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 FOR IMMEDIATE RELEASE  
 David Dugan  
 Extension Educator, Agriculture and Natural Resources  
 and Community Development

## On Farm Hemp Meeting

As a follow up to the Hemp meeting held at the Ohio Valley CTC on Oct. 1 we will travel to Kentucky for an on-farm meeting. This is a farm that has been in production of hemp for a few years and will give potential growers a better idea of production practices.

The meeting will be on Monday October 7 starting at 6:00 p.m. The farm is only about 15 minutes from the new bridge that crosses the Ohio River just west of Aberdeen and Maysville. The easiest way to get there is to take Route 8 toward Augusta just as you cross the river. The farm is located between Dover and Augusta.

We will follow up the farm tour with a tour of the lab in Maysville that processes the hemp. You will be required to have clean shoes for this part of the tour. Please bring a change of shoes to avoid tracking mud into the lab. Yes, I am optimistic that it will rain by next Monday.

Please call the OSU Extension Office at 544-2339 by noon on Monday to register for this Farm Tour. Signs will be posted to assist with finding the location along Route 8.

## Caution with Forages for Grazing

As we start October, most of Adams County saw very little rain in September. Some report less than a quarter of an inch for the entire month. With that some are watering cattle, some are feeding hay and some are still grazing, but that might need some attention. The following is from this week's CORN newsletter and OSU Forage Specialist Mark Sulc.

Livestock owners feeding forage need to keep in mind potential for some forage toxicity issues late this season. Nitrate and prussic acid poisoning potential associated with drought stress or frost are the main concerns to be aware of, and these are primarily an issue with annual forages and several weed species, but nitrates can be an issue even in perennial forages when they are drought stressed. A few legumes species have an increased risk of causing bloat when grazed after a frost. Each of these risks is discussed in this article along with precautions to avoid them.

### Nitrate Toxicity

Drought stressed forages can accumulate toxic levels of nitrates. This can occur in many different forage species, including both annuals and perennials. In particular to Ohio this year, corn, oat and other small grains, sudangrass, and sorghum sudangrass, and many weed species including johnson grass can accumulate toxic levels of nitrates. Even alfalfa can accumulate toxic levels under severe drought stress. An accompanying article in this issue of C.O.R.N. discusses nitrate



toxicity potential in corn. Here the other forages will be discussed.

Before feeding or grazing severely drought stressed forage, the forage should be analyzed for nitrates. Many commercial labs provide this service, and the cost is well worth it against the risk of losing animals.

See the following references for more details:

<https://fyi.extension.wisc.edu/forage/nitrate-poisoning-in-cattle-sheep-and-goats/>

<http://forages.tamu.edu/PDF/Nitrate.pdf>

### **Prussic Acid Toxicity**

Several forage and weed species contain compounds called cyanogenic glucosides that are converted quickly to prussic acid (i.e. hydrogen cyanide) in freeze-damaged plant tissues, or under drought conditions. Several labs provide prussic acid testing of forages. Sampling and shipping guidelines should be carefully followed because prussic acid is a gas and can dissipate during shipping leading to a false sense of security when no prussic acid is found in the sample.

**Drought stress can affect poisoning risk.** Drought-stunted plants can contain or produce prussic acid and can possess toxic levels at maturity. Prussic acid poisoning can be associated with new regrowth following a drought-ending rain, which is likely the case in some parts of Ohio now. Rain after drought plus young stages of plant maturity (see below) could combine to cause toxic levels of prussic acid in forage this year.

**Plant age affects toxicity.** Young, rapidly growing plants of species that contain cyanogenic glucosides will have the highest levels of prussic acid. Pure stands of indiangrass can have lethal levels of cyanide if they are grazed when the plants are less than 8 inches tall.

**Species with prussic acid poisoning potential.** Forage species that can contain prussic acid are listed below in decreasing order of risk of toxicity:

- Grain sorghum = high to very high toxic potential
- Indiangrass = high toxic potential
- Sorghum-sudangrass hybrids and forage sorghums = intermediate to high potential
- Sudangrass hybrids = intermediate potential
- Sudangrass varieties = low to intermediate in cyanide poisoning potential
- Piper sudangrass = low prussic acid poisoning potential
- Pearl millet and foxtail millet = rarely cause toxicity

Species not usually planted for agronomic use can also develop toxic levels of prussic acid, including the following:

- Johnsongrass
- Shattercane

- Chokecherry
- Black cherry
- Elderberry

It is always a good idea to check areas where wild cherry trees grow after a storm and pick up and discard any fallen limbs to prevent animals from grazing on the leaves and twigs.

**Frost affects toxicity.** Cyanogenic glucosides are converted quickly to prussic acid (i.e. hydrogen cyanide) in freeze-damaged plant tissues. Prussic acid poisoning potential is most commonly associated the first autumn frost. New growth from frosted plants is palatable but can be dangerously high in prussic acid.

**Fertility can affect poisoning risk.** Plants growing under high nitrogen levels or in soils deficient in phosphorus or potassium will be more likely to have high prussic acid poisoning potential.

**Fresh forage is more risky.** After frost damage, cyanide levels will likely be higher in fresh forage as compared with silage or hay. This is because cyanide is a gas and dissipates as the forage is wilted and dried for making silage or dry hay.

### **Brown Co. Master Gardener**

The Brown County Master Gardeners are continuing the programs at Southern State Community College in Mount Orab. The next Garden Seminar will be on Thursday, October 17 in Room 208 from 7:00 p.m. to 8:00 p.m.

Ron Powell, Ohio Pawpaw Growers Association, will talk about Pawpaw trees and the practice of grafting. As always, all seminars are free and open to the public.

### **Dates to Remember**

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| Oct. 7  | Hemp ON-Farm meeting. This will give farmers a hands-on view of a Hemp Farm in full operation. Location is 178 South Higginsport Road Augusta, KY beginning at 6 p.m. Please pre-register by calling 544-2339 by noon on Oct. 7.   |
| Oct. 21 | Pesticide and Fertilizer Certification Exams for Private and Commercial Applicators at the Old Y Restaurant at noon. Remember for October and November the exam dates will change to the third Monday of the month due to Columbus Day and Veterans Day falling on the second Monday of both months. |
| Nov. 14 | First night for Estate Planning program at North Adams High School. Register by Nov. 1 for early bird price. More details next week.   |

