

Texas Wintergrass – Green Grass During Winter

By Ricky Linex

Wildlife Biologist, Natural Resources Conservation Service

About this time each year we come to the end of a long winter and eagerly await the green up of warm-season grasses. Livestock have been grazing upon dormant warm-season grasses that began growth the previous April and went dormant sometime between Thanksgiving and Christmas. In most pastures there are also one or more cool-season grasses that provides limited green vegetation during these long, grey winters. In order of increasing occurrence we have these native cool-season grasses: Texas bluegrass, western wheatgrass, Virginia wildrye, Canada wildrye and Texas wintergrass. By far the most commonly seen cool-season perennial grass across all ten vegetational areas of Texas is Texas wintergrass. Sometimes called speargrass, Texas needlegrass or just wintergrass, it does provide very nutritious and palatable forage during the winter months.

Even though it is a cool-season grass and would be thought dormant during the warm season, it is commonly seen growing during summers with average to above-average rainfall. During the summer months it might seem difficult to identify without the spear-like seeds. However, if you run your fingers down the length of the leaves you can feel the sandpaper coarseness of the short stiff hairs that angle upwards on all leaves. During late winter when the “spears” appear the plant is approaching maturity and identification is easy.

The plants are densely packed with leaves that are up to ¼ inch in width, 4 to 12 inches in length, sharply pointed and rough to the touch. The seedhead has several one-seeded spikelets, each seed has a stiff and twisted awn from 2 to 5 inches in length. Beginning in mid-to-late April these spear-like seeds can be gathered and thrown like spears to stick in clothing, as all young at heart folks have done. Later in May through late June as the spears mature they begin to bend as well as twist. It is at this time that the spears become injurious to grazing animals becoming lodged in the mouth and throat of these animals. The sharp pointed seeds have short, rearward facing barb-like hairs that help to move the seeds through throat linings as well as litter and organic matter on the ground. These awn-tipped seeds will coil and uncoil depending upon moisture and humidity in the air. This is a natural mechanism that ensures the seeds will be able to work their way through vegetation into the soil for germination.

You can hold the spearhead between your fingers and moisten the twisted awn and watch the awn slowly uncoil in a clockwise movement. As the awn dries it will coil tighter in a counter clockwise direction. Interestingly, an awn-less, self-pollinated seed is produced in the axils of lower stems just at ground level to ensure that the existing plant will be able to reproduce itself in place. To see this awn-less seed you will have to dig up the plant and pull the stems apart looking for just the seed or spearhead itself.

Texas wintergrass provides fair to good grazing value for all classes of livestock. The plants begin active green-up and growth in September. Crude protein levels in October to November are 8 to 11 percent, decreasing to 5-7 percent in February, and highest in March to April at 12 to 14 percent. Palatability decreases in late May to early June as seeds mature. The forage value for deer and antelope is fair since this may be the most common green vegetation available

during winter months. Quail are known to break off the awns and eat the seeds, and turkey will graze upon the leaves.

Historically, Texas wintergrass made up less than 15 percent of the climax plant composition on most rangeland sites, yet today this cool-season perennial dominates many pastures. One reason for the increase may be many years of heavy grazing during the summer months, then moving livestock to small grain fields during the winter months. This, in effect, allowed Texas wintergrass to have a yearly deferment during its growth period, while the warm-season grasses were repeatedly grazed during their growth period of spring through fall. The result is a dramatic shift in plant composition where pastures are now dominated by Texas wintergrass with fewer desirable warm-season grasses remaining. While it is good to have a “winter pasture” where Texas wintergrass is the dominant grass, if the entire ranch is thus dominated, it is not desirable.

The botanical name of *Nassella leucotricha* reveals in Greek the descriptive specie name *leucotricha* which means “white-haired”. If you have seen a heavily dominated Texas wintergrass pasture with mature seed heads you can understand why it is so named.

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Looking toward the setting sun highlights the glumes that once held the awn-tipped seeds of Texas wintergrass.



The awns on maturing seeds begin to twist and bend which ensures the seed can work through litter and thatch to reach the soil.



While approaching maturity the "spears" can be pulled and thrown at others and will stick in clothing.



Mid-winter growth of Texas wintergrass will be readily eaten by all classes of livestock and nibbled on by deer and antelope.