

UNIVERSITY
OF WYOMING

Profitable & Sustainable
AGRICULTURAL SYSTEMS
UW Cooperative Extension Service

UW provides helpful information to those with small-acreage, horticulture interests



Wayne Tatman

Those of us within the University of Wyoming College of Agriculture and the Cooperative Extension Service (CES) hope you enjoy this edition of *Barnyards & Backyards*, a publication circulated twice a year in different newspapers throughout Wyoming.

This edition is for people who own or have interest in small acreages and horticulture. In fulfilling our mission to provide Wyoming residents educational information on a variety of topics and issues, the CES has chosen this edition as one way to reach an important audience with timely information. This publication will be distributed in the Casper, Cheyenne, Gillette, and Rock Springs newspapers.

As you read and enjoy this newspaper edition, keep in mind the articles are primarily written by educators and specialists within the CES and all, in addition to others within the College of Agriculture, are there

to serve you. If you have questions related to any of the topics included in the edition, please call the authors or a local extension educator. Extension office contacts can be obtained on the Web at <http://www.uwyo.edu/UWces/Counties.asp>

The Profitable and Sustainable Agricultural Systems (PSAS) Initiative Team, as a part of the CES, is responsible for developing and distributing this edition in addition to a similar insert that was published in the rural newspapers earlier this year. The team also produces a one-page layout each month in the *Wyoming Livestock Roundup* newspaper.

We hope you enjoy reading the paper, and we welcome any suggestions for future topics.

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RACE for the GREEN

Proper management helps ensure spring grazing doesn't chew into rangeland health

By Paul Meiman

After a long Wyoming winter, isn't it great to see the green of spring?

Chances are you and your livestock are gung-ho to hit the new green grass and stop feeding and eating hay, respectively. But wait...there are a couple of very important things to keep in mind!

What does it take to get going first thing in the morning? No matter how much of a morning person you are, chances are you still need some time for systems to fire up and the gears to engage. In some ways, early spring-time for rangeland or pasture grasses is like morning for us. It takes a little bit of time for grasses to get up and running, and this has important implications for grazing management.

We know plants use stored carbohydrates (sugars and starches) for the energy needed to push the first few leaves above the ground after spring warm-up. After that, the new green leaves are very important for supplying the energy (through photosynthesis) for additional growth.

The bottom-line is the new green material is very important to the plant, and grazing needs to be managed so some of that green material goes to support plant growth. Removal of more than half of that green material can harm plants. Damage can also occur if animals are allowed to repeatedly graze plants early in the year. Improper

spring grazing management can lead to weakened plants, reduced production, death of individual plants, and weed problems.

Another thing to keep in mind regarding early grazing is that the supply of green grass is low while the demand is high. Imagine being a horse, cow, elk, or deer. All winter long, these critters have been eating dried up old grass or hay. Chances are good they are anxious to eat some nice, green grass. Those who have been feeding hay all winter are looking forward to that chore coming to an end for the year.

So, the race for the green is on – demand is high. But remember that early growth occurs slowly. If animals are out to pasture early in the spring, they should be spread out or moved rapidly through an area so that not all plants are grazed early or, if they are, each plant is only grazed once.

Taking a few precautions when managing spring grazing can ensure pasture and rangeland plants remain healthy. The benefits of keeping pastures and rangelands in good condition are numerous and in the best interest of all producers.

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Early in the spring, when the supply of green grass is low but the demand is high, grazing managers should strive to have animals spread out or moved through an area quickly. After consuming virtually no green grass all winter, grazing animals are attracted to areas that look lush and green in the spring. From a distance, it may look like there is more grass than is actually available.



Rangeland plants require the proper mix of conditions to begin growth in the spring. Two of the major factors that control the initiation of plant growth are temperature and precipitation. This photograph was taken in mid-June in eastern Wyoming. The lack of green growth was driven by shortages in soil moisture. Notice that anywhere there had been a little extra water, plants are green and actively growing. Everywhere else has remained fairly dormant. This is another example of how the supply of green grass in the spring may be limited.



The impacts of grazing on grasses are different depending on what stage of growth the plants are in when grazing occurs. It is believed the boot stage is one of the most damaging times for grasses to be exposed to grazing. The boot stage is when a developing seed head is being elevated. This picture shows a crested wheatgrass plant coming out of the boot stage. Managing grazing to avoid livestock being in the same place at the same time every year helps reduce potential problems associated with grazing.



A useful way to determine when grazing should begin and end in a given pasture is to measure plant height. In Wyoming, this approach would be most applicable in irrigated pastures or otherwise productive areas. Recommendations for grass heights that indicate when grazing should begin and end vary by species. For most irrigated pasture grasses, grazing should not begin until there is around 6 inches of growth. Some producers use a grazing stick like the one shown in this photo.





Two niche markets offer small producers unique opportunities



By Bridger Feuz

Niche markets can offer economically rewarding and enjoyable opportunities for cattle producers. These opportunities can be ideally situated for smaller operations or even those individuals with just a few acres.

Raising a unique breed of cattle such as Lowline Angus or raising bucking seedstock to produce rodeo bulls offer opportunities in specialty restaurant or entertainment niche markets.

Lowline Angus was developed in Australia as a research

project designed to select for profitable traits in Angus. Like Angus, Lowline are black and polled but much smaller. According to the Australian Lowline Cattle Association (<http://lowline.une.edu.au>), 54 market-ready Lowlines can be produced on the same acreage that would produce just 33 market-ready, full-sized animals.

Many restaurants cater to clientele who desire a quality eating experience but in a smaller portion size. Since Lowline are smaller, it is possible to have a thick-cut, 6-ounce fillet. According to Gene Kantack of Mini-Cows West in Idaho Falls, Idaho, Lowline also have the benefit of a greater portion of high-dollar cuts. This is because their backs, where the high-priced cuts come from, are nearly as long as full-size cattle. For more information on Lowline, visit the Mini-Cows West Web page at www.minicowswest.com or

the Effertz EZ Ranch Web page at www.loala.com.

Producers who would like to enter the entertainment business niche market may want to consider raising bucking bulls. Many of today's top bucking bulls are not accidents but bred specifically for their sport. American Bucking Bull Inc. (ABBI) is a registry devoted solely to bucking bulls and has experienced significant growth. This growth is



Butler's Gone Dinero is a son of Dan Russell's Copenhagen Lite



Lowline Angus cattle in a pasture.

being fueled by the increase in popularity of bucking bull events such as the Professional Bull Riders Inc. (PBR), series. At the 2005 ABBI World Finals Bucking Bull Sale, the first embryo in the auction sold for more than \$30,000.

Temperament is a consideration in raising rodeo cattle. Bucking bulls often inherit an ornery demeanor from their parents. Bill Butler, owner of Bighorn Rodeo Ranch near Basin, says, "It takes a different kind of person to raise rodeo cattle. You can't raise them in your backyard like

you can llamas or ostriches. You need some room, preferably a farm or ranch with a good set of corrals, a squeeze chute, sheds, pasture, etc."

For more information on raising bucking bulls, visit the ABBI Web page at www.abbinow.com or the BigHorn Rodeo Ranch Web page at www.bighornrodeoranch.com.

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Smart practices can reduce predator problems on state's small acreages



By Ron Cunningham

One of the many challenges facing new-to-the-land owners or those living on small acreages is that of implementing sound management practices to protect their animals.

One of the most challenging is protecting those animals from predators that can be abundant in rural areas, such as coyotes, foxes, and uncontrolled domestic

dogs, and not-so-frequent visitors including bobcats, grizzly bears, wolves, and mountain lions.

There are practices that can reduce the chances of attacks by predators:

- Always dispose of dead animals at an accepted landfill so as to not attract predators.
- When possible, house animals in corrals at night where they will be under closer watch. Fencing, buildings, and security lights offer more protection than open pastures.
- Fencing perimeter fences around grazing and loafing pastures with high, woven wire. Extra barb wires on the top add extra protection. Install the top wire close to the woven wire to keep an animal from jumping and getting its feet caught in the wire. Properly maintained fences always add extra protection.

Guard dogs have even higher success in protecting sheep as a general rule. These dogs must be properly bonded with the sheep they are to protect. Komondors are sometimes extremely protective of family members and the sheep, Great Pyrenees tend to roam away during parts of the day, and Akbash generally tend to have an even temperament. No matter which guard

dog chosen, almost any is better than nothing.

- Donkeys and llamas have shown they can be valuable guard animals.

There are options if attacks continue.

- If domestic dogs are a problem, call the owner first. If the situation cannot be resolved, call a local sheriff's office each time there is a problem with dogs.

If coyotes are a problem, call a county trapper. Local county trappers can many times assist with solving predator problems. Landowners can call their local University of Wyoming Cooperative Extension Service office (UW CES) (www.uwyo.edu/UWces/Counties.asp) or a county commissioner (<http://www.wyo-wcca.org/members.htm>) to obtain the name of a local trapper.

If endangered species such as grizzlies and wolves are a problem, homeowners should contact the U.S. Fish and Wildlife Service or Wyoming Game and Fish Department. Landowners can also call a local UW CES office or county commissioner to assist with any predator problems.

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Curl-leaf mountain mahogany

Search world for plants but some gems exist in

By Tom Heald

Five years of intense drought in the state has been a blessing in disguise for the Wyoming gardener!

There is much renewed interest by the horticulture industry in discovering and bringing beautiful native and adapted plant materials to market that fit Wyoming conditions. One can literally buy plants that have been cultivated from the globe's most extreme environments – from the high elevations of Chile, China, South America, and Afghanistan to the ancient ruins of Greece.

But there is another extreme environment – Wyoming,

where some outstanding plants are making their way to market. In 2005, I had the chance to explore Wyoming's rugged environment to investigate the state's native trees and shrubs for their landscape potential, and what I found excited me! Call them true Wyoming survivors, but I prefer to call them beautiful ornamentals! Many people might not be familiar with these species. Here is but a taste!

Curl-leaf mountain mahogany (*Cercocarpus ledifolius*). Found throughout the foothill country of the Big Horns and other Wyoming mountains on limestone outcrops, this broad-leaf, deciduous shrub is as rugged and long living as almost any plant in the world. It has an upright habit with dark green, leathery leaves with edges curling under – giving its name! Most winters, the leaves will stay green, which adds seasonal interest. Specimens found on the southern slopes of the Big Horns are estimated to be at least 2,000 years old or older! Once established, this plant may never need watering again! It's slow growing, but one can purchase these plants that are about 2 feet tall and within 10 years should easily be



Close up of skunkbush sumac

4 to 6 feet tall. Full sun. Height: 8 – 20 feet. May take centuries for mature height and width to be achieved! Width: 6 – 10 feet.

Bigtooth maple (*Acer grandidentatum*). An outstanding native considered a small tree with up to five-lobed, dark-

green leaves turning shades of yellow, orange, and red in autumn. Ecologists have theorized this maple and the sugar maple of the northeastern United States are essentially the same tree but developed separately as ice ages came and went. It is found along Wyoming's western edge. Some have called it "mountain maple," but the great thing about this tree is that it can tolerate the state's mostly alkaline soils and survive periods of drought once established. After establishment, an occasional deep watering is all that is needed to keep it looking great. This is one of the best-kept secrets in the horticulture industry!

Full sun to partial shade. Height: 20 – 25 feet. Mature height within 15 years, if watered more frequently. Width: 15 – 20 feet.



Bigtooth maple

Utah serviceberry (*Amelanchier utahensis*). Found in the high desert prairie in southern Wyoming where wind and the elements are as severe as anyplace, and they look great! This is a very dense deciduous shrub with leaves that have a woolly gray-green appearance – which is quite pleasing to the eye. In autumn, its color is a golden yellow. In spring, the whole plant will be covered with a mass of white flowers followed by edible bluish-black fruit in summer. It's a great windbreak specimen!

Full sun. Height: 6 – 12 feet. Mature height within 15 years. Width: 6 – 8 feet. An occasional deep watering af-



Curl-leaf mountain mahogany



Skunkbush sumac



Establishing native TREES and SHRUBS

our own backyard

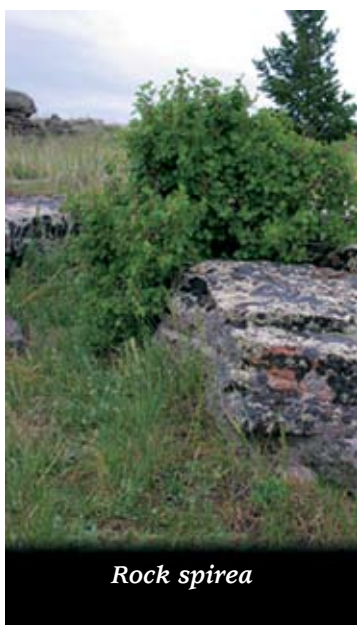
ter establishment is all that is needed.

Three-leaf sumac (*Rhus trilobata*). Found throughout Wyoming's prairies and open slopes of mountains. Also known as skunkbush sumac, it is a very rugged deciduous shrub with multiple stems that have an "oak-like" leaf that turns a brilliant red to orange in autumn. This shrub basks in full sun, and wind is not even an issue. It's tolerant of most soils – except wet ones! Consistent watering via a traditional sprinkler system will give you a much larger plant.

Full sun. Height: 3 – 6 feet. Mature height within 10 years. Width: 4 – 7 feet.

Rock spirea (*Holodiscus dumosa*). A compact shrub found in the crevices of rocks and gravelly soil in foothills of our mountains. Beautiful white-to-pink flowers adorn the plant in June. In autumn, the flowers dry to a russet color, and the foliage turns reddish. When the leaves are crushed, they emit a provocative, spicy fragrance. It's not picky about soil type except wet ones! Good drainage is absolutely necessary.

Full sun. Height: 2 – 4 feet. Width: 2 – 4 feet.



Rock spirea

If these plants interest you, see a local nursery representative and not one of the large retail outlets as these plants are unique to Wyoming. Each plant listed is available in the trade and will add to your western landscape!

Tom Heald is a University of Wyoming Cooperative Extension Service educator for Converse, Natrona, and Niobrara counties and can be reached at (307) 235-9400 or theald@natronacounty-wy.gov.

By Tom Heald

Gardeners hear the term "establishment," but what does it mean?

Establishment is the time when a plant is spreading its root system and becoming balanced in the ability of its foliage and roots to support each other.

Commercially sold plants are typically grown in containers. A one-gallon, container-grown plant will take about a year to establish. Shrubs in a 3- to 5-gallon container will need about two years to become established. Container-grown trees follow the establishment rule of thumb of one year for transplanting and an additional year for each inch of trunk diameter.

Care is needed to develop the root system during the critical time of establishment. Even though these plants may have excellent drought-tolerant strategies, they have been grown in artificial potting soil and should be watered as one would any other plant. This means one will need to water two to three times a week during establishment. These waterings should be three good soakings a week in hot weather and as little as once a week in more moderate conditions.

Roots don't grow into dry ground, so water both the potting soil and surrounding ground. Don't leave the plant sitting in a hole full of water surrounded by slow-to-drain clay! Plants can and do drown! Poke a finger in the ground to check for moisture in both the potting soil and surrounding ground to determine if the plant needs water.

Lastly, don't forget to winter water. Water evergreens once a month to establish during dry, open winters. Water deciduous trees and shrubs once or twice in winter.

Most native plants don't absorb water through their leaves. Landowners should not spray the leaves but focus on watering the roots. This is where water uptake occurs.

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Firewise landscaping can help reduce fire threat for small-acreage owners

By Donna Cuin

One hazard rural residents face is the potential of wildfires burning not only forested lands but prairie lands.

Wildfires not only can attack the land but can impact the home and buildings around a homestead. A great way to minimize or prevent damage from occurring or destroying property is to incorporate Firewise plantings around a home and outbuildings.

With recent years of drought and a focus on homeland security issues, many communities are putting more emphasis on preventing potential hazards or developing methods of minimizing damage from potential disasters. There is more home construction in the urban-wildland interface areas in the last 10 years, and more Wyomingites are venturing out into life in the country.

There is more information now available to citizens on Firewise plantings and defensible space planning. Whether a home is in the forest or on the high plains, there are landscape-design concepts that can help ensure a home survives a fire.

Plant selection is an important step in successful Firewise protection for a location. Since there are no fireproof plants, landowners will want fire-resistant plants near their main home and buildings. Plants that help in slowing down or stopping a fire have

high moisture content and have a low content of volatile sap or resin.

Plants that are short and grow close to the ground are recommended for planting close to buildings. Choose plants that grow slowly and need little or no frequent pruning or maintenance and that do not accumulate large amounts of combustible dead branches, leaves, or needles.

The inner zone of defensible space is called zone 1 (see illustration) and should be at least 30 feet from surrounding buildings.

Zone 2 is the next 40 feet of space surrounding zone 1, and zone 3 is the outermost space – usually 70 to 100 feet from structures.

The plants suggested here will help in any of the three zones of defensible space, but the focus will be on the area closest to structure – right around the home – zone 1.

There are many native plants that help slow fire advancement, and some residents may want to focus on creating a native-looking or Wyoming feeling in their landscapes.

Others may be more comfortable using traditional horticultural plantings for which there are many well-suited, non-native plants available.

With a focus on short plants with little or no pruning, the best suggestions for zone 1 will be ground covers and flowering plants.

No matter where in the state, landowners can check with local fire districts, local Wyoming State Forestry Division offices (<http://slf-web.state.wy.us/forestry.aspx>) or local University of Wyoming Cooperative Extension Ser-

vice offices (www.uwyo.edu/UWces/Counties.asp) for resources to develop a defensible space for a home site.

For more information of defensible spaces and Firewise planning, see the Firewise Web

site at: www.firewise.org.

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NATIVE PLANTS

Aster	Beebalm	Blanket flower
Columbine	Delphinium	Dotted gayfeather
Monkshood	Native iris	Northern bedstraw
Pearly everlasting	Prairie coneflower	Prairie smoke
Pussytoes	Scarlet gilia	Sulphur flower
Western wallflower	Wild blue flax	Yarrow

NON-NATIVE PLANTS

Black-eyed Susan	Common harebell	Coral-bells
Creeping grape holly	Daffodil	Hardy geranium
Hyacinth	Ice plant	Iris
Jacob's ladder	Lupine	Monkey flower
Pink	Primrose	Sedum
Skullcap	Sunflower	Tulip



If you fence it, they'll stay out

Fencing out stock in Wyoming



By Cole Ehmke

A common and contentious issue for rural landowners involves disputes concerning trespassing livestock.

Wyoming is a "fence out" state for cattle, meaning landowners who prefer not to have livestock on their property are responsible for fencing them out. Traditionally, this is due to the large proportion of open range in the state. While Wyoming is a "fence out" state for cattle (and domesticated buffalo), it is a "fence in" state for sheep, which are typically under the supervision of a herder.

So, if your neighbor's stock wanders into your unfenced private property, the livestock owner faces no criminal penalties and is not liable for damages. But if there is what is known as a "lawful fence" separating the properties, the landowner can recover actual damages through civil action in a local court or through arbitration.

What is a lawful fence? Lawful fences are outlined in Wyoming statutes. Generally, they are fences constructed well enough to keep out livestock. A three-line barbed wire fence is typical. Other fences are acceptable, such as pole or board fences. A variation is to have a board for the top line of a three-wire fence (so horses, whose hides are thinner than those of cattle, are less likely to be injured) or a fence with wire netting (for animals such as sheep or goats).

What do I do when livestock stray onto my fenced land? The landowner should

contact the rancher. If you know the rancher, call him or her about the problem. They'll likely take care of it quickly and work to prevent a recurrence. If you don't know who owns the livestock, make a call to the Wyoming Livestock Board at (307) 777-7515 with a description of the animals, their brands, and the location of the brand on the animal. They may be able to identify the owner. If you take custody of the animals, the livestock owner may be required to pay for their care.

What do I do when livestock stray onto my unfenced land? If you do not have a properly constructed fence and a neighbor's bull wanders onto your property and takes out everything in his path, then you have no recourse against the neighbor or the bull.

To avoid the situation of a neighbor's stock in your garden, fields, pasture, and so on, fence rural property. Cooperating with a neighboring livestock owner to construct

an effective fence to separate the properties – a partition fence – will likely save a lot of trouble. Because both owners will benefit, Wyoming law states that costs for building and maintaining partition fences may be split 50-50.

What if I want a fence and my neighbor doesn't? Wyoming law allows you to sue for half of the actual costs of constructing (and maintaining) a partition fence.

What if damage was caused, but the offending party refuses to compensate? As in most conflicts, first strive for a mutual agreement. But, if no agreement can be reached, it may be necessary to take the dispute to a higher level. In Wyoming, this could be either the courts or arbitration. One way to reach resolution is through mediation overseen by the Wyoming Agriculture and Natural Resource Mediation Program, which can be reached at (307) 777-8788 or toll free at (888) 996-9278.



Avoiding fence disputes in the first place is easiest. Meet your adjoining landowners to establish communication.

It is also a very good idea to gain a general understanding of the Wyoming rules involving fence building and maintenance.

The law regarding fencing is here: <http://legisweb.state.wy.us/statutes/titles/title11/chapter28.htm>

A history of Wyoming fence law is here: <http://wlsb.state.wy.us/Law%20Enforcement/fencelaw.htm>

Keep those gates closed! It is a misdemeanor to leave the gate on a lawful fence open, no matter if it was by accident. There is a fine of \$100.

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Natural resource experts lend expertise to small acreage owners in *Barnyards & Backyards* magazine

Wyoming landowners grappling with land, plant, and animal issues can receive help and inspiration from Wyoming natural resource experts and other landowners in the quarterly magazine *Barnyards & Backyards: Rural Living in Wyoming*.

This magazine is a separate effort than the publication you are now reading. Although both are produced in part by the University of Wyoming Cooperative Extension Service (UW CES), the magazine is a full-color, quarterly publication targeted at rural living enthusiasts in Wyoming.

Barnyards & Backyards is the new premier publication on practical approaches to make life in rural Wyoming more enjoyable, said Dallas Mount, a UW CES educator in Platte County who heads the Small Acreage Issue Team, which directs the magazine.

Each issue contains practical information on land management topics and also features landowners who relate the problems they have faced in Wyoming's challenging environment and the strategies used to overcome them.

The magazine, which began publication in spring 2005, is available now at most Wyoming conservation district and UW CES offices and by subscription. Membership of the Small Acreage Issue Team uniquely crosses local, county, state, and federal agency boundaries to meet small acreage landowner needs.

The number of subscriptions has steadily increased since its inception. "The popularity of this magazine speaks for itself," said Mount. "This information is from people who know about the

challenges of rural living in Wyoming and have quality information to share without any bias."

The spring 2006 edition offers stories about corralling weeds on a small acreage, using portable fencing for sustainable grazing, testing the health of the soil, tips for raising chickens on a small acreage, growing garden fresh vegetables in Wyoming, and an article about featured landowners Dennis and Lucile Taylor, who live near Le Prele Reservoir southwest of Douglas.

The winter 2006 issue has articles with information about the correct way to plan a windbreak to protect homes, making the most of compost for gardens and flower beds, tips to launching a new business, helping horses cope with cold, helping cut high energy bills, registering a brand, and

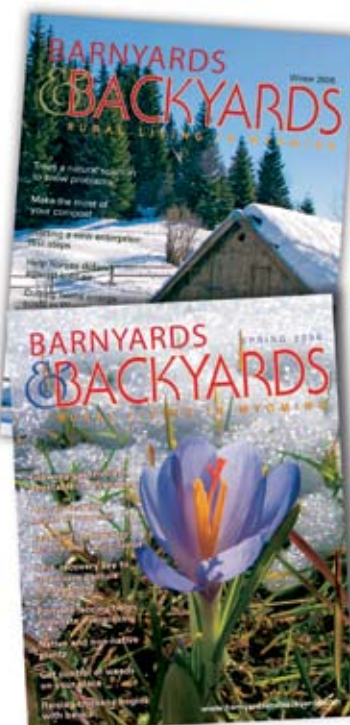
featured landowner June Akers of Wheatland.

The Small Acreage Issue Team is a cooperative team of the UW CES, Wyoming Association of Conservation Districts, Historic Trails Resource Con-

servation and Development Council, federal Natural Resources Conservation Service, the Wyoming Private Grazing Lands Team, and the Wyoming State Forestry Division.

It developed the publication, which is part of a larger effort to serve the land-resource management needs of small acreage and other landowners in Wyoming. This larger effort is funded in part by the Wyoming Department of Environmental Quality, the Wyoming Private Grazing Lands Team, and project partners.

Sample issues and subscription information can be accessed at the magazine's Web site <http://barnyardsandbackyards.com/> or by visiting a local conservation district or CES office to obtain a copy. Forms for purchasing back issues can also be found on the site.





Insurance available for alternative ag operations

By James Sedman and John Hewlett

When one thinks of Wyoming production agriculture, images of cattle ranches, wheat fields, and irrigated farms come to mind.

Although nursery crops and alternative agriculture are not typically thought of, they represent a growing niche in Wyoming's agricultural economy. Greenhouses selling plants or "pick your own" produce, tree farms, grape vineyards, or wineries are a growing segment of the state's agriculture.

While the products may differ from more traditional Wyoming operations, these businesses face many of the same production risks. Production and market risks in more traditional Wyoming crop and livestock operations can be addressed using U.S. Department of Agriculture (USDA) Federal Crop Insurance Corporation programs. Nursery and some alternative crops have options for crop insurance as well, although they are underutilized. Wyoming reported only \$258,000 of nursery crops insured in 2004. Because insurance is available, producers should look to these relatively inex-

pensive management options to reduce production risks.

Nursery Crop Insurance

Federal Crop Insurance Corporation policies are available for Wyoming nursery crop producers. For a complete list of plants covered, consult a local crop insurance agent. Nursery policies are similar to multi-peril crop insurance policies. Producers may insure standard nursery containers or field-grown (in ground) plants. To do so, a producer submits a plant inventory value report for each insured practice, along with two copies of the most recent wholesale catalogue or price list to the insurance agent. In addition, documentation is needed for the current value of plant inventory by basic unit and all growing locations, inventory size, and container specifications. Producers then choose a coverage level, share, and price election, which determine the insurable value. The nursery policy provides for coverage of up to 75 percent of the nursery inventory value report. Indemnities are paid when either the value of the crop is affected or the total amount of production drops below the pre-set indemnity level.

Nursery operators may also choose a catastrophic insurance coverage endorsement for losses greater than 50 percent of expected production and a 55-percent price election for a minimal cost. Operators might also consider a peak inventory endorsement, which allows growers to pay per month for extra inventory not included in the original policy. Growers simply report the number and value of the extra inventory for the month in which it occurs and pay for the endorsement per month.

Operators may also elect a rehabilitation endorsement, which assists producers with the cost of rehabilitating damaged plants. Payment is limited to labor and material costs for pruning and setup.

Options for Other Alternative Agricultural Enterprises

Simply growing a new or alternative crop is a substantial risk. While growers may be seeking increased returns over more conventional crops, they may not wish to take on all the risks involved with investing in an unknown enterprise.

Growers in this situation may want to consider crop

insurance – an established risk-management option. Depending on the location and type of crop grown, growers may have crop-specific insurance policies available.

If the crop grown does not qualify as a nursery crop, as outlined above, other options exist. Specific yield-based policies are also available for some alternative crops. A grower interested in this type of coverage should consult a crop insurance agent about availability for a specific crop.

In cases where these two types of insurance do not apply, an additional three strategies can be considered: self-insurance, non-insured crop disaster assistance program (NAP), or actuarial change, which is essentially requesting the USDA Risk Management Agency to consider insuring a particular crop grown in a specific area.

Self-insuring may be the least feasible, depending on the situation of the operation. Chances are if an operation really requires some type of insurance coverage for business survival, its cash flow will not be sufficient to allow for self-insurance.

NAP coverage may be a good fit for many operations

as it insures crops through the USDA Farm Service Agency (FSB) not otherwise insurable by crop insurance. NAP coverage works much like a catastrophic endorsement; it covers losses in excess of 50 percent for \$100 per crop per county. Growers simply sign up for their production period with their expected acreage or inventory, and the expected value and anticipated harvest date.

For More Information

To learn if a specific crop qualifies for a federal crop insurance program or to enroll a nursery crop, contact a local crop insurance agent. They should be able to assist in crafting a sound risk-management plan that fits the needs of the operation.

For more information on the NAP program, consult a local FSA office. For more information on this and other risk-management topics on the Web, visit the Western Risk Management Library at <http://agecon.uwyo.edu/riskmgt>.

James Sedman is a consultant to the University of Wyoming Department of Agricultural and Applied Economics, and John Hewlett is a farm and ranch management specialist in the department.

Discovering the green in Wyoming

The University of Wyoming Cooperative Extension Service (UW CES) is preparing to conduct a survey of the state's green industry operators.

In 2002, a total of 64 nursery, greenhouse, and other green industry operations were in business across the state.

In total these enterprises used 877 acres for "in-the-open" activities and 261,899 square feet of "under-glass-or-other-protection" activities statewide. These numbers have increased dramatically in recent years, as in 1997 there

were too few operators to report in the Census of Agriculture.

To better serve this developing industry, UW CES personnel are developing a survey to learn who these operators are, where they are located, what types of enterprises they run, and who they serve. This is a chance, if you are a Wyoming horticultural "green industry" business, to document the importance of this industry!

The survey to document the extent of the green industries in Wyoming

will be conducted this summer. Karen Panter, extension horticulture specialist, and John Hewlett, extension farm and ranch management specialist, collaborators on the project, are looking for the following types of business to help with the survey: landscape/turf maintenance, arborists, golf course management and maintenance, wholesale and retail nurseries, wholesale and retail greenhouses, garden centers, florists, interior "plantscaping," landscape design/landscape architecture, sod

producer, vegetable producer, field cut flower producer, small fruits/tree fruit producer, grape growers, or any other horticultural business entity.

Your participation in this survey is highly encouraged. To make sure you are on the list to participate, please contact us soon. Karen Panter can be reached at kpanter@uwyo.edu or (307) 766-5117, and John Hewlett can be contacted at hewlett@uwyo.edu or (307) 766-2166.