

COW/CALF CORNER

The Newsletter

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Rain hampers crop harvest and wheat pasture

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Sunshine finally appeared late last week raising hopes that Oklahoma will dry out and get summer crop harvest and wheat pasture grazing back on track. However, at least some rain is in the forecast in the coming days. It has been an unusual fall. According to the Oklahoma Mesonet, the last 30 days has been the second wettest for that time period with a statewide average of 187 percent of normal precipitation. The last 90 days has been the wettest on record for the period, with a statewide average of 173 percent of normal precipitation. All nine climate divisions in the state are reporting 90 day percentages well above normal. The least wettest areas have been the northeast and east central climate divisions of the state at 122 and 134 percent of normal, respectively. The south central region is the highest at 249 percent of normal in the last 90 days.

Wheat producers who did not get planting done early have struggled to plant recently. The Crop progress report for the week ending October 7, 60 percent of Oklahoma wheat was planted; ahead of the five-year average of 56 percent. However, the report for October 14, planting had advanced only 6 percent to 66 percent, behind the five-year average of 70 percent. Good moisture is helping wheat emergence. Wheat emerged in the week of October 14 was 50 percent, ahead of the five-year average of 43 percent for Oklahoma, and up from 28 percent the prior week.

Some wheat that was planted early is getting close to being ready to graze but some producers have struggled to get cattle ready for grazing. Wet, sloppy conditions make health challenges worse and producers have backed off of purchases recently. Some cattle sellers have also had difficulty gathering and getting cattle to market recently. After a huge cattle run the first week of October, Oklahoma auction volume the past two weeks has been 28 percent lower year over year. Stocker cattle auction prices have held steady the past two weeks after dropping back a bit from the late September counter-seasonal increase in prices. If conditions improve, feeder runs

are expected to increase seasonally in the next month but it appears that considerable wheat pasture grazing demand remains as well and may help balance bigger seasonal supplies.

For the first time in many years turnout for wheat grazing is likely to be delayed by excess moisture across many regions of the state. Attempting to graze soggy wheat fields will damage the stand. Wheat stands will need some time to dry out and improve root development so cattle will not trample or pull up the wheat plants while grazing. This may delay the early start of grazing but the overall moisture situation implies that plenty of wheat pasture will be available later. Producers may, in fact, be looking to stock a bit heavier than usual with potential for better than average wheat forage production this winter. Stocker budgets for winter grazing still look quite favorable unless grazing delays stretch out too long and cut days available for winter grazing down excessively.

Prussic acid and nitrate poisoning are concerns after a light frost

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Some of northwestern Oklahoma and the panhandle have already experienced a frost or freeze from the last cold front. However the rest of the state has yet to experience the first real frost of autumn 2018. Soon a cold front will bring near-freezing to sub-freezing nighttime temperatures to the rest of Oklahoma.

It was discovered in the early 1900s that under certain conditions sorghums are capable of releasing hydrocyanic acid or commonly called prussic acid. Prussic acid when ingested by cattle, is quickly absorbed into the blood stream, and blocks the animal's cells from utilizing oxygen. Thus the animal dies from asphyxiation at the cellular level. Animals affected by prussic acid poisoning exhibit a characteristic bright red blood just prior to and during death. Lush young regrowth of sorghum-family plants are prone to accumulate prussic acid especially when the plants are stressed such as drought or freeze damage. **Light frosts**, that stress the plant but do not kill it, are often associated with prussic acid poisonings.

Producers should avoid grazing fields with sorghum type plants following a light frost. The risk of prussic acid poisoning will be reduced, if grazing is delayed until at least one week after a "killing freeze". A hard freeze is a period of at least four consecutive hours of air temperatures that are below **25 degrees Fahrenheit**. Many plants can survive a brief frost, but very few can survive a hard freeze. As the plants die and the cell walls rupture, the hydrocyanic acid is released as a gas, and the amount is greatly reduced in the plants. One can never be absolutely certain that a field of forage sorghum is 100% safe to graze.

Cattle that must be grazed on forage sorghum pastures during this time of year should be fed another type of hay before turning in on the field, and should be watched closely for the first few hours after turn in. If signs of labored breathing, such as would be found in asphyxiation, are noted, cattle should be removed immediately. Call your local veterinarian for immediate help for

those animals that are affected. Be certain to read [OSU Fact Sheet PSS-2904 “Prussic Acid Poisoning”](#) before turning cattle to potentially dangerous fields.

Frosts also stress the plant before a hard freeze kills it. Plant stress from frosts will impair the normal metabolism of the plant. Therefore the plant continues to take up nitrates from the soil but is inefficient at converting the nitrates to protein. Therefore nitrate accumulations may reach dangerous levels. Testing the forage before grazing or cutting for hay will provide important knowledge about the safety or danger in the forage. Visit with an OSU County Extension office about testing procedures and read [OSU Fact Sheet PSS-2903 “Nitrate Toxicity in Livestock”](#).

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