

Utah Forest News

Utah Forest Landowner Education Program Newsletter

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Deseret Land & Livestock: Benefitting from Wildlife Management

Established in 1891 for sheep grazing, Deseret Land & Livestock is a 200,000 acre, privately-owned ranch, dedicated to the proper management of land. Owned and operated by the Farm Management Company, a tax paying entity of the Church of Jesus Christ of Latter-day Saints, the ranch mission is to “make a profit while maintaining or enhancing the resource.”

The key to managing Deseret Land & Livestock (DL&L) involves maintaining the health and productive capacity of the land. This requires careful management of both the amount of time and the time of year that grazing occurs. Maintenance of diverse, productive rangelands allows DL&L to produce domestic grazing animals (sheep and cattle) and healthy wildlife populations. Revenues from production of domestic livestock are the mainstay of the ranch, but income generated from wildlife-based recreational activities adds to ranch profits.

The diversity of habitats on the ranch supports a variety of wildlife. Elevation averages 6,300 feet on the rolling eastern half of the ranch, which is dominated by sagebrush-grasslands. The western half of the ranch, at elevations near 8,700 feet, is approximately 110,000 acres of mountainous, semi-open brush and grasslands with scattered stands of aspen and fir. DL&L range supports big game species including mule deer, elk, pronghorn, and moose. The ranch also supports numerous song birds, sage grouse, waterfowl, and a healthy fishery.

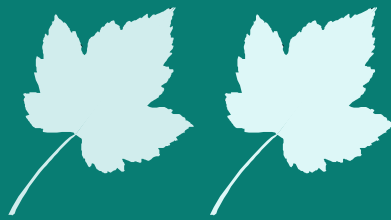
Deseret Land & Livestock manages for a diversity of wildlife species in balance with year-round forage resources. Although wildlife management on the ranch

emphasizes big game species, an attempt is made to consider all wildlife species in management decisions. Big game management goals include carrying adult populations of 3,500 mule deer, 1,800 elk, 600 pronghorn, and 100 moose on the summer range. Annual harvest goals for the big game species include 10% of the males and enough females to maintain herds at desired levels.

Deseret Land & Livestock is currently participating with the state of Utah in the Cooperative Wildlife Management Unit (CWMU) program. A big game hunting program accounts for the majority of income generated by the wildlife program. However, revenue also is derived from guided fly-fishing trips, waterfowl hunting, and bird watching tours. Public education and good public relations are added benefits of the wildlife management efforts at DL&L. Ranch managers value the opportunity to show the public that domestic livestock, wildlife populations, and healthy range and forest lands can all coexist.

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Wildlife-based recreational activities have some costs in terms of road maintenance and the occasional stray cow from gates left open, but according to Rick Danvir, Wildlife Manager for DL&L, the benefits of public education and additional income outweigh the costs. "The best we can hope for is when people realize that we can manage for both wildlife and cattle. After all, the long-term future of ranching depends on positive public support."

Wildlife species on the ranch benefit from healthy forested areas as well as the rangelands. Last year, forested areas of

Deseret Land & Livestock and adjacent lands of the US Forest Service were evaluated for overall productivity and regeneration of mature aspen stands, as well as for problems with encroachment of sub-alpine fir. DL&L and the US Forest Service have planned several controlled burns to address encroachment of sub-alpine firs, and encourage natural regeneration of aspen. The goal of these burns is to reinvigorate and increase productivity of the aspen stands, reduce the risk of fire, improve watershed health, and increase

overall productivity of these sites. Controlled burns are planned for DL&L rangelands in mid-elevation areas as well, where old, decadent sagebrush suppresses the native understory. The goal of these burns is to increase the productivity of these sites and maintain healthy watersheds. For more information on the wildlife management program or recreational opportunities at Deseret Land & Livestock, call 435-793-4288.

Source: Bob Wharff, Biologist, Deseret Land & Livestock



© Mark Stackhouse, Westwings Inc.

Bird watchers enjoy displays by a Blue Grouse on Deseret Ranch. (Photo by Mark Stackhouse)

The Hunt Is On For National Champion Big Trees

Talk about big game, professional and amateur tree hunters are combing the country looking for an elusive trophy, a national champion tree. These biggest-known specimens of their kind are found in forests, parks, and hometowns across America. Every two years the national nonprofit conservation group, American Forests, publishes the official list of champions in the *National Register of Big Trees*. The deadline for nominations for the year 2000 register is August 1, 1999.

Big tree hunters in Utah have successfully placed six trees on the national register. The largest blue spruce in the nation can be found in Duchesne County, and the largest rocky mountain juniper is found in Sardine Canyon in Cache County. The rocky mountain juniper holds the distinction of being one of the few species that has been on the register since its inception in 1940.

"All told, 823 species of native and naturalized trees in the United States are eligible for inclusion in the register," said Tony Dietz, urban forestry coordinator for the Utah Division of Forestry, Fire and State Lands. "Right now, there are 136 species which don't have a champion listed so a nomination for one of them stands a good chance of ending up on the register." For more information on how to nominate a tree, contact Tony Dietz at 801-538-5505.

Source: Jim Springer, Public Information Specialist, DFF&SL

Forestry Festival

June 19th, 8 am - 2 pm
Sugarhouse Park (1300 E 2100 S) in Salt Lake City

This educational, informational event will be fun for the whole family! Come learn about tree pruning, tree identification, forest bugs & diseases, forest management, harvesting, fire, wildlife, and more. Experts from Utah Division of Forestry, Fire and State Lands, Division of Wildlife, US Forest Service, USU Extension, and others will be on hand to provide information and answer questions. There will be activities for the kids too, so don't miss it! It's FREE and open to the public!

Managing Aspen for Wildlife Benefits

Aspen is an important component of Utah forests. In addition to providing economic benefits, aspen supports a diversity of wildlife. Aspen stands provide big game species, particularly mule deer, with thermal cover in winter, shelter for calving, and visual cover from predators. Aspen seedlings and saplings are used as forage for these species throughout the year. Aspen stands furnish important habitat for forest grouse, especially ruffed grouse, which use openings in mature aspen stands for displaying during mating season. Many songbird species depend on aspen stands for both nesting sites and associated insect populations that represent a substantial portion of their diet. Maintaining diverse age classes or stands of aspen on Utah farms, ranches and forests not only maximizes benefits for these species of wildlife, but provides landowners with additional benefits, including forage for livestock and improved watershed health.

Unfortunately, aspen stands throughout the west are declining, primarily as a result of fire suppression. Disturbance that creates openings in the canopy and allows sunlight to reach the forest floor is required for sun-loving aspen to regenerate. Fire suppression prevents these types of disturbances, allowing the development of dense canopies that favor the establishment of shade-loving species, such as sub-alpine fir. As a result, many aspen

stands throughout the west are being replaced by fir and other conifers. The only way to ensure that aspen remains part of western forests is through manipulation of older aspen stands to create circumstances favorable to aspen regeneration.

In the eastern states, aspen regeneration is often accomplished through commercial harvest. Although there is a growing market for aspen in the west, currently the commercial outlets may not be adequate to sustain the large scale habitat manipulations needed to achieve desired levels of regeneration.

Aspen regeneration can be accomplished by removal of the overstory or canopy trees. The removal of these trees reduces competition for water, nutrients, and sunlight thus stimulating vegetative reproduction through root suckering. This removal is most commonly accomplished by cutting. Clearcutting in small blocks of less than 10 acres in size produces a higher density of suckers than through partial cutting. By limiting the size of the clearcut to under 10 acres, negative impacts to wildlife that depend on the stand are limited. If heavy equipment is used when cutting, caution should be taken to avoid damage to aspen root systems. Cuts are best done in the late summer or autumn. Heavy slash remaining after a cut can reduce aspen regeneration. However, some slash left on the landscape can reduce erosion while protecting new suckers from being over grazed.

Natural regeneration of aspen in the past was probably a result of wildfires. Aspen is very susceptible to fire and responds with heavy suckering after the overstory trees are killed. Fires in stands not dominated by aspen can kill competing species and cause dormant aspen roots to produce abundant suckers, thus creating a new aspen stand.

Prescribed burning of aspen stands may be difficult unless a shrub or conifer understory is present. Grazing by domestic livestock and elk in aspen stands can reduce understory vegetation to levels that will not support a fire.



Aspen are being replaced by shade-tolerant conifers species throughout the intermountain West.



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If this situation exists, removal of grazing pressure for a season or two may help increase the understory fuel load necessary to support a fire.

Bulldozing and chaining may also be used to remove overstory trees and promote aspen suckering. When using heavy equipment, extra caution should be taken to ensure the root systems are not damaged. Winter bulldozing often results in high suckering stem densities, perhaps because frozen soil and snowpack protect aspen roots from damage.

Grazing by domestic livestock and big game animals can have a substantial impact on aspen regeneration. If the areas to be treated will be grazed by livestock or wildlife, slash can be left on the ground to reduce animal use of the area. If animal use is heavy, regenerating stands of aspen may be fenced until the saplings outgrow the reach of grazing animals. Cattle generally have a less detrimental effect on regenerating aspen than sheep and possibly elk. Sheep should not be allowed to regaze regenerating areas for at least 4 years after the treatment.

For more information about regenerating aspen and managing aspen stands to maximize benefits for wildlife, contact your FF&SL area forester or call 435-797-0560.

Source: Terry Messmer, Wildlife Extension Specialist, Utah State University



Mule deer find cover in an aspen stand.

Classifieds

This classified section is intended as a service for forest landowners. Listing of these services, companies, and individuals here in no way implies endorsement by Utah State University Extension. We suggest that you use the same precautions you would use in the purchase or sale of any goods and services, including asking for and checking references and using a written agreement to clarify the obligations and responsibilities involved in a sale or service contract.

Utah Forest Products, Inc. – Looking for saw logs and offering competitive bids on standing timber. All species considered. Complete management proposals offered using best management practices. Contact John Schmidt, Forester, at 435-865-9438 or at our mill in Escalante, 435-826-4521. Please keep Utah forests working for Utah!

Cascade Mountain Resources – Currently purchasing standing timber and logs, all species, dead and green. Appraisals, timber evaluations, and management plans available upon request. Contact Mike Orndorff, Resource Manager at 435-637-4633 at our mill in Price.

Looking to Buy Private Timber – No stand too big or small. Species range from spruce dead or green, douglas fir, lodge-pole pine, ponderosa pine. Top prices paid. Please call for company info and references: 435-676-8940, 435-676-8941 (FAX), 530-713-0580 (cellular).

Do you have forest resources you are looking to sell? Are there specific timber resources you are looking to buy? Do you offer services useful to forest landowners? This is the place to advertise your needs! If you would like to place an ad, call Lisa Dennis-Perez at 435-797-0560 or e-mail lisadp@ext.usu.edu.

Advertisement is FREE!

Evolving Stewardship in a Southern Utah Gambel Oak, Ponderosa Pine, and Pinyon/Juniper Forest

After our children left home, Kathy and I were looking for some rural Utah land. We hoped to find beauty, but never imagined owning a forest capable of a sustained flow of oak and conifer firewood, future Ponderosa Pine sawlogs, and wildlife. Plus beauty – and what beauty there is in and around our southwestern Utah forest.

Several years ago, we bought a quarter section on the border of Bryce Canyon National Park, with about 60 acres of Ponderosa pine and 60 acres of Gambel oak and pinyon/juniper forest. The forests had been logged continuously for about 100 years for lumber, fence posts, and firewood. This sculpted the Utah juniper in interesting coppiced forms, and greatly reduced the amount and range of original Ponderosa pine. Yet, this was still one of the most diverse Utah forests we had encountered in 30 years living in the West. It was also excellent turkey and deer habitat, with frequent falcon, owl, bear and cougar visitations.

Given our values and the fact that this forest borders a city watershed, our forest stewardship management goals were personal and community-oriented:

1. Encourage Ponderosa pine to reclaim its historic frequency and range through regeneration and release;
2. Maintain vegetative and wildlife habitat diversity; and
3. Reduce erosion and improve watershed health.

As a forestry professor at Utah State University for about 30 years, it was easy and comfortable for us to work with the Utah Division of Forestry, Fire and State Lands personnel for advice and support (Ron Larsen, Area Manager, and his staff). They soon had us writing a Stewardship Plan documenting the current conditions of this forest and our dreams for its future. They helped us apply for US Department of Agriculture financial support (through the Stewardship Incentives Program or SIP) for forest management, wildlife habitat improvement, and erosion control. A special and unexpected reward in this stewardship project was the reversed roles of past students in the Division (such as Blaine Hamp and Clint

Reese) critiquing their old professor's homework. Development of this Stewardship Plan was an enjoyable and educational process, that should not frighten anyone considering it.

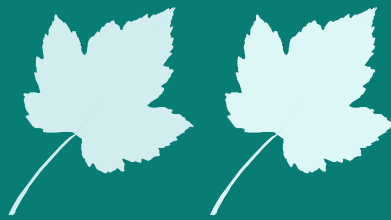
With the advice and assistance of state stewardship foresters, we have removed patches of continuously-cropped and damaged Pinyon/Juniper trees on about 50 acres – opening that site to natural and artificial regeneration of Ponderosa pine. The large woody material cut was skidded about 200-400 feet to slow down erosion in three ten-foot-deep gullies. Minimal site disturbance and no visible erosion resulted from this rubber-tired clearance and skidding, and most Gambel oak patches are still intact to protect the site, maintain wildlife habitat, and provide the beauty of a future forest of mixed hardwoods and conifers.

There is an old Irish proverb: “Draw strength from the land, and repay it with beauty.” Kathy and I, our children, and grandchildren plan to “draw” firewood, some sawlogs, bird song and spiritual renewal from this land for many decades. But beauty brought us to this land in the first place and through all the forest work and manipulation we do, beauty is its most central and enduring gift.

Source: Jim Kennedy, Forest Owner, Forestry Professor, and Recipient, along with his wife Kathy, of the award for “Utah Forest Landowners of the Year for 1998”



State Forester Art DuFault presents Jim Kennedy with the “Utah Forest Landowner of the Year” Award for 1998.



Agroforestry Systems: Wildlife and Economic Benefits

Agroforestry systems are known to enhance wildlife habitats and increase associated wildlife populations. The number of possible combinations of trees and other components in agroforestry systems is virtually infinite. Combinations are limited only by the landowner's objectives and by the land's characteristics. This variability makes agroforestry systems applicable over a wide range of land areas.

There are five major agroforestry practices currently in use in the United States. They are windbreaks, alley cropping, riparian buffer strips, forest farming, and silvopasture. Each of the five systems represents an alternative to single-use methods, while simultaneously providing both economic returns and wildlife habitat for landowners and communities. The economic and wildlife benefits can be considerable if landowners choose a system that will be the most productive and most compatible with their land.

Windbreaks use rows of trees or a combination of rows of trees and shrubs placed at right angles to the prevailing wind direction and scattered across an area to reduce wind speed and trap snow. By reducing wind speed, windbreaks

help to increase crop quality, improve pesticide application, facilitate better water and frost management, control erosion, and improve the efficiency of livestock production. The vegetation used within windbreaks can provide additional income if fruit, timber, or

nut-producing tree species are utilized. Windbreaks provide wildlife benefits in the form of travel corridors, shelter, nesting and brooding cover, and food for many small mammals, furbearers, game birds, and songbirds. Enhanced habitat and increased wildlife populations can provide additional income to landowners through user-fee arrangements in which hunters, wildlife photographers or bird watchers pay for access to the property.

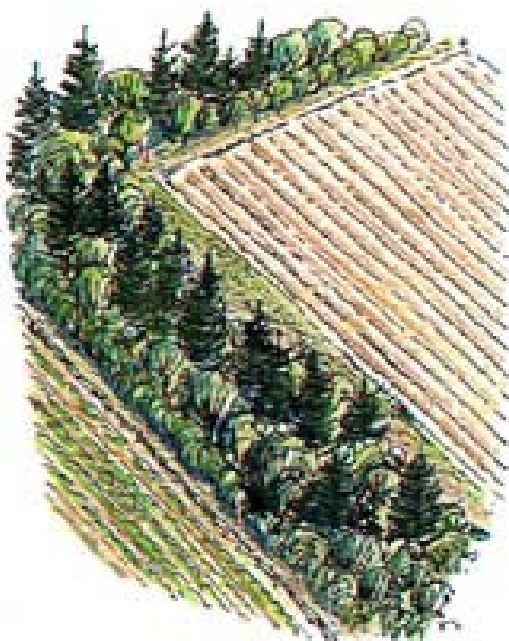
Alley cropping involves planting single or multiple rows of trees at wide spacings, thereby creating alleys for growing agricultural or horticultural crops. Economically, alley cropping creates cash flow from traditional agricultural crops while allowing time for the trees to mature.

This tree/crop arrangement produces greater yields than if the components were grown separately. Wildlife benefits associated with alley cropping systems include perches for insect eating birds, roosting and breeding areas for nesting birds, and protective cover for game birds and small mammals.



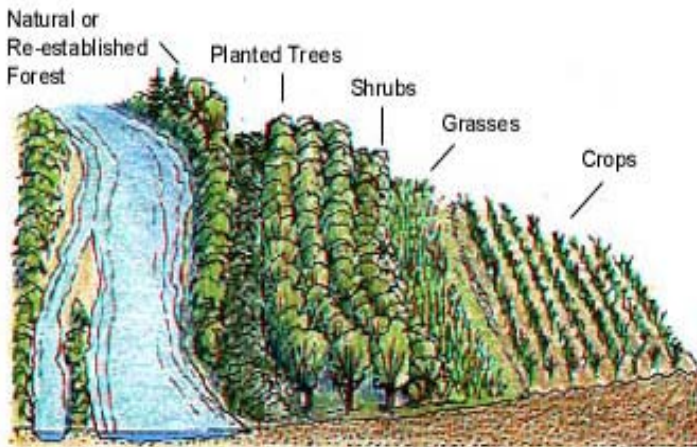
Alley Cropping

Riparian buffer strips combine a variety of tree, shrub, and grass species in plantings between farm or ranch lands and streams, lakes, or wetlands. Riparian buffers help decrease chances of future economic loss by reducing erosion, trapping sediment, stabilizing the stream banks, and slowing peak flows of flood water. Wildlife and recreational opportunities are also created and enhanced by riparian buffer systems. The buffer supplies shelter, food, cover, and water for wildlife,



Windbreaks

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Riparian Buffers

returns nutrients to the aquatic ecosystem, regulates stream temperatures, and provides resting sites for migratory birds. Riparian vegetation also provides important shelter and bedding areas for domestic livestock.

Forest farming involves using microenvironments within the forest to grow specialty crops. Forest farming is growing in popularity due to a decline in timber production and logging and an increase in demand for alternative specialty crops. Such specialty products include ginseng and other medicinal plants, craft materials, floral products, honey, Shitake and other mushrooms, and native fruits and nuts. All of these crops are compatible with timber crops. Forest farms are home to numerous species of migrant and resident birds, and they support game birds, small mammals, and ungulates.



Forest Farming

Silvopasture is a system that combines forage, tree and livestock production. Adding trees to forage systems creates potential income from timber products, pasture rents, Christmas trees, and fruit and nut production. Silvopastoral systems are home to numerous small mammals and gamebirds. These systems also provide forage for wild ungulates and shelter and bedding areas used by wild, as well as domestic stock.



Silvopasture

Agroforestry systems are somewhat less vulnerable to market fluctuations because they deliver more than one product from a single land area. For landowners, this is extremely important because it provides the potential for steady, year-round sources of income, regardless of the prevailing market. Wildlife-oriented recreation user-fees are one way in which this income can be generated. Agroforestry, on a broader scale, is important because it offers greater financial returns than unmodified agricultural systems while introducing some of the environmental attributes of natural ecosystems. As more land is converted from open space to other uses, connecting fragmented areas of wildlife habitat becomes increasingly important. Agroforestry systems provide one avenue for accomplishing this task, while providing landowners with valuable opportunities for diversifying the income generated on their property.

For more information on designing an agroforestry system for your property, contact your local NRCS office, FF&SL area forester, or call 435-797-0560.

Source: Adapted from "Wildlife Offers Economic Potential in Agroforestry Systems" by A.E. Latham and S.C. Grado, in: Inside Agroforestry, newsletter of USDA Forest Service and Natural Resource Conservation Service, Spring 1999.



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Upcoming Events

Natural Resource Conservation Day Fair:

- June 18, 1999, at Dept. of Natural Resources, 1594 West North Temple, Salt Lake City.

Call 801-537-3312 for more information.

Forestry Festival:

- Educational, informational event for the whole family! Come learn about pruning, tree identification, forest bugs, fire, harvesting, and more!

- June 19, 1999, at Sugarhouse Park, 1300 East 2100 South, Salt Lake City, Utah

Call 435-797-0560 for more information.

Windbreak Technology Shortcourse:

- August 17-19, 1999, in Cedar City, Utah.

Call Chad Reid at 435-586-8132 for more info.

For More Information:

Regarding any of the information presented in this newsletter, please call Lisa Dennis-Perez at Utah State University at 435-797-0560.

State of Utah Division of Forestry, Fire and State Lands (FF&SL) service foresters for your area can be contacted by calling 801-538-5555.

Ideas and written contributions to this newsletter are encouraged. Send your comments to the return address below or call 435-797-0560. **NEXT DEADLINE:**

July 16th

Non-Profit Org.
U.S. Postage Paid
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Permit No. 1

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