



The Reverchon Naturalist

Recognizing the work of French botanist Julien Reverchon, who began collecting throughout the North Central Texas area in 1876, and all the botanists/naturalists who have followed ...

USING YOUR SENSES

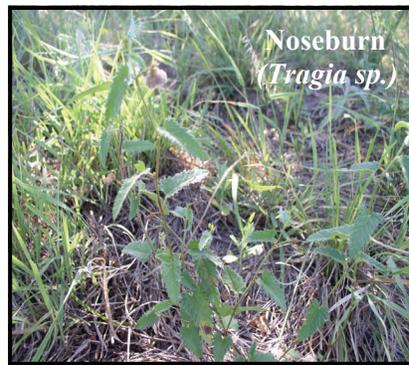
Story and Photos by Tyson Hart
NRCS Soil Conservationist

Plant identification is a passion shared by many. No greater feeling exists than keying out a plant for 30 minutes, and finally confirming a new personal discovery. When using a key, most characteristics are based upon ocular observations. Common features include compound or simple leaves, yellow or red flowers, and radial or bilateral symmetry just to name a few.

Too often the others senses are left forgotten, so touching plants ranks second for identification. A quick slide of your fingers down a Texas wintergrass (*Nassella leucotricha*) leaf blade feels like sandpaper. Also, Noseburn (*Tragia sp.*) may not burn the nose, but the leaves burn and sting exposed skin when touched. Bitter sneezeweed (*Helenium amarum*) can quickly be identified from common sneezeweed (*Helenium autumnale*) by rubbing a portion on the forearm (bitter burns). Plus, prickly-ash (*Zanthoxylum hirsutum*) can give rise to a tingling sensation when placed between cheek and gum.

As well, the aromas plants produce are an easy way to identify your plants. When having trouble deciding between Louisiana sagewort, right inset photo, (*Artemisia ludoviciana*) and Western ragweed, left inset photo, (*Ambrosia psilostachya*) crush the leaves and have a sniff. The sagewort has an instantly recognizable odor, which is very different from ragweed. The crushed leaves of skunkbush sumac (*Rhus trilobata*) can leave a foul fragrance, and most plants in the mint family (Lamiaceae) are refreshing to smell.

Moreover, using taste to identify plants is often overlooked. A recent lick of white tridens (*Tridens albens*) and a bite of wood sorrel (*Oxalis sp.*) left a sour taste. To cure the sourness, putting Whorled dropseed



Noseburn
(*Tragia sp.*)

(*Sporobolus pyramidatus*) on the tongue quickly provided a salty snack. For desert, a sip from a honey-suckle (*Lonicera sp.*) did the trick. Use caution though, a poi-

son ivy (*Toxicodendron radicans*) popsicle was never developed for a reason.

A challenge arises when using sounds to distinguish plant species. For me, conjuring up memories of walking past white pricklypoppy (*Argemone albiflora*) in the winter present quite a scare. When the seed pods dry in the winter, carelessly brushing against a plant can cause a whipping action imitating the unmistakable rattling of a feared snake. Overall, while sight will always be the most common identifier, using all the senses will enhance your identification skills, especially in the field.



Western ragweed
(*Ambrosia psilostachya*)

Louisiana sagewort
(*Artemisia ludoviciana*)

See You Down the Road

By Ricky Linex
NRCS Wildlife Biologist

August is usually the month when forbs and grasses begin browning out from long, hot and dry weather. This year is rather unusual in that much of north-central Texas is still green during August. Over the past few weeks, I have traveled from Vernon to Belton and Anson to Forney. North, south, east and west, everywhere you look there is still green vegetation in the pastures and roadsides. Forage for livestock and wildlife is still actively growing. This forage is producing good growth in antlers, and hopefully a good quail crop. There is an old saying that when you have a good broomweed year, you will have a good quail year. We can hope this will come true in 2010 as it has in the past.

Another benefit from all of this green vegetation is an over abundance of grasshoppers this summer. Kimberly Burr has an interesting article describing these different hoppers. Though these insects are severely browsing on some woody vegetation, the abundance of hoppers is of great value as a food source for quail chicks and turkey poults. This extended period of active growth makes it a great time to get out and walk the pastures. Of course, it is more enjoyable either early or late in the day. Although the rainfall makes the vegetation appear to be in early-summer growth, the daily temperatures remind us we are in the dog days of summer.

Grasshoppers In Texas

Story and Photos by Kimberly A. Burr
NRCS Soil Conservationist

Rangelands here in Texas are a valuable resource for landowners not only in the production of livestock, but in wildlife and recreation management as well. The grasshopper is a natural component of the rangeland ecosystem. However, the grasshopper can be a significant threat to the health and productivity of rangelands during population outbreaks.

Typically, outbreaks occur after a few years with hot and dry summer and fall seasons. These conditions allow adult grasshoppers to survive and lay eggs for the next years hatch as well as increase egg and nymph survival. Humid conditions encourage the pathogens that help to keep grasshopper populations under control and have the potential to limit outbreaks.

Different grasshopper species thrive in varying land use situations. Some species prefer cropland communities over rangelands while others prefer forbs over grasses. Studies also indicate that diverse plant communities support diverse grasshopper populations. Ultimately, once grasshoppers have eaten the grass and weeds in a community, trees will then be consumed.



Moreover, it may be surprising to learn that just seven grasshoppers per square yard can consume the equivalent forage that a 1,000 pound cow with calf can consume. It is vital to know when additional control methods are warranted and economical. Plus, Texas AgriLife Extension Service indicates that as few as eight grasshoppers per square yard threaten the resource at hand, and insecticides can be applied if control is determined necessary. However, management decisions, such as grazing and habitat management practices, can be utilized to help avoid possible outbreaks.

Realistically, control of grasshopper populations is difficult. Eradication is unrealistic and not advised. Being prepared for outbreaks and implementation of well thought out management practices are a landowner's best defense. For a comprehensive look at grasshoppers and excellent resource tools in the management of the pests, go to <http://www.sidney.ars.usda.gov/grasshopper/index.htm>.



Fiendish Fern Floats

Across Texas

Story and Photos by Gary Valentine

Retired NRCS Texas State Wildlife Biologist

Do you know this plant? That was the question from Ron Jones, a U.S. Fish and Wildlife Service (USFWS) biologist from the Houston area back in April 1999. We had just finished collaborating on a plan for a Wildlife Habitat Improvement Program contract in Austin County.

After several seconds of examination, my reply was, "I don't think so, but let me make some mental notes, and I'll see what I can do when I get back to the office and my references. Where did you find it?" Ron said it was brought into his office from an outdoor classroom in Clear Lake.

A review of pictorial and botanical keys led me to giant salvinia (*Salvinia molesta*), a free-floating water fern that had not been reported from Texas. A close relative, common salvinia (*Salvinia minima*), was well established in Texas, but Ron's plant **was not** common salvinia.

The floating leaves (fronds) were much larger (quarter to half dollar in size), and the many hairs that cover the fronds had complex tips that looked like egg beater blades. While floating leaves of common salvinia are smaller than a dime with hairs that may be split-tipped, but the tips remain flared and are not joined into an egg beater blade tips. Both species have

submerged leaves that give the appearance of roots dangling in the water

A phone call to Larry Hartmann, a fisheries biologist with the Texas Parks and Wildlife Department's (TPWD) aquatic vegetation management program, confirmed that the plant had not been reported from Texas. Larry promised to visit the pond in Clear Lake to render a second opinion. So, I hooked him up with Ron, and a few days later, Larry called to say that the mystery plant appeared to be giant salvinia. If so, Texas had a big problem. Larry and his cohort, Randy Helton, were already working to confirm the identification.

Both species can proliferate into thick mats of floating vegetation that can cover large areas of water, killing desirable and submerged vegetation while reducing concentrations of dissolved oxygen, and smothering animal life. But as Larry, Randy and Ron contacted the experts to confirm our identification, they learned that giant salvinia was much more damaging to aquatic ecosystems than its smaller relative. Horror stories came from throughout the world although the plant's country of origin is Brazil.

Later in 1999, after the identification was confirmed, a meeting was convened in Houston with agency and NGO representatives, who came from states along the Gulf Coast, the District of Columbia, Mexico, and Australia. For three days attendees discussed ways to stop the further spread of giant salvinia.

Herbicides registered for aquatic use, both singly and in combination, were certainly discussed. While this was the obvious method of control, limited experience had demonstrated that the numerous hairs covering surfaces of salvinia fronds reduced the effectiveness of both contact and systemic herbicides.

The salvinia weevil (*Cyrtobagous salviniae*) had successfully controlled salvinia in other parts of the world, and Florida had begun the process of receiving federal approval to establish populations with their infestations. Representatives from Louisiana and Texas agreed to work with Floridians and bureaucrats from our nation's capital to expedite the release of the weevils into their respective states.

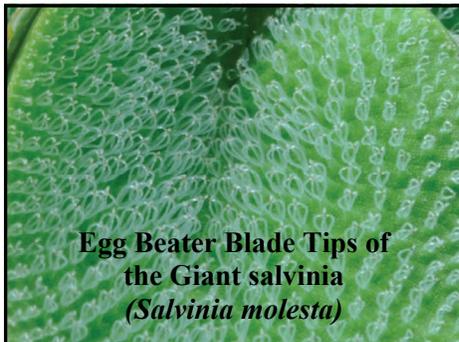


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(Continued from page 3) Fiendish Fern Floats Across Texas

My thoughts during the conference were that a cold winter spell would go a long way in combatting the giant salvinia invasion. Dr. Michael Smart and his colleagues, who are at the U.S. Army Corps of Engineer's environmental laboratory at Lake Lewisville located just north of Dallas, have subsequently conducted experimental studies on the effects of cold water temperatures on this plant. Their findings suggest that an extended cold spell, similar to the one we experienced in 1983-84, will be required to have a truly killing effect.

Well, what has happened during the past ten years? My hope of "nipping it in the bud" back in 1999 did not happen. Giant salvinia has been reported as far north as Denton County and as far west as Jackson County, including several of the public reservoirs in east Texas. While the original infestations in Texas probably came from castoffs within the water garden and aquarium trade, the movement between water bodies on boats and their trailers is usually blamed for further dispersal. Plus, while most of the reports have come from public waters, it's reasonable to expect infestations in private waters as well.



Egg Beater Blade Tips of the Giant salvinia (*Salvinia molesta*)

Accurate identification of a plant pest is the first step in its control. Remember these physical attributes of giant

salvinia. It's a free-floating plant, surface leaves (fronds) that range in size from a quarter to half dollar, central midrib that gives each leaf a folded inward aspect, and leaf hairs with tips shaped like egg beater blades. You may be able to see them with your naked eye, and if not, a hand lens with low magnification will do the trick.

If you're fishing, make sure your boat, trailer and other equipment are free of hitchhikers before leaving the water. Inform the owner of the water body of your findings and encourage them to notify the proper authorities, including TPWD, USFWS, and APHIS (Animal Plant and Health Inspection Service).

Working cooperatively to turn back this South American fiend is much preferred over another winter like we endured in 1983-84.

NRCS is currently working with the newly developed Center for Invasive Species located in the Texas Water Resources Institute at College Station to effectively control Giant salvinia.

Botanical Glossary Six Pack

Introducing a few descriptive words needed to understand plant talk

Root Variations – with examples of plants having that root variation:

Corm: Bulb-like subterranean stem base, solid instead of with layers of modified leaves like in a true bulb. (*Dotted gayfeather*)

Fibrous Root: One with several roots about equal in size and arising from about the same place, contrasting with tap root. (*Juncus, Frogfruit*)

Fleshy Root: Succulent, juicy, or pulpy. (*Spiderwort, Dayflower*)

Tap Root: The primary descending root giving off small laterals but not dividing; the one dominant root markedly larger than the others. (*Cocklebur, Yellow Texas star*)

Tuber: Modified underground stem; stem enlarged and subterranean with nodes, buds and scale leaves, often serving to store food. (*Buffalo gourd, Indian rushpea*)

Woody Root: Thickened root, may or may not be divided and usually showing a hard bark-like surface. (*Skeleton plant, Queen's delight, trailing ratany*)

Source: Shinnery and Mahler's Flora of North Central Texas Web site: <http://www.brit.org>

Narrow Leaf Purple Coneflower (*Echinacea angustifolia*)

Story by Znobla Wootan, Native American Seed
Photos Courtesy of Native American Seed

Many of us are familiar with the Purple Coneflower (*Echinacea purpurea*). It is the pink one in the local nurseries and found readily available by seed. It is also one that has been the most hybridized for the retail garden market. The other purple coneflower that is often overlooked is *Echinacea angustifolia*. There are nine varieties of purple coneflower altogether, but *E. angustifolia*, *E. purpurea*, and *E. pallida* are the three varieties of purple coneflower that are the medicinal powerhouses of herbal medicine. *Echinacea* is a perennial species belonging to the Aster family and are native to North America. Every North American Indian tribe that was aware of the plant knew many medicinal uses for Purple Coneflower, depending on which variety grew nearby. eating the plants, roots and all.

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The Digital Plant Press: Plant Identification in the Cyber Age

Story by Kent Mills, Nutritionist, Hi Pro Feeds
Kimberly A. Burr, NRCS Soil Conservationist
and Ricky Linex, NRCS Wildlife Biologist

Short of enrolling in a botany class or joining the local garden club what can be done to learn plant identification (plant ID)? Carrying a stack of plant ID books on the pickup seat or handing the unknown plant to a local expert used to be the common method for identification. While these methods still produce positive results, you can take advantage of modern methods such as a digital camera, flatbed scanner, or use of e-mail and Internet resources to teach yourself about plant ID.

Today, with a digital camera that fits in your shirt pocket you can take a high-quality photo of a plant, download it to your computer, and e-mail it to your plant expert so he or she can see the plant exactly as you did. As a bonus, most digital cameras come with a macro setting, which can take extreme close-up photos for capturing small details of flowers or leaves. Also, you can have an image of the plant that is easily reproduced months or years later to share with others.

The use of color scanners to produce a life-like plant image has been in use for just a few years; however, you will be amazed at the three-dimensional effect of the plant picture. So, to get the best quality in your photograph you should use medium or high-quality matte or glossy photo paper. These scanned images can be saved as a jpeg and e-mailed as a digital photo. Plus, with a scan or high-resolution digital photo, you can zoom in on the image with it showing on your monitor at a low loss of detail or image quality.

Moreover, when scanning plants for collection, remember that it can be difficult to obtain a quality image of plants with white or very small flowers. Plants with very large or bulky parts can cause problems with letting too much light into your scan.

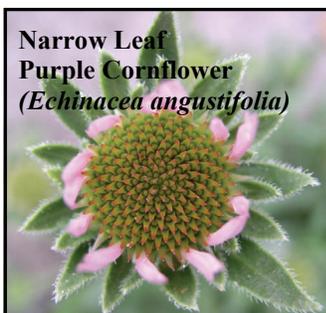
(Continued on page 6)

(Continued from page 4) Narrow Leaf Purple Cornflower

Therefore, because of this behavior, Purple Coneflower was known as elk root. Other common names used for *E. angustifolia* are Narrow-leaved Purple Coneflower, Black Sampson, Kansas Snakeroot, and Narrow-leaf Echinacea. Traditionally, this plant was used to treat everything from sore throats and coughs to snake bites and cancers. Today, it is widely used as an immune stimulant for colds and flu.

It is interesting to note that these same varieties *E. purpurea*, *E. angustifolia*, and *E. pallida* are the most sought after for ornamental plants in gardening and prairie restoration. *E. angustifolia* tolerates a wide range of conditions, including dry to moist soils, and from clay to loam to rocky or sandy soils. It is more drought tolerant than *E. purpurea*, and seems to thrive in gardens where it gets a little extra care. It is a must for any butterfly garden acting as a nectar source from May into July. Goldfinches love the mature seeds if you can resist the urge to dead head or use the flowers for arrangements.

At Native American Seed, our field of *Echinacea angustifolia* is almost ready to be harvested, and hopefully the rain from Hurricane Alex will help its development. So whether you have good luck, bad luck or no luck at all with other Echinaceas, the unique Narrow Leaf might be the Purple Coneflower for you.



"The secret of this amazing native plant's medicinal properties was revealed to the Native peoples by observing sick or wounded elk digging up and eating the plants, roots and all."



(Continued from page 5) *The Digital Plant Press: Plant Identification in the Cyber Age*

Therefore, taking pictures of these types of plants might be the better option when putting together a quality collection of plant images. Trim larger plants or fold the longer stems to fit on the scanner, set the resolution to 300 dpi, close the lid to reduce stray light, and scan.

Scanning Plant Images for Use in Other Documents:

1. Place the plant you want to scan directly onto the glass of the scanner.
2. Open the HP Director software and click on the scan document button.
3. When the scan document dialog box opens, select text & image as graphic, so that your scan will be in color and then click the scan button.
4. If you are happy with the scanned image, click the accept button. The save-as dialog box will open, and you will need to navigate to the location that you would like to save your plant images. Your C: drive is the best option.
5. Use the save as type: drop down arrow and select jpeg image. Click the save button. You now have a .jpg file that can be inserted into other documents.
6. At this point, you will need to open the document that you want to insert the plant image in, and complete the pertinent plant data you wish to include in your plant collection.
7. To insert the scanned plant image, choose insert, picture, from file and navigate to the jpeg file of the plant image and select it. Click on the insert button and move to adjust the image to fit the document you are using. You can utilize the picture toolbar for more options in changing the look of the image.
8. When you are satisfied with the document you have created for your plant collection, save the file.



Kent Mills, left, of Hi Pro Foods in Snyder, Texas, helps prepare a plant for scanning, and Kimberly A. Burr, right, NRCS Soil Conservationist, assists a Buckskin Brigade cadet while viewing a plant on the computer. (Photo Credit: Randy Henry, NRCS)



Online plant ID resources were unknown just over ten years ago. Today, there are numerous Web sites that show photos of identified grasses, forbs and woodies with several photos of each species. They highlight the entire plant, which includes a close-up of the leaves, flowers, stems, fruit, and the bark of trees.

The following Web sites are highly recommended for plant ID:

- <http://plants.usda.gov/>,
- <http://www.bio.utexas.edu/courses/bio406d/>,
- <http://uvalde.tamu.edu/herbarium/index.htm>, <http://www.noble.org/WebApps/PlantImageGallery/Index.aspx>, and
- <http://texnat.tamu.edu/plant.htm>.

In addition, there are even a couple of books on important native plants used as deer food that are available online or free by mail: *White-tailed Deer: Their Foods and Management in the Cross Timbers* by Ken Gee and Mike Porter of the Noble Foundation, and *White-tailed Deer Food Habits and Preferences in the Cross Timbers and Prairie Region of Texas* by Jim Dillard of the Texas Parks and Wildlife Department (TPWD).

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How Does Loafing Cover Benefit Quail?

Story and Photo by Ricky Linx, NRCS Wildlife Biologist

This year, August has turned into a real scorcher. August in Texas means hot weather and while humans and selected pets can enjoy air conditioning, wildlife must cope with surviving these dog days of summer. On August 9th in a location near Throckmorton, temperature measurements were taken to show the value of thermal cover for bobwhites. Between 1:30 and 2:30 p.m. the temperature was taken on bare, exposed soil and under a suitable-sized loafing cover. The bare, exposed soil surface measured 117 degrees. The ambient air temperature as measured in the shade was 102 degrees.

A loafing cover composed of dense low-growing shrubs provided an ideal hiding spot for quail during the middle of the day. The loafing cover selected was a mix of bumelia and hackberry, about eight feet in diameter and approximately 12-feet tall. The soil surface temperature in the leaf litter under the loafing cover was 95 degrees. The loafing cover was 7 degrees cooler than the air temperature and 22 degrees cooler than the bare soil surface. The exposed soil and air temperature measurement would have been even higher if taken between 4 and 5 p.m.

Review these key points from a summary entitled *On Bobwhites for Okies* taken from **On Bobwhites** by **Fred S. Guthery**, who is a professor and Bollenbach Chair in Wildlife Ecology at Oklahoma State University. The summary was prepared by the Arbuckle Mountain Area Chapter of Quail Unlimited. Check out their Web site at www.ArbuckleQU.com. The summary notes the following key Bobwhite Quail statistics:

- Normal body temp of quail is 108.7° F.
- Quail die if its body temperature rises 8° F above normal.
- Quail avoid long flight in summer and hang out in cooler habitats, and hang out in cooler cover during summer to reduce overheating.
- Tall-shaded, loafing coverts can be 7° F cooler than ambient air.
- Quail rarely loaf where there is no cover at all. So, hot day coverts can be tall wood teepees or stacked cinder blocks with lumber panels and limbs loosely covered.
- Quail can die if exposed to a consistent 104° F air temperature for 24 hours. Also, Quail can die if they leave cover on very hot day, possibly within minutes.
- Quail chicks can die in 122 seconds being left in full sun. Quail chicks are very vulnerable due to small body size.
- Quail hens have died on nests in very hot droughty days.

(Continued from page 6) Plant Identification in the Cyber Age

Visit these two Web sites at <http://www.noble.org/Ag/Research/Wildlife.htm> and http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_rp_w7000_1017.pdf, for more information about the books, both of which are valuable references.

Ask your local NRCS field office staff, Texas AgriLife Extension Service agent or TPWD personnel for a list of their favorite plant ID Web sites. In addition, another new technique if you know the name of a plant is to go into either of the search engines Google or Yahoo, click on their images button, type in the common or scientific name, and you will see a variety of images of that plant.

Good plant ID books are still the bread and butter identification resources for most experienced plant folks, but digital and cyber methods are here to stay.



NRCS Texas employees and summer students measuring temperatures under loafing cover. Pictured, left to right, are Carrie Shipp, NRCS soil conservationist in Graham; Caitlyn Cooper, NRCS student trainee in Jacksboro; Justin Trimble, NRCS range-land management specialist in Throckmorton; and Katharyn Camp, NRCS soil conservation aid in Graham. The soil thermometer is in the black frame, inset photo, and group background.

Rippers, Nibblers, Peckers and Strippers

Story by Steve Nelle, NRCS Wildlife Biologist

San Angelo, Texas

The following words describe the basic feeding habits of livestock and certain wildlife species that co-exist together on many Texas ranches. A basic knowledge of feeding habits will help landowners understand how to manage land to favor these animals.

Rippers describe the way that cattle feed on grass. Cattle require a large volume of grass each day, and their mouth and tongue are perfectly designed to gather these large amounts of forage. Cattle grasp mouthfuls of grass by wrapping their long tongues around a large clump of leaves, and then ungracefully ripping it from the plant. This method of feeding does not allow cattle to be highly selective nor does it normally provide a high quality diet but it does provide the large volumes of grass they require. Good cattle range should have enough taller grass to allow this feeding method to work. As cattle rip the leafy tops of grass plants, they leave a nice stubble of grass intact, which is needed to perpetuate the health of the grass plant and the soil. On range where the grass is short or sparse, cattle find it difficult to get their daily requirement of forage by ripping and must resort to other more aggressive means of feeding which often results in overgrazing. When cattle cannot meet their forage requirement with grasses, they may be forced to become browsers. In these situations, cattle are more likely to be in conflict with conservation objectives and some kinds of wildlife.



This heifer grazing in a pasture is a Ripper

Nibblers describe the way that deer feed. Deer require much smaller volumes of feed each day, but a much higher quality diet than cattle. They acquire this high quality feed by selectively nibbling the best and most tender twigs and leaves of forbs and shrubs. This nibbling habit allows deer to get the high protein and high energy feed they need. Deer will meticulously nibble nearly every available leaf from certain shrubs or forbs while leaving other species un-eaten. They have the instinctive ability to discern the more nutritious plants from the less nutritious ones. With this in mind, it is clear that cattle and deer have much different feeding habits and are normally very compatible together.

Sheep and goats are also nibblers. Although the feeding habits of sheep and goats are not identical to deer, they are similar in many respects. Goats and sheep nibble more on grasses than deer, but their first choice seems to be the same tender browse and forbs that deer prefer. For this reason deer do not co-exist as well with goats or sheep. Competition occurs in a pasture when the demand for desirable forbs and browse exceeds the available supply. Such competition is not only harmful to animal nutrition, but leads to the deterioration of range and habitat. When the more preferred browse and forbs are grazed down, goats and sheep can still thrive well enough on grasses. Deer cannot survive on a diet of grass and will succumb to malnutrition if browse and forbs are in short supply.



This doe with fawns feeding are Nibblers

Peckers refer to the way that quail feed. Quail are primarily seed-eaters. They generally peck seed off the ground one at a time. Quail must have at least some bare ground under and around their preferred seed bearing plants in order to find their daily meals. The plants that tend to produce the kinds of hard seed that quail eat are often referred to as weeds. Weed or forb seed such as western ragweed, croton, sunflower and pricklypoppy, snow-on-the-mountain, and bundleflower provide excellent nutrition for quail. Quail also peck the seeds of mesquite, pricklyash, bumelia, catclaw and other shrubs after they have fallen on the ground. An interesting relationship exists between cattle and quail, which enables quail to consume mesquite seed. Cattle relish the sweet, nutritious bean pods produced by mesquite. After digesting the pod, cattle then deposit the seed on the ground in cow pies for use by quail and other birds.

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Without this “processing” of the mesquite bean, quail would not be able to utilize this high protein food source. If the larger and more preferred seeds are not available, then quail will resort to pecking even very tiny seeds such as broomweed, pigweed, or prostrate spurge. Quail do not thrive as well on tiny seed since they have to expose themselves more to predators and expend large amounts of time and energy to find several thousand of such small seeds each day.

Strippers refer to the way that turkeys sometime feed. Turkey will literally strip the seeds and seedheads right off of many standing grasses. The seedheads of grasses such as sideoats grama, bristlegrass, white tridens, slim tridens, indiangrass, switchgrass and rescuegrass are sometimes

stripped clean by a hungry flock of turkeys. Turkey will also strip the seedpods from certain forbs such as wild onion, Indianmallow, bloodberry, and peavine. Turkey are also known to strip certain shrubs and trees bare of their crop of berries. Mulberry, hackberry, bumelia, sumac, wolfberry and other fruit bearing species are favorites of turkey. The red fruits of tasajillo cactus (also known as turkey pear) are also commonly eaten. Turkey are also grazers during certain times of the year. Wheat farmers can attest to the fact that a large flock of turkey can literally strip a wheat field down to bare soil.

The best way for landowners to accommodate both livestock and wildlife is to manage land for a wide variety of plant life. Good range for livestock and wildlife will have a great variety of grasses, forbs, vines, shrubs and trees. The number of livestock and deer must be managed to avoid overgrazing and overbrowsing, and regular rest periods must be provided to favor the more preferred plants. The wonderful side effects of such well managed rangeland in addition to grazing and wildlife habitat includes a good healthy water cycle, a good flow of solar energy into plant energy and a healthy and functional cycling of nutrients and minerals through the ecosystem.



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