primary insect on all ash species native to North America, including green ash, with black ash proving to be particularly vulnerable to attack. Surveys of street trees in communities across the state indicate that ash trees compose more than 36 percent of all street trees. Since many of South Dakota's windbreaks are planted in green ash and this same species is the most common ornamental tree in many communities, the impact of an emerald ash borer outbreak in South Dakota would be very high, both in terms of aesthetics and the drain on city budgets.

The Division is educating the public on identifying this pest as well as cooperating with APHIS in monitoring incoming stock to prevent the accidental introduction of this pest to our state. The Division, through funds provided by APHIS, is developing collections of beetles that look similar to the emerald ash borer so that professional grounds managers, such as city park staff and campground owners and superintendents, can monitor firewood brought in by campers. While movement of infested nursery stock from Michigan has been responsible for some infestations in eastern United States, the most likely threat for South Dakota is from the accidental introduction of this pest through

infested firewood. The movement of infested firewood has been responsible for the spread of the insect throughout Michigan from its original site in Detroit, its spread into the nearby states of Illinois, Indiana and Ohio. The adult emerald ash borer emerges from infested wood during the summer months so its emergence is timed perfectly with high campground use from visitors from other states including Michigan. The Division is developing an effort to educate campground owners and visitors of the possibility of moving this insect and the need to dispose of any firewood brought in from outside the state.

While the alert could be limited to ash wood from certain counties in Michigan, Indiana and Ohio, there are other insects such as the banded elm bark beetle that can be transported into our state from other regions of the country and on other species. A general alert to dispose of any firewood brought into the state is a valuable means of reducing the possibility of a number of exotic insects from entering our state. We began a trap-tree monitoring program for this insect in selected locations in eastern South Dakota as well as sticky traps in campgrounds in the Black Hills and East River. We did not catch any emerald ash borers in this first year of monitoring but it did provide us with valuable data for developing an effective and efficient monitoring procedure.

### **Mountain Pine Beetle (MPB)**

The mountain pine beetle program, in response to the epidemic in the Black Hills region of South Dakota, continues to yield positive results. The epidemic, now in its 9<sup>th</sup> year shows no signs of decreasing. The pine engraver beetle has also been a major concern, though its population appears to be declining from its peak in 2005. The Division is conducting a mass-trapping program of a number of mills, including the two largest, Pope & Talbot and Rushmore Products, to reduce the number of pine engraver beetles emerging from infested logs and infesting trees outside of the mills. The trapping program was very successful with more than 200,000 beetles captured in traps placed around each mill during past years.

An increasing population of mountain pine beetles was noted in the northwestern corner of Custer State Park. The infestations appeared to be concentrated in the Hood Tunnel and Cathedral Spires areas, adjacent to a major outbreak already occurring on the Black Elk Wilderness Area. The Division has been utilizing multiple strategies and tactics to reduce the beetle population and tree mortality. Spot baiting, where chemical attractants are attached to selected trees to purposely draw beetles in before felling and destroying the tree, has been used this year with excellent results. This tactic, combined with thinning to reduce stand susceptibility and the removal of infested trees, has stopped the expansion of the outbreak within the Park. Unfortunately, the expanding outbreak in the adjacent Wilderness Area means beetles are continuing to move into the Park. Plans are in place to reduce this migration by creating stand conditions in the park adjacent to the Wilderness Area that are not conducive to beetle flight. In addition to managing the beetles in the ponderosa pine stands in the Park, baiting with an anti-aggregation chemical, designed to repel the beetles, is being used to protect the relic limber pine stands in the Spires area from attack by the mountain pine beetle.

### **Drought**

A major and continuing concern is the drought. Many areas of the state are on their third and fourth year of drought conditions, and this long-term drought is beginning to affect established trees. There has been an increase in tree mortality in oaks, primarily in the south-central region of the state but also occurring East River and the northern Black Hills. The mortality is due to drought stressed trees becoming infested by twolined chestnut borer, a native insect that has a population increase during droughts when trees are most vulnerable to attack.

## Forest Inventory Analysis (FIA) Program

The FIA program collects, analyzes, and reports information on the status and trends of America's forests. Information is collected on how much forest exists, who owns it and how it is changing, as well as how the trees and other forest vegetation are growing and how much has died or has been removed in recent years. This information can be used in evaluating wildlife habitat conditions, assessing the sustainability of ecosystem management practices and supporting planning and decision-making activities undertaken by public and private enterprises. The FIA program combines this information with related data on insects, diseases and other types of forest damaging agents and stresses. This is done to assess the health condition and potential future risks to forests. The program also projects what the forests may be like in 10 to 50 years under various scenarios. This information is essential for evaluating whether current forest management practices are sustainable in the long run and whether current policies will allow future generations to benefit from the many uses that America's forests provide.



There are now four primary FIA regions across the lower 48 states. South Dakota is now part of the 24 state Great Northern Region administered by the Northern Field Station, with offices in St. Paul, MN., and Newtown Square, PA.

In 2006 the State of South Dakota entered into 5 year agreement with the USDA Forest Service, Northern Research Station, for an annualized inventory of South Dakota's forest resources. For the first year of this agreement, the 2006 inventory, the state received \$61,383.00 from the Northern

Research Station to inventory 74 Phase 2 (P2) forest inventory plots, 25 Quality Assurance Quality Control (QAQC) plots and 12 ozone plots.

South Dakota chose to conduct their own inventory, and contracted the work to a private timber management consulting firm. The consultant completed inventorying the P2 and QAQC plots by mid October 2006. The ozone plot work was completed in-house by September 2006. The Northern Research Station was solely responsible for collecting data for the P3 (forest health) plots. There were a total of 4 Phase 3 (P3) plots for the 2006 inventory cycle.

For the coming 2007 inventory season the State plans to extend its current agreement for inventorying South Dakota's forest resources. This includes inventorying only 95 P2 plots, about 25 QAQC plots and the 12 ozone plots. The Northern Research Station will be responsible for inventorying the 7 P3 plots. Negotiations for this agreement with the Northern Research Station are in progress. Again the State plans on contracting this fieldwork out to a private consultant.

## Economic Action Program Biomass Utilization Project

The Economic Action Program (EAP) provides the opportunity to help businesses and communities realize the economic potential of under utilized and unutilized wood, wood waste, and non-traditional forest products.

In FY 2006, Division activities focused on using woody biomass for heat in a project similar to the Montana/Idaho/North Dakota Fuels for Schools program. The Division received a grant from the Western Governors' Association (WGA) to conduct preliminary studies to determine the feasibility of using woody biomass to heat buildings. Biomass Energy Resource Center (BERC) of Montpelier, VT was hired to conduct the studies. Following a public meeting in November 2005, 17 applications were received requesting participation in the feasibility study project. The Division was also able to re-direct a USDA Forest Service Economic Action Program grant to this project and, between the two funding sources, was able to complete 11 feasibility studies. WGA grant funds were used to complete studies for Hot Springs K-12 schools, Rapid City Stevens High School, Rapid City Catholic K-12 School System, Spearfish East Elementary, Lead/Deadwood High School, and Belle Fourche Middle School. The EAP grant was used to fund studies for the South Dakota State Veterans' Home, Evergreen Star Academy, Rapid City Central/Civic Center, Black Hills State University, and Belle Fourche High School.

The studies included a life cycle cost analysis that estimated cost savings and provided a net present value for conversion at each facility. Based on facility size and current fossil fuel type, price, and annual consumption the following information was generated.

### Summary of Findings

Facility	First Year Fuel Cost Savings (%)	First Year Cost Savings (\$)	30 Year NPV* of Savings
Belle Fourche Middle School	52%	\$34,209	\$192,395
Belle Fourche High School	50%	\$20,050	\$29,982
Spearfish East Elementary	48%	\$19,414	-\$28,526
Hot Springs K-12	40%	\$10,699	\$164,421
Lead/Deadwood High School	56%	\$78,143	\$1,062,976
Seton/More	52%	\$28,251	\$16,986
Rapid City Stevens	47%	\$47,974	\$187,316
			\$ 428,102 to
Black Hills State University	40%	\$94,893	\$ 2,905,188
Rapid City Central HS/Civic Center	41%	\$68,075	\$273,216
Star Academy	67%	\$208,055	\$4,722,717
State Veterans' Home	65%	\$187,267	\$4,037,660

*\* Net Present Value*

Based on these findings, the State has decided to pursue conversion of the State Veterans' Home and Star Academy. These facilities are scheduled to be converted to woody biomass heating systems by the 2008 heating season. Other facilities that continue to look at the woody biomass alternative via further study include Belle Fourche High School, Lead/Deadwood High School, Rapid City Central/Civic Center, and Black Hills State University.

## **Black Hills National Forest Phase II Amendment**

In October 2005, the Black Hills National Forest completed a major Amendment to its 1997 Revised Land and Resource Management Plan. The State of South Dakota participated in development of the amendment as a Cooperating Agency. The purpose of Cooperating Agency Status was to provide technical expertise in the development of Environmental Impact Statement for the amendment. The Department of Agriculture played the lead role with Secretary Larry Gabriel as the principle liaison in this endeavor. The Secretary delegated the coordination of the cooperating agency process to the Resource Conservation and Forestry Division.

Other state agencies that took an active role in the process included the Departments of Game, Fish, and Parks, Environment and Natural Resources, Labor, Tourism, and Transportation.

The State invited County Governments and Conservation Districts in the area of the Black Hills National Forest to join the process as cooperating partners. Cooperating Agency Status was accepted by County Commissioners in Lawrence, Meade, Pennington, Custer, and Fall River Counties and Lawrence, Pennington, Custer, Elk Creek, and Fall River Conservation Districts.

During FY 2006, cooperating agencies provided input into completion of the Final Draft Environmental Impact Statement.

# Conservation Programs

## Coordinated Soil and Water Conservation (CSWC) Grants

The South Dakota Coordinated Soil and Water Conservation Plan was adopted during the 1992 legislative session. One provision of the plan was the establishment of a grant fund to be used by conservation districts to address local natural resource needs.

During FY 2006, 27 grant applications were received. The 21 conservation districts that received funding are listed below:

<u>District</u>	<u>Grant Award</u>	<u>Match</u>	<u>Project Objective</u>
Aurora	\$21,000.00	\$70,200.00	Multi-Purpose Shelterbelts
Beadle	\$75,000.00	\$32,000.00	Well Development/Grazing Management
Beadle	\$15,000.00	\$24,225.00	Beadle Shelterbelt Program
Bon Homme	\$62,471.00	\$148,921.10	BHCD Conservation Enhancement Program
Brule-Buffalo	\$26,250.00	\$46,304.50	Brule-Buffalo Conservation Program
Campbell	\$18,000.00	\$182,000.00	Spring Creek Watershed Assessment
Clark	\$64,000.00	\$65,400.00	Shelterbelt/Windbreak Program
Corson	\$17,500.00	\$17,500.00	Resource Conservation Technician (TSP)
Davison	\$22,145.00	\$61,845.00	Davison County Conservation Program
Day	\$19,936.00	\$19,686.00	Tree Cultivation
Deuel	\$12,900.00	\$693,300.00	School, Bullhead, Round, Wigdale Lakes Improvement
Deuel	\$8,830.00	\$111,170.00	Non-Program Trees and Fabric
Douglas	\$16,000.00	\$19,900.00	Shelterbelt Planting Project
Elk Creek	\$21,460.00	\$29,450.00	Ricco Fire Rehab.
Grant	\$35,000.00	\$25,666.00	Grant County Tree Project
Hamlin	\$24,000.00	\$13,168.14	Shelterbelt Renovation/Establishment
Hamlin	\$4,000.00	\$9,333.00	Hamlin/Lake Poinsett Watershed
Hand	\$50,486.75	\$155,940.75	Hand/Hyde Enhancements
Miner	\$17,250.00	\$16,370.00	Water Quality Protection (Well Sealing)
Miner	\$20,000.00	\$25,648.00	Tree Planting Project
Minnehaha	\$100,000.00	\$236,060.00	Vegetated Treatment System
Moody	\$54,800.00	\$110,400.00	Central Big Sioux River Implementation
Sanborn	\$20,000.00	\$32,700.00	Shelterbelt Conservation Program
Stanley	\$60,000.00	\$201,875.00	Riparian/Rangeland Enhancement
Yankton	\$15,000.00	\$29,770.00	Yankton County Conservation Program
Yankton	\$29,820.00	\$87,556.00	Yankton County Conservation Program
<b>Total</b>	<b>\$830,848.75</b>	<b>\$2,466,388.49</b>	

## Conservation District Revolving Loan Fund

The Conservation District Revolving Loan fund was established by the South Dakota Legislature in 1949. Loans can be made to conservation districts or watershed districts for securing, by purchase or otherwise, necessary equipment, trees and other plant materials and supplies needed to further their programs. Loans are made at 3 percent interest per annum. Loans made in FY 2006 were:

<u>Conservation District</u>	<u>Loan Amount</u>	<u>Purpose</u>
Grant	\$15,000.00	Tractor & Trailer
Deuel	\$5,700.00	Tractor
Minnehaha	\$25,000.00	Pick-Up
Minnehaha	\$10,000.00	Grass Drill
McPherson	\$10,500.00	Compressor
Butte	\$17,900.08	No-Till Drill
Hamlin	\$15,000.00	No-Till Drill
Total	\$99,100.08	

### Assistance to Conservation Districts

The division is currently providing the following conservation program services:

- Administration of Coordinated Soil and Water Conservation Grants
- Administration of Conservation District Revolving Loan Fund
- Forestry technical assistance to districts (covers all 69 Conservation Districts)
- Monitor supervisor elections and maintain supervisory history
- State Resource Conservation Speech Contest in Pierre
- Respond to requests for assistance (legal questions, accounting and financial record keeping, grant and loan information, tree planting and personnel issues)
- Maintain a conservation district supervisor and employee telephone directory
- Special projects
- Provide training when requested (QuickBooks, grant management and planning)
- Participate at district and Conservation Commission functions (area meetings, annual convention, board meetings, act as advisors to committees, South Dakota Association of Conservation Districts Employees board advisor, etc.)
- Maintain district records, reports and history (financial, election, minutes, progress, grants and loans, etc.)



## CAFO Engineering Design Assistance Grants

The US Environmental Protection Agency set a deadline of September 2005 for Concentrated Animal Feeding Operations (CAFOs) in South Dakota to comply with state and federal water pollution control laws and become permitted.

The immediate need at these facilities was for engineering designs to determine the best management practices for each individual feeding site. In order to help meet this need, DENR, NRCS and the SD Department of Agriculture teamed up to provide nearly 1.2 million dollars in matching grants during the last three years. This has enabled livestock producers and livestock auction barns to hire licensed professional engineers to complete the designs for their manure management systems. This initiative pays up to 60%, with a maximum of \$12,000 in grant funding, per design. These grants will help nearly 126 CAFOs complete engineering designs and construction plans.

Producers with an approved design will be in a better position to receive construction funding through federal programs such as Environmental Quality Incentive Program (EQIP). This program will pay up to 75%, with a cap of \$150,000, for construction costs.

The number one benefit of this project will be protected or improved water quality for the citizens of South Dakota. It also keeps our livestock industry strong and helps to promote agriculture development as envisioned in Governor Rounds' 2010 Initiative.

**BEFORE**



**AFTER**



# Information and Educational Activities

## Smokey Bear and Wildland Fire Prevention

A total of 12 fire prevention and Smokey Bear programs were presented by service foresters to school classes, service organizations and other groups around the state, including appearances by Smokey during State Fire School, State Fair, and at various other events. Smokey Bear fire prevention materials valued at approximately \$4,000 were distributed by service foresters to schools, service organizations, fire departments, and many others who can use and learn from them. Materials were also distributed at the South Dakota State Fair in Huron, Dakota Fest in Mitchell and other major public events.

## Smokey Bear and Woodsy Owl Poster Contest 2006 Winners

The 2006 Woodsy Owl Poster Contest was sponsored by the Keep South Dakota Green Association (KSDG) and the State Federation of Garden Clubs (SDFGC). Entries were accepted in five competition divisions. First place winners received \$25 and certificates of achievement; second place winners received \$15 and certificates of achievement; third place winners received \$10 and certificates of achievement; honorable mentions received certificates of achievement. The winners selected by representative judges from the Dept. of Agriculture, Resource Conservation & Forestry Division, KSDG and SDFGC are:

### First Grade Competition Division

First Place: Cagney Effling, Highmore, SD  
Second Place: Riley Rinehart, Highmore, SD  
Third Place: Darrin Rilling, Custer, SD  
Honorable Mention: Taylor Grable, Custer, SD

### Second Grade Competition Division

First Place: Kaitlyn Hague, Highmore, SD  
Second Place: Kade Hieb, Highmore, SD  
Third Place: Mesa Goebel, Custer, SD  
Honorable Mention: Hailey Hagedorn, Lennox, SD

### Third Grade Competition Division

First Place: Haley Foster, Custer, SD  
Second Place: Sydney Cowan, Highmore, SD  
Third Place: Tierny Hamlin, Highmore, SD  
Honorable Mention: Shiann Kothe, Custer, SD  
Honorable Mention: Mary Reed, Highmore, SD  
Honorable Mention: Kaitlin O'Neill, Groton, SD

### Fourth Grade Competition Division

First Place: Chris Nemecek, Holabird, SD  
Second Place: Tyann Hamlin, Highmore, SD  
Third Place: Courtney Coffee, Lennox, SD  
Honorable Mention: Tara Kuper, Lennox, SD

### Fifth Grade Competition Division

First Place: Allison Olson, Highmore, SD  
Second Place: Tracey Hague, Highmore, SD  
Third Place: Hannah Elizabeth Kidd, Lennox, SD  
Honorable Mention: Katie Wipf, Chancellor, SD  
Honorable Mention: Michaela Rinehart, Highmore, SD



*Cash awards were provided courtesy of the KSDG association & the SDFGC*

## Urban and Community Forestry

In FY 2006 service foresters and the urban forestry specialist made 135 presentations to school classes and civic groups about Arbor Day, Tree City USA, and other urban forestry subjects. Ten workshops on tree planting and care were presented. There were two interviews with Dakota Farm Talk Radio Program and 10 TV, radio and newspaper spots about Arbor Day, tree planting and care were also produced.



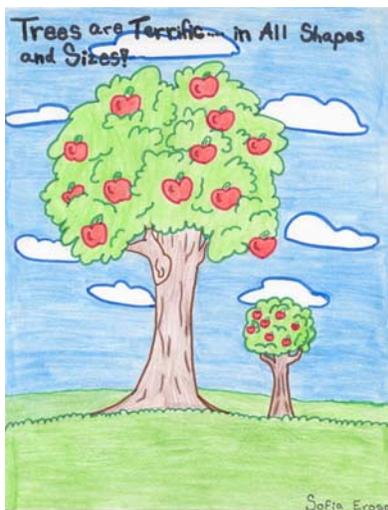
## Arbor Day

The last Friday in April was established by the 1947 State Legislature as South Dakota's official Arbor Day. The law was repealed in 1995 as part of an omnibus elimination of laws that restrict or pertain to state education, but re-established by the 1998 Legislature. Arbor Day traditionally falls on the last Friday in April. In FY 2006, that day was April 28<sup>th</sup>. It is the one day set aside each year to commemorate and plant trees for the many benefits they provide and the impact they have on our environment. On or around that date, division service foresters provided presentations to school classes, service clubs and other groups on the importance of planting and properly caring for our rural and urban trees, and of celebrating Arbor Day.

The division, in cooperation with the McDonald's Restaurants of South Dakota, the Keep South Dakota Green Association, and the South Dakota Association of Conservation Districts sponsored the 2006 Arbor Day Essay Contest. This was the 28th annual competition which is open to 5th and 6th grade students. A total of 1570 essays were entered from 38 conservation districts. The first place state winner, **Kyle Kramer** a fifth grader from Flandreau, SD in Moody County Conservation District, received a cash award of \$100, a jacket from McDonalds Restaurants of South Dakota, and a handsome engraved plaque. In addition, Kramer's school, **Flandreau Elementary**, received \$150 to purchase educational supplies or equipment. The second place winner, **Ciarra Barnhardt**, a fifth grade student from **Roslyn Elementary** in Day County Conservation District was awarded \$75 and an engraved plaque. **Haley Hubbard**, a sixth grader and the third place winner from **DeSmet Middle School** in Kingsbury County Conservation District was awarded \$50 and an engraved plaque. Keep South Dakota Green Association, provided each participant with a packet of honeylocust tree seeds with instructions on how to grow their own trees. McDonalds contributed dessert cards for each participant.

The division also cooperated with the National Arbor Day Foundation and the US Forest Service to sponsor the 13th annual Arbor Day Poster Contest, open to fifth grade students. Also cooperating at the

local level and providing the prize money was the South Dakota Arborists Association and the Dakota Society of American Foresters. The theme of the 2006 contest was "Trees Are Terrific...in All Shapes and Sizes!" in celebration of the 134<sup>th</sup> anniversary of the founding of Arbor Day. The first place winner, **Sofia Erosa-Burleson** who attends O.M. Tiffany Elementary in Aberdeen, was awarded a \$200 savings bond and an attractive certificate of achievement. **Stacy Hilman**, the second place winner from Hamlin Education Center in Hayti, received a \$150 savings bond and a certificate of achievement. Third place winner, **Kayla Hoekman** of Rutland School in Rutland, was awarded a \$100 savings bond and a certificate. Sofia's first place poster was forwarded to the national competition, but was not selected as the national winner.



2006 Arbor Day Poster Contest Winner  
by Sofia Erosa-Burleson, Aberdeen

## Tree City USA

Tree City USA is a community improvement and national recognition program for towns and cities that meet established standards and effectively manage their public tree resources. The program is sponsored by the National Arbor Day Foundation and the US Forest Service at the national level, and by the South Dakota Division of Resource Conservation and Forestry at the state level. To qualify for Tree City USA designation, a community must meet four standards:

1. Organize a community tree board to oversee the urban & community forestry program
2. Establish and enforce an effective community tree ordinance
3. Implement a community forestry program funded by a minimum of \$2.00 per capita
4. Celebrate Arbor Day with an official proclamation and organized observance

Division foresters re-certified 32 active Tree City USA communities and obtained one more for work done in 2006. This year the community of Aberdeen applied for a Tree City USA Growth Award, for improving their city tree ordinance and by receiving external funding from a local bank. South Dakota's Tree City USA communities with first year of recognition, population, 2006 forestry budgets, and per capita spending are as follows:

	Year First Recognized	Population	Urban Forestry Budget (2006)	Per Capita Spending	Application Received
Aberdeen	1980	28,000	\$ 343,425	\$ 12.27	11/28/2006
Baltic	2003	950	\$ 3,000	\$ 3.16	12/28/2006
Belle Fourche	1991	4,565	\$ 41,477	\$ 9.09	01/11/2006
Brookings	1982	18,500	\$ 286,050	\$ 15.46	01/03/2007
Burke	1982	676	\$ 1,500	\$ 2.22	11/30/2006
Clark	1981	1,285	\$ 42,917	\$ 33.40	12/15/2006
Deadwood	1992	1,800	\$ 15,667	\$ 8.70	01/06/2007
Dell Rapids	1984	3,188	\$ 6,954	\$ 2.18	01/03/2007
De Smet	1997	1,200	\$ 2,746	\$ 2.29	12/28/2006
Ellsworth Air Force Base	1999	9,954	\$ 106,971	\$ 10.75	01/04/2007
Freeman	2003	1,317	\$ 9,798	\$ 7.44	12/26/2006
Gary*	2006	231	\$ 40,000	\$ 173.16	11/27/2006
Gregory	1984	1,386	\$ 8,000	\$ 5.77	12/13/2005
Hartford	1992	1,844	\$ 4,282	\$ 2.32	11/27/2006
Huron	1982	11,893	\$ 28,500	\$ 2.40	01/02/2007
Lead	1987	3,027	\$ 128,400	\$ 42.42	11/30/2006
Madison	1980	6,225	\$ 16,930	\$ 2.72	12/04/2006
Mitchell	1980	14,558	\$ 147,012	\$ 10.10	12/01/2006
Mobridge	1983	3,500	\$ 30,326	\$ 8.66	12/26/2006
Pierre	1983	13,983	\$ 172,170	\$ 12.31	01/09/2007
Platte	1995	1,367	\$ 3,170	\$ 2.32	12/07/2006
Rapid City	1980	59,607	\$ 580,413	\$ 9.74	11/29/2006
Redfield	1990	2,800	\$ 27,920	\$ 9.97	12/29/2006
Sinai	2003	133	\$ 360	\$ 2.70	01/08/2007
Sioux Falls	1980	144,600	\$ 914,800	\$ 6.33	12/11/2006
Sisseton	1982	2,572	\$ 15,575	\$ 6.06	11/28/2006
Spearfish	1984	12,000	\$ 27,000	\$ 2.25	11/30/2006
Spencer	1999	162	\$ 388	\$ 2.39	11/30/2006
Sturgis	1983	7,000	\$ 36,907	\$ 5.27	12/04/2006
Vermillion	1984	10,050	\$ 25,100	\$ 2.50	01/03/2007
Watertown	1982	21,000	\$ 177,010	\$ 8.43	12/13/2006
Winner	1984	3,137	\$ 29,561	\$ 9.42	01/02/2007
Yankton	1983	13,969	\$ 63,015	\$ 4.51	01/03/2007

Total 406,479 \$ 3,337,345  
Average Per  
Capita Spending \$ 13.29

2005 South Dakota Census Est. 764,309

51% of S.D. Population live in TCUSA

\* indicates new TCUSA

## South Dakota Project Learning Tree, Inc. (PLT)

South Dakota Project Learning Tree, Inc. (SD PLT) is an award-winning environmental education program designed primarily for teachers and other educators working with students in pre-kindergarten through grade eight. Special modules, or teaching units are available for high school teachers. SD PLT uses the forest as a "window" into the natural world, helping young people gain an awareness and knowledge of the world around them, as well as their place within it. Children learn **how** to think -- rather than **what** to think about our complex environment, and they have fun learning as they and their teachers work with any of the 93 action-oriented activities described in the *Environmental Education Pre K-8 Activity Guide*. SD PLT materials also include great material for High School educators.



SD PLT was awarded an Incorporated Non-Profit Status in South Dakota during FY 2005. To aid educators SD PLT correlated the Basic, Focus on Forest, and Forest Ecology guides to South Dakota Science Educational Standards.

During FY 2006, one part-time PLT Coordinator, Dianne Miller, planned and coordinated workshops, classroom presentations, events and Walk in the Forest Days to promote the environmental education efforts statewide. Dianne devoted an average of 30 hours per week to the PLT program. A total of 8 educator and facilitator workshops in South Dakota resulted in the training of 163 educators.

The PLT Coordinator, service foresters and other facilitators hosted PLT activities at several Water Festivals to fourth grade students and their teachers. The Water Festivals were sponsored by the Department of Environment and Natural Resources and the South Dakota Conservation Districts, and were held at Brookings, Rapid City, Pierre, Sioux Falls, Huron, Watertown, and Vermillion. Educational displays for hands on activities were also held at the Boy Scouts Day Camp and Girl Scout Jams.

Across SD several schools hosted Arbor Day Events which included PLT activities including, Tree Factory, Adopt a Tree, and Tree poetry.

SD PLT is a proud tradition along with a bright and promising future in South Dakota. Its mission is to spread a well balanced environmental education program.

<b>Location</b>	<b>Type of Workshop</b>	<b>Instructor</b>	<b>No. of Trained</b>
Spearfish, BHSU			
Pre Service Class	Basic Educator	Hickenbotham, Gary	
Fall Semester			46
Spring Semester			17
Huron	Energy Workshop	Hickenbotham, Miller, & Gollhofer	8
Outdoor Campus, Sioux Falls	PLT/WILD	Gannon & Ulsvstad	11
Madison	Places We Live	Miller	22
Waubay, After School Program	Basic and Fire Educator	Brown & Miller	20
Brookings	Basic Introduction	Miller & Root	20
Facilitators Retreat	Facilitator's Training	Miller	
West River			7
East River			12
<b>Total:</b>			<b>163</b>
<b>Conferences and Events</b>			
Ag Fest, Pierre	Booth	Miller	200
Lumberman's Conference, Sioux Falls	Booth	Miller	650
Early Childhood Educators Conference	PLT Activities	Miller	175
SD Math and Science Conference	PLT Activities	Gollhofer & Miller	250
Kids Fair, Rapid City	Booth and Activities	Miller and SAF Members	3500
After School Convension	Booth and Activities	Miller	250
Girl Scout Day Camp	Activities	Miller	125
Girl Scout Jam	Booth and Activities	Hettick and Smith	250
<b>Classroom Presentations</b>			
Belle Fourche Pre School, Kindergarden and First Grades			300
Spearfish First Grade		Miller	180
Arbor Day/Second Grade planning tree		Miller, Coburn, and Baker	65
Summer School Program, Rapid City			145
Canyon Science Day, Spearfish Fifth Grade			180
Spearfish Kindergarden, Walk in the Park Day		Gollhofer & Miller	185
<b>Total</b>			<b>6455</b>

## Tree Farm



The division also participates in the American Tree Farm System. The South Dakota Tree Farm Committee is sponsored in part by the Keep South Dakota Green Association. Tree Farms inspected that involve 2,473 acres of forestland and windbreaks; Division service foresters completed 34 of the inspections. There were ten inspections of new Tree Farms. There are currently 190 Tree Farms in South Dakota covering 24,200 acres. Dave and Karen Papcke of Hot Springs were chosen as the 2006 Outstanding Woodland Tree Farmer of the Year. Dean Strand of Mitchell was chosen as the 2006 Windbreak Tree Farmer of the Year. Service foresters from the division nominated both award winners. The division also provides secretarial and database administration services for the Tree Farm Committee.



## Logger Education

CRSFEP



Central Rockies  
Sustainable Forestry  
Education Program

The Central Rockies Sustainable Forestry Education Program (CRSFEP) is an organization made up of professionals representing loggers, forest products industry, state forestry agencies, forest landowners, and natural resource educators from South Dakota, Wyoming, and Colorado. The mission of the organization is to develop, support, and provide a course curriculum to improve the knowledge and implementation of forestry practices. In 2006, the division provided leadership to the organization by serving as President.

Logger Education in South Dakota is a cooperative effort involving the division, South Dakota Extension Service, Black Hills Women in Timber, the Black Hills Forest Resource Association, and the Black Hills National Forest. Workshops cover a wide range of forestry related topics including silviculture and forest ecology. FY 2006 workshops focused on forest ecology, silviculture, and safety training.

## Resource Conservation Speech Contest

Each year for the last 45 years the division has sponsored a Resource Conservation Speech Contest in cooperation with the South Dakota Association of Conservation Districts (SDACD) and the US Fish and Wildlife Service.

Any South Dakota student in grades 9-12, is eligible to compete. Scholarships are in the amount of \$2,300, contributed by South Dakota Rural Electric Association, East River Electric Power Cooperative and Rushmore Electric Power Cooperative. Five place winners are selected each year, with the top three receiving scholarships. The scholarships are paid to any college, university or accredited vocational technical school in the state of South Dakota chosen by the winners.

The theme for the 2006 contest was "Conservation – What Everyone Should Know." All contestants participated in a local contest coordinated by the local conservation district. Stage two was an area contest held at seven locations around the state, corresponding to the South Dakota Association of Conservation Districts areas. The last stage was the State Final contest that was held in Pierre April 1, 2006.

Winning first place and a \$1,100 scholarship was Kama Konda, a freshman at Sisseton High School, sponsored by the Roberts County Conservation District. She is the daughter of Frank and Dinah Konda of New Effington.

The second place winner, CallieJo Zabel, a senior at Selby Area High School in Selby, was awarded a \$750 scholarship. She is the daughter of Tim and Helen Zabel of Lowry and was sponsored by the Walworth County Conservation District.

Placing third and receiving a \$450 scholarship was Elissa Hohbach, a junior at Plankinton High School, sponsored by the Aurora Conservation District in Plankinton. Elissa is the daughter of Brad and Ellen Hohbach of White Lake.

## **ATV Training**

A division employee took the ATV Safety Institute instructor training in 2004 in order to teach state employees, new or experienced, the safety precautions necessary for operating an ATV. This person taught two ATV safety classes this year to personnel from the SD Dept of Agriculture and the SD Dept of Game Fish & Parks. A total of 11 people took the rider-active course, a 4-hour long class.



A picture of class participants practicing safety in the "rider-active" portion of the course.



Instructors lecturing on safety.

## **Financial Assistance to Local Organizations**

**Summary of Grants Awarded**  
**by County, Program and Amount During State Fiscal Year 2006**

U&CF = Urban & Community Forestry Sub-Grants, See Pages 11  
 CSWC = Coordinated Soil & Water Conservation Grants, See Page 18

<u>County</u>	<u>Grant Recipient</u>	<u>Program</u>	<u>Amount Awarded</u>	<u>Local Match</u>	<u>Total Project Cost</u>
Aurora	Aurora Conservation District	CSWC	\$21,000.00	\$67,700.00	\$91,200.00
Beadle	Beadle Conservation District	CSWC	\$75,000.00	\$77,000.00	\$167,000.00
	Beadle Conservation District	CSWC	\$15,000.00	\$23,475.00	\$39,225.00
	City of Hitchcock	U&CF	\$750.00	\$750.00	\$1,500.00
	City of Huron	U&CF	\$5,000.00	\$5,000.00	\$10,000.00
Bennett					
Bon Homme	Bon Homme Conservation Dist.	CSWC	\$62,471.00	\$140,421.10	\$211,392.10
Brookings	City of Bruce	U&CF	\$1,150.00	\$1,150.00	\$2,300.00
Brown	City of Aberdeen	U&CF	\$3,500.00	\$3,500.00	\$7,000.00
Brule	Brule/Buffalo Conservation Dist.	CSWC	\$26,250.00	\$26,304.50	\$72,554.50
Buffalo					
Butte					
Campbell	Campbell Conservation Dist.	CSWC	\$18,000.00	\$22,000.00	\$200,000.00
	City of Pollock	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
Charles Mix					
Clark	Clark Conservation Dist.	CSWC	\$64,000.00	\$65,400.00	\$129,400.00
Clay					
Codington					
Corson	Corson Conservation Dist.	CSWC	\$17,500.00	\$8,750.00	\$35,000.00
Custer					
Davison	Davison Conservation Dist.	CSWC	\$24,145.00	\$53,345.00	\$85,990.00
	City of Mitchell	U&CF	\$2,500.00	\$2,500.00	\$5,000.00
Day	Day	CSWC	\$19,936.00	\$11,250.00	\$39,622.00

	Conservation Dist.				
Deuel	Deuel Conservation Dist.	CSWC	\$12,900.00	\$169,950.00	\$706,200.00
	Deuel Conservation Dist.	CSWC	\$8,830.00	\$62,270.00	\$120,000.00
	City of Gary	U&CF	\$5,000.00	\$5,000.00	\$10,000.00
Dewey					
Douglas	Douglas Conservation Dist	CSWC	\$16,000.00	\$19,265.00	\$35,900.00
Edmunds	City of Hosmer	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
Fall River					
Faulk					
Grant	Grant Conservation Dist.	CSWC	\$35,000.00	\$25,500.00	\$60,666.00
Gregory					
Haakon					
Hamlin	Hamlin Conservation Dist.	CSWC	\$24,000.00	\$28,959.00	\$52,959.00
	Hamlin Conservation Dist.	CSWC	\$4,000.00	\$4,000.00	\$13,333.00
Hand	Hand Conservation Dist.	CSWC	\$50,486.75	\$102,740.75	\$206,427.50
Hanson					
Harding					
Hughes					
Hutchinson	City of Freeman	U&CF	\$2,241.85	\$2,241.85	\$4,483.70
Hyde					
Jackson					
Jerauld					
Jones					
Kingsbury					
Lake					
Lawrence	City of Spearfish	U&CF	\$2,821.00	\$2,821.00	\$5,642.00
Lincoln					
Lyman					
McCook	McCook County	U&CF	\$2,558.64	\$2,558.64	\$5,117.28
McPherson	City of Eureka	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
Marshall					
Meade	Elk Creek Conservation Dist.	CSWC	\$21,460.00	\$29,450.00	\$50,910.00
	City of Sturgis	U&CF	\$4,000.00	\$4,000.00	\$8,000.00
Mellette					
Miner	Miner	CSWC	\$17,250.00	\$15,370.00	\$33,620.00

	Conservation Dist. Miner Conservation Dist.	CSWC	\$20,000.00	\$24,858.00	\$45,648.00
Minnehaha	Minnehaha Conservation Dist.	CSWC	\$100,000.00	\$80,000.00	\$336,060.00
	City of Brandon	U&CF	\$3,000.00	\$3,000.00	\$6,000.00
	City of Dell Rapids	U&CF	\$1,100.00	\$232.50	\$465.00
Moody	Moody Conservation Dist.	CSWC	\$54,800.00	\$44,000.00	\$165,200.00
Pennington	City of Rapid City	U&CF	\$1,632.50	\$1,632.50	\$3,265.00
Perkins					
Potter					
Roberts					
Sanborn	Sanborn Conservation Dist.	CSWC	\$20,000.00	\$31,825.00	\$52,700.00
	City of Artesian	U&CF			
	City of Woonsocket	U&CF	\$1,731.00	\$1,731.00	\$3,462.00
Shannon					
Spink	City of Ashton	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
	City of Frankfort	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
	City of Northville	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
	City of Redfield	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
	City of Tulare	U&CF	\$1,000.00	\$1,000.00	\$2,000.00
Stanley	Stanley Conservation Dist.	CSWC	\$60,000.00	\$76,875.00	\$261,875.00
Sully					
Todd					
Tripp	City of Winner	U&CF	\$4,000.00	\$4,000.00	\$8,000.00
Turner					
Union					
Walworth	City of Mobridge	U&CF	\$4,500.00	\$4,500.00	\$9,000.00
Yankton	Yankton Conservation Dist.	CSWC	\$15,000.00	\$23,020.00	\$44,770.00
	Yankton Conservation Dist.	CSWC	\$29,820.00	\$77,556.00	\$117,376.00
Ziebach					
<b>TOTALS</b>			\$886,333.74	\$1,363,901.84	\$3,480,263.08