Dealing with Freeze Damage…Again, February 3-9

Unfortunately, the last few years have brought us three rounds of major winter freeze damage and two rounds of summer heat and drought stress. Trying to determine the "cause of death" has become challenging. Our latest winter cold temperatures into the low teens and below followed a relatively mild fall and early winter. Plants do not like quick changes in temperature without time to harden off. Our low temperature in January also fell below our USDA Hardiness Zone 8b averages of 15-20 degrees Fahrenheit.

Severe cold can cause all types of problems for plants. Freezing temperatures can damage plants by rupturing plant cells as ice crystals form and rapid changes in temperatures occur. This time we didn't have a thick snow cover to insulate the plants though.

The signs of cold damage can be confusing since some damage may not be evident until months later. Leaves and tender shoots subjected to freezing temperatures appear water-soaked and wilted. These tissues will usually turn black within a few days. Tropicals such as esperanza and pride of barbados may have dead foliage and dead stems. We may have lost most of our camellia flowers and buds but hopefully not our famed azaleas. I think we also probably avoided stem damage on most of our evergreen shrubs, unlike the devastating 2021 freeze.

This type of damage occurs as a splitting of the stem or bark, typically near the base of the plant due to sudden changes in temperature. Once they become obvious, split stems and branches should be pruned to unaffected growth. Sometimes cold injury is not readily apparent until the plant starts to flower or actively grow again. At this point, cut out the dead and leave the living.

After a freeze or frost, the leaves of damaged herbaceous (annuals and perennials) plants may immediately appear wilted and water soaked. However, the freeze injury to the twigs, branches, or trunks often doesn't appear on shrubs and trees right away. Wait a few days and then use a knife or thumbnail to scrape the outer bark on young branches. Freeze-damaged areas will be brown beneath the bark; healthy tissues will be green or white.

Delay pruning until time reveals the areas that are living and dead and until the threat of additional frosts or freezes has passed (around April 1). Leaving dead limbs and foliage at the tops of plants will help protect the lower leaves and branches from nighttime radiation loss. Pruning after a freeze does not improve the outcome. Also, plants that are pruned tend to be invigorated more quickly, which may set them up for further damage in our unpredictable cycling of warm and cold temperatures.

So, do not be in a hurry to prune or remove your damaged plants. Some plants may appear dead but may not be. Corrective pruning should not be started until the full extent of the damage can be determined.

Aloe Vera Plant Showing Freeze Damage Following January Hard Freeze

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Texas Quail, February 10-16

Bobwhite quail are one of those charismatic species that is beloved by everyone from avid birders, to wildlife photographers, to hunters. The iconic Bobwhite Quail call to the

exhilarating sight of a flushing convey is a sight that is becoming uncommon to obsolete in many parts of the Bobwhite Quail range due to a variety of reasons including habitat change, development, predators, and parasites. Fortunetaly in Texas, Bobwhite Quail are still common to abundant in certain regions of the state. But did you know Texas is home to more quail species than just Bobwhite? Texas is home to 4 species of quail that each have unique characteristics and habitat requirements.

Even though most people have the visual of bobwhite quail as a grassland bird they can be found in a variety of habitats when the correct habitat structure is met. Bobwhite Quail will struggle in a pure grassland setting because they need brush or "edge" for cover and protection. Bobwhite quail adaptability to a variety of habitats can be seen in its Texas range map. The species occurs across the state except for the far western Trans Pecos desert. This includes a variety of habitats and ecoregions such as brush country, cedar breaks, short grass prairie, tall grass prairie, South Texas shrub land, and pine forest. Bobwhite Quail are most abundant in the state in the north central rolling plains, south Texas brush country, caprock escarpments in the Panhandle, and to a lesser extent the coastal tallgrass prairie. Bobwhite Quail are the most abundant species of quail in Texas.

The next most widespread and common species of quail in Texas is the Scaled Quail. Scaled Quail, or cotton top as it is sometimes called, is found in the western parts of the state and are right at home in arid locations. Unlike Bobwhite Quail which typically flush, Scaled Quail tend to run from predators or hunters. Scaled Quail are a taller and lanker bird when compared to Bobwhites. Additionally Scaled Quail can be found in large coveys upwards of 50-75 individuals where a large Bobwhite Quail covey may be 20-30 individuals at most.

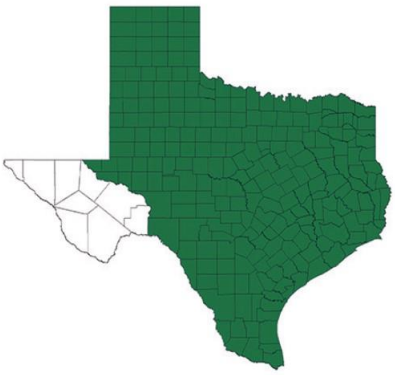
The third most common species in Texas is the Gambel's Quail. Gambel's are restricted to the desert of far western Texas. They can be found in riparian areas and arroyos along the Rio Grande River and other watersheds. Arroyos are basically dried creek beds. Gambel's range map can be misleading because they are mostly restricted to the riparian areas of the Rio Grande River and some of the large arroyos heading north into the desert. Gambel's are know to roost in the thick brush found in arroyos and are the only species of quail in Texas to roost off the ground.

Up to this point all three species can be hunted in Texas. But, our fourth and least common species of quail, the Montezuma is protected. However, you can hunt Montezuma in other southwestern states where populations are larger. Montezuma Quail is a high desert bird that can be found in the higher elevation pinyon and alpine pine forest found in the Mountains of West Texas. They are most common in the Chisos, Davis, and Guadalupe Mts. There is also a

disjunct population found in the limestone hills of southwest Texas around the Rocksprings area. Historically Montezuma Quail where more common and most likely more widespread in the hills of central Texas and the mountain ranges in the west.

Texas has a variety of natural regions from the pine forest in the east to high desert in the west. Texas quail adapted to these variety of conditions and depending on the species, quail can be found in every county in the state.

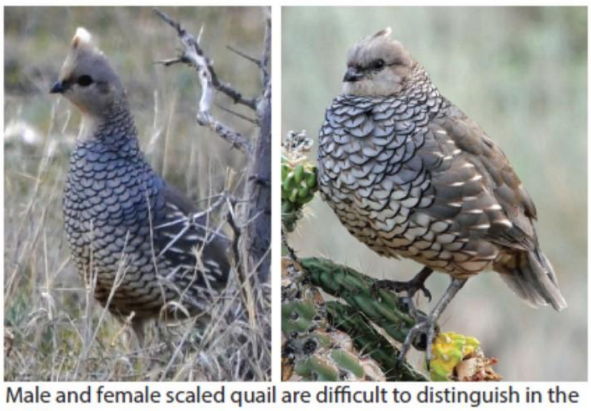
Bobwhite Quail (*Colinus virginianus*)



Male northern bobwhite. *Source: Becky Ruzicka*

Female northern bobwhite. *Source: Becky Ruzicka*

Scaled Quail (*Callipepla squamata*)



Male and female scaled quail are difficult to distinguish in the field. *Sources: Left, Becky Ruzicka; right, Greg Schechter–Flickr CC by 2.0*

Gambel's Quail (*Callipepla gambelii*)

Male Gambel's quail.
Source: JeffB–Flickr CC by 2.0

Female Gambel's quail.
Source: Matt Tillett–Flickr CC by 2.0

Montezuma Quail *(Cyrtonyx montezumae)*

Male Montezuma quail.
Source: Bettina Arigoni–Flickr CC by 2.0

Female Montezuma quail.
Source: Bettina Arigoni–Flickr CC by 2.0

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The Economics of a Backyard Garden, February 17-23

Does home gardening make sense financially? I believe it can. Last week at lunch, a good friend was telling me how much he had been enjoying all manner of fresh greens harvested each week from his small garden. Cheap, abundant, healthy greens harvested a couple times each week and plenty so share.

I know in my own garden, I can buy a cherry tomato plant for $6 and get several harvests off of it. Each harvest would be at least as much as a $3 basket of cherry tomatoes at the grocery store. Picking twice a week for a few weeks over a couple months certainly adds up.

Looking online, both Forbes and Investopedia had articles saying that growing your own produce can save you money. They cited, from the national Journal of Extension, that the

average value of produce from a home garden could be as much as $677 with costs could be kept below $300. To be honest I was pleasantly surprised.

Now, please do not think that you can go buy a large tiller and all kinds of fancy equipment and tend a small garden the size of a bedroom and make the numbers work out. As with all economic endeavors, you have to be mindful of your upfront expenses in addition to your ongoing input costs.

Last year I had the pleasure of reading a book "*The $64 Tomato*". It is a fun read as it shares how one man went to ridiculous lengths to have the perfect garden and the perfect tomato. Truthfully, one can go way overboard.

But with a raised bed and some good soil growing vegetables 12 months of the year, one could see a small, to modest financial return. I think the biggest hinderance is keeping your garden plot going year-round.

Bear in mind your input costs of seeds or transplants, soil and nutrients, all the tools, structures such as fences or cages, and the water bill that will certainly peak in the summer. They will add up over time.

If you want to drill down and get serious about saving money on your grocery bill and enjoy the outdoors, consider the following. First, grow only what you like and what you need. Even a flat of six transplants of any certain vegetable can out-produce what most households can consume. See if you can buy fewer transplants or swap with friends.

Second, consider the square-foot gardening method. This gardening system looks at each square foot as a production unit. Forget the three-foot-wide rows with lots of bare ground exposed, and interplant smaller, earlier maturing produce between longer maturing types.

Lastly, for the really frugal, start everything from seed. From a $3 package of seeds, you will have worlds of seed that you can use in successive crops to spread out the harvest, or to use half in the spring garden and the other half in a fall garden.

If you are still a little hesitant, try out growing some herbs that you really like on your back porch in a pot. The idea is to make it enjoyable and worth your time outside, in the kitchen, and in the wallet.

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Beef Cattle Breeds, February 24 – March 1

Texas heritage and ranching go hand in hand. As most people know the Texas Longhorn paved the foundation for the ranching industry in Texas going all the way back to the days when Texas was part of Mexico. Since that time numerous beef breeds are now raised in Texas, due to the introduction of new breeds, industry trends, and management techniques. Rather you are a new beef producer or are looking to expand your herd it can be quite a challenge to figure out which breed works for you. This is because there are over 250 recognized breeds in the U.S., with 80 of those being readily available to producers.

Most of the more common beef breeds originated in Europe and were brought to America. This includes Black Angus, Red Angus, Charolais, Devon, Braunvieh, Herford, Limousin, and Simmental. Black Angus are polled and can be traced to northeastern Scotland from the mid. 18th century to the early 19th century. Black Angus are known for carcass quality, maternal characteristics, calving ease, and moderate size. Red Angus can also trace their early development to Scotland but was not established as a registry in the U.S. until 1954. Red Angus has the same characteristics as Black Angus, but has additional traits of uniformity, good disposition, and an outstanding appetite. Charolais originated in France and are a large frame, white in color and are good producers of milk. Charolais where used in France for draft, milk, and meat. Charolais are very popular in the Texas cattle industry due to their large frame compared to other European cattle and ability to perform under a variety of environmental conditions. Devon originated in southwest England and where originally bred as dual-purpose cattle for both meat and milk. Devon has a long history in North America, with the first individuals reaching the continent only 131 years after Columbus. Devon is red in color, may be polled and is known for fertility, calving ease, docility, hardiness, and ability to adapt to temperature extremes. Braunvieh were imported into the U.S. from Switzerland and are various shades of brown, polled, often have a light colored dorsal stipe and have been selected for beef production and reproduction efficiency. The original Braunvieh in America were also used to establish the American Brown Swiss dairy cattle breed. The Herford breed was established in England and has been a very popular beef breed in Texas. From the late 1800's to the 1950's, the Herford was the dominate beef breed not only in Texas but the U.S. Hereford is known for two main traits, high yield of beef and efficiency of production. Limousin are golden-red cattle native to south central France and have been found in cave drawings in

these areas estimated to be 20,000 years old. The first Limousin bulls were imported to the U.S. in 1971 and become popular in Oklahoma, Texas, and South Dakota. Limousin is popular among cattleman due to tremendous carcass traits and feed efficiency. Simmental are the oldest and most widely distributed of all beef breeds in the world. They are red and white in color and are known for rapid growth development, outstanding production of milk, and large frame.

Brahman is a very popular beef breed of cattle, but unlike the above breeds originated from India form *Bos indicus* cattle. There are conflicting reports on how India cattle were introduced to the U.S., but Brahman are easily recognizable by the large hump over the shoulders, curved upwards horns, large ears, and excess skin. Brahman cattle are known for their heat tolerance and ability to thrive in adverse conditions. Because of this, Brahman have been bred with European breeds to create crossbreeds that can thrive in adverse conditions and retain carcass quality, fertility, and milk production characteristics of European breeds. Common crossbreeds found in Texas include Braford, Beefmaster, Black Brangus, Red Brangus, Santa Gertrudis, and Simbrah. One of the more unique crossbreeds developed in the U.S. is Beefalo which is 3/8 Bison and 5/8 Bovine.

Before you begin to build or expand your beef herd, you should do research on different cattle breeds. By doing so you will find a breed that best matches your growing conditions, management techniques, and production goals.

Braunvieh Cattle were used to establish the American Brown Swiss dairy cattle breed
Image from Braunvieh Association

Herford Cattle were the most popular breed in Texas during the first half of 1900's
Image from American Herford Association

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