Fayette County Agriculture & Natural Resources Newsletter

September 2024

Cooperative Extension Service

Cooperative Extension Service
Fayette County Extension
1140 Harry Sykes Way
Lexington, KY 40504-1383
Phone (859) 257-5582
Email: fayette.ext@uky.edu
http://fayette.ca.uky.edu/

Hi Everyone and Happy September!

My name is Allison Tucker and I am your new Agriculture & Natural Resources Agent. I am so excited to have taken on this role! I have lived in Fayette County my whole life and I have a passion for all things agriculture. My goal is to share that passion with my fellow Fayette County residents and bring information that is helpful to all the types of agricultural operations that make up our county!

Please feel free to reach out with any questions you have!

Allison Tucker

Allison Tucker
Fayette County Extension Agent for Agriculture & Natural Resources
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(859) 257-5582

Upcoming Events

September 26, 2024 ~ *Rinse and Return Program*; Fayette County Extension Office, Lexington KY; 10:00am-12:00pm; Back parking lot; For more information, please see the notice in this newsletter.

2024 Central Kentucky Hay Contest; Deadline to register is **October 7, 2024**. Please see the flyer in this newsletter for more information and how to register.

October 15, 2024 ~ *Harvesting Wealth Farm Financial Class*; 6:00pm; Program is being held by ZOOM; Please see the flyer in this newsletter for more information on how to register and locations of "watch" parties.

October 15, 16, & 17, 2024 ~ *Heart of America Grazing Conference*; Hardin County Extension Office, Elizabethtown, KY; For more information and to register, please go online to https://2024HeartofAmerica.eventbright.

October 24, 2024 ~ *Kentucky Beef Conference*; Fayette County Extension Office, Lexington, KY; 10:00am-2:00pm; Please see the flyer in this newsletter for more information on how to register for the conference; Cost is $10.00, payable at the door.

Forage Timely Tips: September

- If not already done, soil sample and apply fertilizer as needed.
- Plant perennial grasses and legumes. Consider using a novel endophyte tall fescue.
- Harvest hay as needed. Do not harvest alfalfa after mid-September.
- Scout pastures, identify perennial weeds and woody bush. Consult an agricultural professional to determine the control strategy.
- Closely monitor livestock and do not overgraze. Pasture plants accumulate energy reserves in the fall that help them overwinter and regrow in the spring.
- Feed hay to allow pastures to stockpile for winter grazing.
- Rest native warm-season grass fields after frost for better winter survival.

Source: **UK Forage News,** https://kyforagenews.com/

Broccoli and Beef Stir-Fry

1 pound lean beef steak, sliced diagonally across the grain into thin strips

1 tablespoon plus ½ cup stir-fry sauce

1 clove minced garlic

4 tablespoons canola oil, divided

1 medium red onion, cut into ½ inch dice

1 sweet red pepper. cut into ½ inch dice

1 medium yellow squash, cut into ¼ inch slices

2 cups fresh broccoli florets

1 cup cauliflower florets

½ teaspoon crushed red pepper flakes

1. **Combine** 1 tablespoon stir-fry sauce and minced garlic in a bowl. **Add** the beef strips. Let stand 15 minutes.
2. **Heat** 1 tablespoon canola oil in a large skillet or wok.
3. **Add** beef and stir fry for one minute. **Remove** beef from skillet.
4. **Heat** the remaining 3 tablespoons canola oil in the skillet or wok. **Add** vegetables. **Stir-fry** for four minutes or until vegetables are crisp-tender.
5. **Return** beef to skillet.
6. **Add** the remaining ½ cup stir-fry sauce and red pepper flakes. **Cook** and stir 1 to 2 minutes longer, until heated through.

Yield: 8, 1 cup servings

Nutrition Analysis: *180 calories; 10 g fat; 1.5 g saturated fat; 0 g trans fat; 25 mg cholesterol; 630 mg sodium; 9 g carbohydrate; 2 g fiber; 3 g sugar; 15 g protein.*

90% recommended allowance for vitamin C.

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.

Kentucky Proud

For Plate It Up! recipes, visit:
http://fcs-hes.ca.uky.edu/content/plate-it-kentucky-proud

Plate it up! Kentucky Proud

For Cook Wild Kentucky recipes, visit:
https://www.planeatmove.com/recipes

Cook Wild KENTUCKY

Should you be concerned about Smut in your Corn?

Dr. Jeff Lehmukuhler, PhD, PAS, Extension Professor, University of Kentucky

As the silage harvest season has started some concerns about smut have come in from the counties. Corn infected with Ustilago maydis or common smut can be unsightly for certain. The level of infection varies dramatically both on individual ears as well as across fields. It has been reported that smut may affect 5-40% of the ear, reducing grain yields. Timing of infection can influence the severity of infection and development of the ears on a plant. Therefore, the combination of a high plant infection rate combined with a large degree of grain loss on ears can result in significant grain reductions.

The smut or galls themselves are not known to produce toxins harmful to cattle. However, the development of the galls on the ears may loosen or open the husks allowing the growth of other mycotoxin forming organisms. A 4-year study reported that corn kernels from ears infected with smut, on average, had 45-fold higher aflatoxin levels than kernels from ears not having smut. When looking at the galls from smut infected ears, the kernels had a 99-fold higher aflatoxin level than the gall itself suggesting that the gall itself was relatively free of aflatoxin. The study also found a 5.2-fold higher level of fumonisin in kernels from smutted ears compared to kernels from ears with no smut. Thus, smut itself poses little concern directly towards animal health, but the fact that infection can result in secondary infections by mycotoxin forming organisms poses increased risk and testing for mycotoxins in silage is recommended.

Nutritionally, smut infection will reduce the grain component of corn silage. The loss of grain will reduce the digestibility, starch content and overall energy available to cattle. The reduced grain content will result in reduced passage rates potentially reducing intakes and performance. Be sure to adjust the diets for the reduced grain content by testing silage for starch content and adding corn or other energy sources back into the diet to maintain target performance.

University of Kentucky
College of Agriculture, Food and Environment
Cooperative Extension Service

"Today's Challenges, Tomorrow's Opportunities"

Kentucky Beef Conference

October 24, 2024

Fayette County Extension Office
1140 Harry Sykes Way
Lexington, Kentucky 40504

9:00—10:00
Registration, visit sponsors

$10 registration fee

RSVP by October 22nd to Fayette County Extension Office 859.257.5582

10:00—Welcome & Sponsor Recognition
Beau Neal, Woodford County Agriculture & Natural Resources Extension Agent

University of KY Remarks & Welcome
Dr. Laura Stephenson, UK Director of Extension

Genomics Technology
Dr. Troy Rowan, University of Tennessee Institute of Agriculture Beef Genetics Extension Specialist

11:00– Marketing Update & Outlook
Dr. Kenny Burdine, UK Beef Economic Extension Specialist

12:00 Lunch

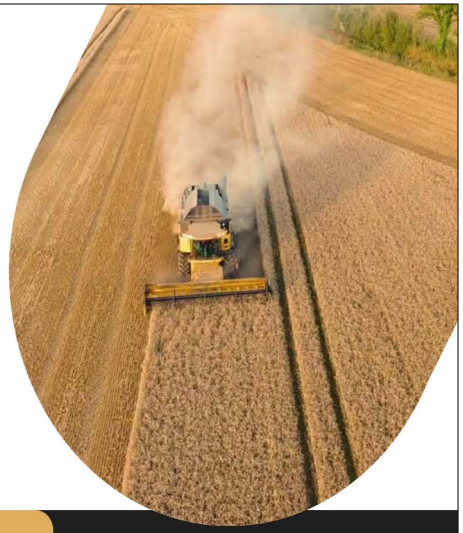
1:00— Animal Tagging Update
Dr. Michelle Arnold, UK Extension Ruminant Veterinarian

1:30— KY Beef Cattle Health Update
Dr. Steve Velasco, KY Department of Agriculture State Veterinarian

2:00—Adjourn

Cooperative Extension Service

HARVESTING WEALTH FARM FINANCIAL CLASS



Learn about farm structure, filing farm taxes, ag tax exemption, and ag production loans during this free online class

Speakers

Dr. Isaacs, UK Farm Managment Specialist
Jerry Pierce, KFMB Program Coordinator
Local Lenders for Production Loans

Watch parties available at the Bourbon and Clark County Extension Offices for those unable to attend online

OCTOBER 15TH AT 6PM

PLEASE CONTACT THE CLARK COUNTY OR BOURBON COUNTY EXTENSION OFFICES WITH MORE QUESTIONS!

CLARK: 859-744-4682
BOURBON: 859-987-1895

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Agriculture and Natural Resources
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LEXINGTON, KY 40546

Disabilities accommodated with prior notification.

2024 CENTRAL KENTUCKY

HAY CONTEST

Is your hay the best?

Testing provides nutritional value of hay to assist in balancing rations, and can result in reduced feed cost, increased animal performance, and information to improve forage stands.

Free analysis to determine hay quality and livestock needs.

To register email allison.tucker@uky.edu or call 859-257-5582

Martin-Gatton College of Agriculture, Food and Environment

DEADLINE TO REGISTER: OCTOBER 7, 2024

Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
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MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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Lexington, KY 40506

Disabilities accommodated with prior notification.

Considerations for harvesting drought-stressed corn to feed cattle

Donna Amaral-Phillips, Jeff Lehmkuhler, and Chad Lee
Extension Dairy Specialist, Extension Beef Specialist, and Extension Agronomist
University of Kentucky

Even with recent rains, some corn was too damaged by droughts to produce adequate yields. Some drought-stressed corn can be salvaged as cattle feed. Here are some things to consider if harvesting drought-stressed corn.

When Considering Your Harvest Options:

1. If corn is going to be fed as green chop, grazed, or as hay, test for nitrates before harvest to be sure the crop will be safe to feed. For corn harvested properly as silage or baleage and which goes through a good fermentation, nitrate levels could decrease 30 to 50% and can be tested after fermentation and before being fed. If you need to decide which corn fields to harvest as silage or hay, testing before harvesting will allow one to determine which fields need to be harvested as silage (those higher in nitrates) and those with safe levels of nitrates which can be harvested as corn hay. For sorghums and sorghum-sudangrasses, nitrates should be tested before harvest to be safe for your harvest method.

2. Check herbicide withdrawals to make sure the crop can be fed to livestock. Read the herbicide labels to identify if feeding restrictions are in place.

3. Raise the cut height—nitrates are highest in the plant stem closer to the ground. This may be more difficult if using a disc mower or other hay equipment for the purpose of making hay or baleage.

4. If at all possible, harvest as silage and let ferment for 4 to 6 weeks before feeding. You may want to consider using a silage inoculant. Again, test for nitrates before feeding.

5. Immature corn will be more variable in nutrient content than “normal corn silage”. After harvest, test the forage for its nutrient content and develop and feed a balanced ration to your cattle. Making a yield estimate prior to cutting corn will be a challenge if corn is harvested before the dent stage.

6. Watch the moisture content of the crop closely. Corn silage should be harvested between 62-65% moisture (35-38% dry matter). A small amount can be chopped to determine the current moisture content. Corn is drying down quickly in parts of Kentucky. Use a Koster tester (preferred) or microwave (acceptable, but be prepared to buy a new one for the house) to determine the actual moisture content. Silage and baleage need to be correct moisture to ferment properly and make good feed. Corn silage harvested at or less than 60% moisture (at or greater than 40% dry matter) results in a lower animal performance and should be avoided.

7. Tonnage may be low. Most corn is harvested for silage when the kernel is between ½ to ¾ milkline. In a healthy cornfield, the ear will make up half the total silage weight. Corn harvested before seed development will be much lighter.

8. Corn harvested early for silage will not have as much grain and the energy value of the subsequent silage will be less than normal. If the corn is severely drought-stressed, it will not make full kernels anyhow, and silage is an excellent option, but it will have a different feed value than “normal” corn silage. The corn silage should be sampled for nutrient analysis after fermentation and cattle rations should be adjusted accordingly.

9. Can you add enough water at the bagger or silo blower to increase the moisture content of the silage? For each 1% increase in moisture content, approximately 7 gallons of water is needed per ton. A typical garden hose delivers approximately 8-10 gallons per minute. Thus, it is nearly impossible to deliver enough water to make a difference. For example, to increase the moisture content from 45% moisture (55% dry matter) to 60% moisture (40% dry matter) for a wagon load of silage (4 ton capacity), you need to add 420 gallons of water. That is not feasible!!

Can you make baleage out of corn? Yes- but moisture and other harvesting techniques are important.

1. Moisture content needs to be between 30 to 50% for baleage. Getting the crop at the moisture content can be very challenging.

2. Plant material needs to be crimped and/or conditioned before baling. Conditioning is a must to get the crop to ferment. Using a rotary mower (i.e. bushhog) may also work but make sure the blades are sharp to reduce shredding of the corn plant. If your baler has knives, they can be used to chop the corn plant.

Continued on next page

Continued from previous page: Considerations for harvesting drought-stressed corn to feed to cattle

3. Newer balers work the best. This is a very coarse crop that is tough on hay equipment and some older style balers may have difficulty handling the crop.

4. Inoculant can be added at the baler, if you are equipped to handle this.

5. Wrap with at least 2 extra layers of plastic for a total of 7 layers of plastic due to corn stalks puncturing the plastic.

6. Net wrap may work better than string tie balers. If you use a string tie baler, additional wraps of string should be used.

Can you make hay out of the crop? YES--- BUT

1. Nitrates will not decrease from the standing crop. The crop needs to undergo normal fermentation to decrease the level of nitrates. Hay does not ferment!!! If nitrates are high in the standing crop, they will not decrease with harvest and hay storage.

2. Whole plant moisture needs to be about 15% for hay. If the crop is harvested with over 18% moisture, it will heat and make a very poor feed. It can spontaneously combust if too wet and goes through a heat.

3. Corn stalks protein and energy content will vary. Bales should be sampled for nutrient analysis and the hay may require supplementation depending on the cattle being fed.

Can you graze the corn left standing in the field? YES-BUT

1. Fencing and watering is a necessity for the livestock.

2. Strip-grazing is needed to reduce the risk of foundering/acidosis. Cattle will quickly learn to consume the ears first increasing starch intake. Using strip-grazing will increase intakes of leaves and upper portion of the stalk to reduce grain intake.

3. Consider a grass area for cattle to loaf/lay.

4. Provide free-choice access to hay. This will increase fiber intake and lower the risk of rumen digestive disorders. Hay intake can also be used as a gauge of corn allocation. As cattle consume more hay, this could mean they have consumed as much of the leaves, stalks, and ears from the area provided and a new section of standing corn should be provided.

5. Nitrate toxicity is a risk. However, most of the nitrates are in the lower portion of the stalk that cattle tend to avoid consuming.

6. Have a pasture area to move cattle to during periods of high precipitation to limit compaction.

RINSE AND RETURN PROGRAM
10:00AM-12:00PM - THURSDAY, SEPTEMBER 26, 2024
Fayette County Extension Office; 1140 Harry Sykes Way, Lexington KY

The Rinse and Return Program is a voluntary, cooperative program sponsored by the Kentucky Department of Agriculture and the Agri-Business Association of Kentucky (ABAK). Other partners include the University of Kentucky Cooperative Extension Service, which helps coordinate the Program on a county level, Farm Bureau, the U.S. Department of Agriculture's Natural Resources Conservation Service and the local conservation districts, and the Ag Container Recycling Council. Due to the materials previously held by these pesticide containers they cannot be recycled with your ordinary household plastics. This program allows for the proper recycling of these pesticide containers. For more information: https://www.kyagr.com/consumer/pest-and-recycling.html (scroll to "Rinse and Return Recycling Program")

- Be sure to triple rinse all chemical containers before bringing them to the Extension Office;
- Remove cover from container. Empty the pesticide into the spray tank and let the container drain for 30 seconds.
- Fill the container 10% to 20% full of water or rinse solution.
- Secure the cover on the container.
- Swirl the container to rinse all inside surfaces.
- Remove cover from container. Add the rinsate from the container to the sprayer tank and let drain for 30 seconds or more.
- Repeat steps 2 through 5 two more times.
- Puncture container.

US Hay Production Expected to Increase Again in 2024

Dr. Kenny Burdine, University of Kentucky

While row crop estimates get the most attention, USDA's August Crop Production report also provides an initial estimate of US hay production and includes projections for individual states. Hay production and stocks have major implications for winter feed supply and winter feed costs for cattle operations. Widespread drought in 2022 led to low hay production levels and left very limited hay supplies coming into 2023. This can be seen in the May 1 Hay Stocks figure below. Note that hay stocks in the US on May 1 of last year were at their lowest levels since 2013. A sharp increase can also be seen in 2024 as the larger 2023 crop helped to replenish hay supplies.

Last week's report suggested increases in production were likely at the national level for both "Alfalfa and Alfalfa Mixes", as well as "All Other Hay" in 2024. These are the only two categories of hay for which estimates are made by USDA-NASS. In this article, I will focus on the All Other Hay (non-Alfalfa) category as that is typically more reflective of hay that is fed to beef cows over the winter. At the national level, non-Alfalfa hay production was estimated to be up by 8.1% from 2023, largely due to higher expected yields across the country. While this is encouraging for hay supply in aggregate, hay markets are very localized since transportation costs tend to be very high. This is especially true for large roll bales, which are most often fed by cow-calf operators.

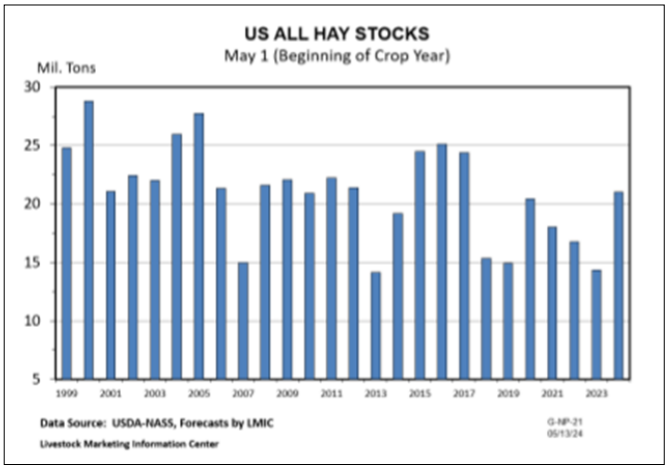
As I have done the last few years, I selected some state estimates from the August report to provide some regional perspective on likely hay production levels. As can be seen in the table below, non-Alfalfa hay production is expected to be higher in most states. Texas and Missouri especially stand out and it is worth noting that they are projected to be the two states with the highest production levels nationwide. Oklahoma stands out to the downside, but that decrease is driven by a sizeable drop in expected harvested acres. Hay production was projected higher in Kentucky, Arkansas, and Mississippi, with Tennessee (down 10.2%) being the outlier in the Southeast.

While a lot can still change with respect to hay production this fall, the August Crop Production report does paint a picture of increased hay supplies in many areas. In addition to hay production, fall grazing prospects will also impact how much hay will be needed in the upcoming winter. It is also important to understand that these production estimates say nothing about hay quality, which is another important element of the discussion. I like to examine hay production estimates and do think it provides some general perspective, but I would also reiterate how different hay availability can be across the country. It's never too early to think about winter hay needs and make plans to source additional hay, if needed.

Non-Alfalfa Hay Production Estimates in Selected States and US (2023 and 2024)

State	2023 Production (1,000 tons)	Est. 2024 Production (1,000 tons)	Change from 2023 to 2024
Arkansas	2,204	2,684	+21.8%
Kansas	2,781	3,028	+8.9%
Kentucky	4,158	4,466	+7.4%
Mississippi*	1,102	1,276	+15.8%
Missouri	4,380	5,805	+32.5%
Oklahoma	6,630	5,270	-20.5%
Tennessee	3,740	3,360	-10.2%
Texas	8,280	10,780	+30.2%
United States	68,853	74,450	+8.1%

*Mississippi Estimates include Alfalfa and Alfalfa Mixtures
Source: USDA-NASS August 2024 Crop Production Report



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UNIVERSITY OF KENTUCKY, KENTUCKY STATE UNIVERSITY, U.S. DEPARTMENT OF AGRICULTURE, AND KENTUCKY COUNTIES, COOPERATING

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