

NIKKI'S NEWSLETTER

Marshall County's Agriculture & Natural Resources Update



Cooperative Extension
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March 21st, 2023

As meeting season comes to a close, I would like to thank everyone who participated in one of the many classes I offered this winter! A quick tally indicated that I provided over 65 lessons/classes/programs this meeting season. This doesn't include the endless numbers of webinars that were provided statewide, nor the other program area's offerings. There is something for everybody at the Marshall County Extension Office. Take advantage of it!

African Swine Flu

The KY Pork Producers need help encouraging pork producers, whether large or small, to obtain a premise ID through the KDA State Vet's Office. This is important with the impending African Swine Flu that is moving closer and closer to the US. Producers obtaining this premise ID will make it easier for everyone to communicate in the long run. Especially if anything disease related were to become an issue. If you are interested, I can send you the information.

Growing Degree Days

It wouldn't be the spring edition issue of Nikki's News if we didn't discuss the weather. As of 3-21-23 we have already accumulated 1,053 GDD and the 30 year average for this date is only 769 GDD. For those who don't know, "growing degree days" are a calculation of heat units used to estimate the growth of plants & insects during the growing season. Basically, just be aware that we are coming in hot!

Lawn Pre-emergent Herbicides

As noted above, we have had unseasonably warm temperatures and they have prompted questions about the timing of pre-emergence lawn herbicide applications. Traditionally, April 15th was a general recommendation. These days, the recommendation is based on soil temperatures that have reached a daily average of 50-55 degrees for 5 consecutive days. I would hate for you to miss this window. For more information look up our new publication AGR-272, which is entitled "Pre-emergence Herbicides for Kentucky Lawns."

Wheat Freeze

I am glad to help wheat growers analyze your wheat freeze damage. After a freeze event, the wheat needs 5 to 7 days of good growing weather before we can determine the extent of the damage. With the forecast, 5 to 7 days of "good weather" could take two weeks. I looked at some wheat on 3/21 in Brewers and it was just starting to joint or was just finishing up tillering. My best guess of a worst case scenario for wheat that size is that the main shoot, or possibly the second tiller could be lost. Even if that happens, a healthy stand of wheat "should" have enough tillers to recover well. Time will tell. Let me know if you would like me to scout your wheat for damage.

Master Gardener Activities

The Marshall Master Gardener Association is thriving and has many offerings for you all to take advantage of this spring. They will be providing a chia pet growing clinic for kids at Family Day at the MSU Arboretum on April 4th. They will also be at both the Earth Day Festival at the KY Dam Village Sustainability Garden and the Aurora Plant Sale with their infamous "Ask a Master Gardener Booths" on April 22nd. Also, don't forget their yearly plant sale will be on on May 20th at the former Central Church of Christ (one block west of the Extension Office) We hope to see you there!
-Nikki Rhein

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RECIPE OF THE MONTH

- P. 8 BUTTERNUT SQUASH & TURKEY CHIL

Marshall County Farmers Market

Vender Meeting & Scale Certification

April 18
5:30pm
Marshall County
Extension Office

Agenda:
Vender Registration
Certified Scale Pickup
Market Planning Meeting

Mandatory for
venders!
Please try to
attend!

Scales can be dropped off anytime
from April 10th-17th.

Venders selling products by weight, MUST use certified scales. This will be the only scale certification for 2023. Please make appropriate arrangements.



Marshall County Conservation District's

Highlight of the Month:

State Cost Share Program



The Soil and Water Conservation Commission voted in 2012 to have continuous sign ups. Ranking of applications will be performed once each year on the state level by the Kentucky Soil and Water Conservation Commission at the Kentucky Division of Conservation in Frankfort. Approval of applications is based on statewide ranking criteria and the availability of funds. (Funding comes from the Kentucky General Assembly through direct appropriations to the program from the Tobacco Settlement Funds and from funds provided by the Kentucky Department of Agriculture.) Cost share rates are a maximum of 75% of the actual installation cost of the practice not to exceed \$20,000 per year.

Practices eligible for cost share are agriculture and animal waste control facilities; animal waste utilization; vegetative filter strips; integrated crop management; pesticide containment; sinkhole protection; pasture and hay land forage quality; heavy use area protection; rotational grazing system establishment; water well protection; forest land and cropland erosion control systems; closure of agriculture waste impoundment; on-farm fallen animal composting; soil health management; precision nutrient management; strip intercropping system; livestock stream crossing and riparian area protection.

For more information or to apply please visit the Marshall County Conservation District located at 107 West 5th Street, Benton.

A Summary of Cost & Returns for the 2022-2023 Hay Crop



James Mitchell (U. of Arkansas)

As we transition to spring in the coming months, we will naturally shift gears and begin thinking about and preparing for 2023 hay production. It is difficult to overstate how important it is for us to have improved forage and hay production in the Southeast. We hope it will be different than last year. In 2022, most Southern states experienced some degree of drought. Input prices for agricultural chemicals,

fuel, supplemental feed, and labor were all at their highest in recent memory. As a result, hay production declined by 16%, 13%, and 20% in Arkansas, Mississippi, and Kentucky, respectively.

Part of planning for this year's hay crop is re-examining costs and breakeven prices. This article uses results from the 2022 Arkansas Hay Verification Program to examine hay production costs in Arkansas. The Arkansas Hay Verification Program (AHVP) is a collaborative effort between Arkansas forage producers, county Extension agents, and state Extension Specialists. Eight hay fields from seven farms participated in the 2022 AHVP and were all located in the Ozark district. The total acreage participating in 2022 AHVP was 252.5 acres or 36.1 acres per field. Hay production from the 2022 AHVP totaled 826.2 tons or 3.27 tons per acre. The estimated value of production from the 2022 AHVP totaled \$127,239.42.

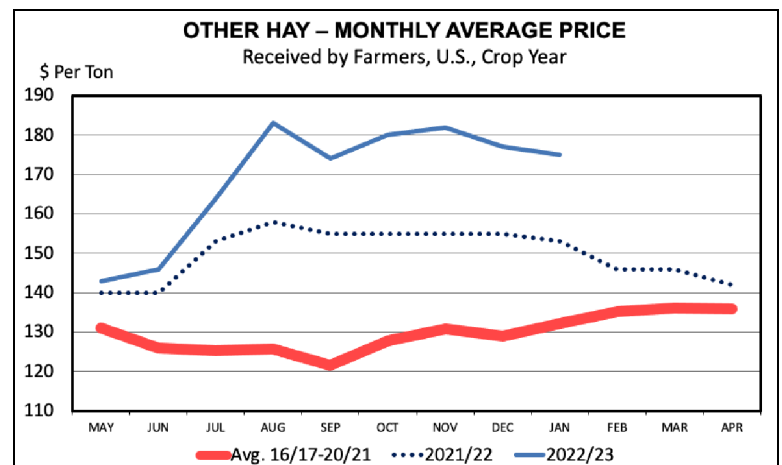
Table 1 reports summary information for operating costs, total specified costs, and breakeven prices. Operating costs generally include herbicides, fertilizers, insecticides, fuel, custom rate application, and labor. Hay hauling was assumed to be a separate farm enterprise. Fixed costs include depreciation, interest, and taxes and housing costs on tractors and equipment. Total specified costs equal operating costs plus fixed costs. Breakeven prices are total specified costs divided by per acre production.

Operating costs averaged \$375.14/acre with a range of \$192.96/acre - \$577.50/acre. Among all items, fertilizer represented the largest proportion of operating costs. Farms in the 2022 AHVP averaged \$244.43/acre on fertilizer (including poultry litter), with a range of \$92.00/acre - \$428.15/acre. Higher fertilizer expenses were positively correlated with per-acre hay yields. A negative

correlation was observed between fertilizer expenses and breakeven hay prices. Realized yield gains offset the higher costs from applying fertilizer.

Breakeven prices are calculated by dividing total specified costs by production per acre (tons/acre). Note breakeven refers to the hay price where revenue equals costs. The average breakeven price of hay among farms in the 2022 AHVP was \$111.88/ton. Breakeven prices ranged from \$82.72/ton to \$160.99/ton. It is recommended that farms get accurate estimates for bale weights and price hay on a per-ton basis. Bales are not a standard unit of measurement and do not accurately reflect the value of production when priced on that basis.

Note: These estimates reflect summary data from eight farms in Arkansas that will not necessarily reflect any one farm's situation.



Data Source: USDA-NASS
Livestock Marketing Information Center

Variable	Average	Std. Dev	Min	Max
Total Direct Costs (\$/ac)	\$375.14	\$131.48	\$192.96	\$577.50
Total Specified Costs (\$/ac)	\$422.04	\$137.79	\$237.78	\$632.71
Breakeven Price (\$/ton)	\$111.88	\$32.42	\$82.72	\$160.99

West KY Small Ruminant Field Day

 University of Kentucky
College of Agriculture,
Food and Environment

From forages to feet! Join us for an afternoon of on farm speeches and demonstrations on topics relating to profitable sheep and goat production.

Hoof Trimming Demonstration

Join Extension Agent Miranda Rudolph as she demonstrates proper hoof trimming techniques and explains what to look for when caring for your stock's hooves!

Pasture Walk

Follow Dr. Megan Taylor as she leads you on a pasture walk while discussing the best ways to renovate and maintain healthy pastures for your small ruminants!

Increasing Efficiencies

Listen in as Agent and Owner of Chadwick Sheep Company, Matt Chadwick, shares tips on how to increase feed and reproduction efficiency!

May 2nd

3:30pm

Chadwick Sheep Company

761 Kirksey Almo Rd

Murray, KY 42071

(Rain Reschedule Date: May 4th)

 **Free** 
Hoof Trimming Kits

Space is limited! Must RSVP by calling (270) 527-3285

This program is a collaborative effort brought to you by the Marshall, Calloway, Graves and McCracken County Extension Offices.

Small Ruminant 4

Lunch Break Gardening Series

UK University of
Kentucky
College of Agriculture,
Food and Environment



April 5th's Topic: Grapes

Join Master Gardener, Doug Parady, for a lesson on growing and pruning grape vines.

Join us during your lunch break for a gardening workshop!

\$12

Includes a lunch from a local restaurant

1st Wednesday Monthly
12:15-12:45pm
at the Marshall County
Extension Office



RSVP by April 3rd
Call 270-527-3285

Lunch Break Gardening Series

UK University of
Kentucky
College of Agriculture,
Food and Environment



Hummingbird Friendly Backyards

May 3rd

Join the LBL Nature Station Naturalists, as they share the natural history of the hummingbird and how to create a hummingbird friendly backyard!

Join us during your lunch break for a gardening workshop!

\$12

Includes lunch from a local restaurant

1st Wednesday Monthly
12:15-12:45pm
at the Marshall County
Extension Office



RSVP before May 1st
Call 270-527-3285

Proper Vegetable Garden Planning for Disease Prevention

Kim Leonberger, Plant Pathology Extension Associate & Nicole Gauthier, Vegetable Extension Plant Pathologist

Warmer temperatures mean spring is right around the corner, and gardeners everywhere are ready to get plants in the ground. However, prior to planting, growers should develop a plan for this year's vegetable garden. A thoughtful approach to garden layout and preparation can influence disease pressure as well as the overall success of the crop. Here are few areas to consider to get ahead of diseases as you make your vegetable garden plans.

Planting Site

The best vegetable garden sites are sunny with adequate moisture and fertile, well-drained soil. Avoid low spots, which can worsen soilborne diseases, and shady locations, which can worsen foliar diseases. Prior to planting, it is advisable to draw a planting map. This allows consideration into site limitations and succession planting. Scale models of the garden space can be drawn on graph paper, or simple maps may be made using a virtual spreadsheet (Figure 1). Choose perennial locations carefully to make tilling more convenient. Taller crops, such as sweet corn or tomatoes, should be planted on the north or west side of the garden to avoid shading shorter plants. Retain these maps from year to year and refer when planning next season.

Crop Rotation

If the same garden site is used each year, avoid planting the same or closely related crops in an identical place each year. A three-year rotation is recommended, however, even a year or two out of a certain plant family can be beneficial. Crop rotation prevents disease-causing pathogens from building up in soil. Multiple vegetable crops are closely related and are prone to many of the same disease issues. Closely related crops are listed below.

Tomatoes, Peppers, Potatoes, and Eggplant

Cucumbers, Pumpkins, Squash, Watermelons, and Muskmelons

Peas, Broad, Snap, and Lima Beans

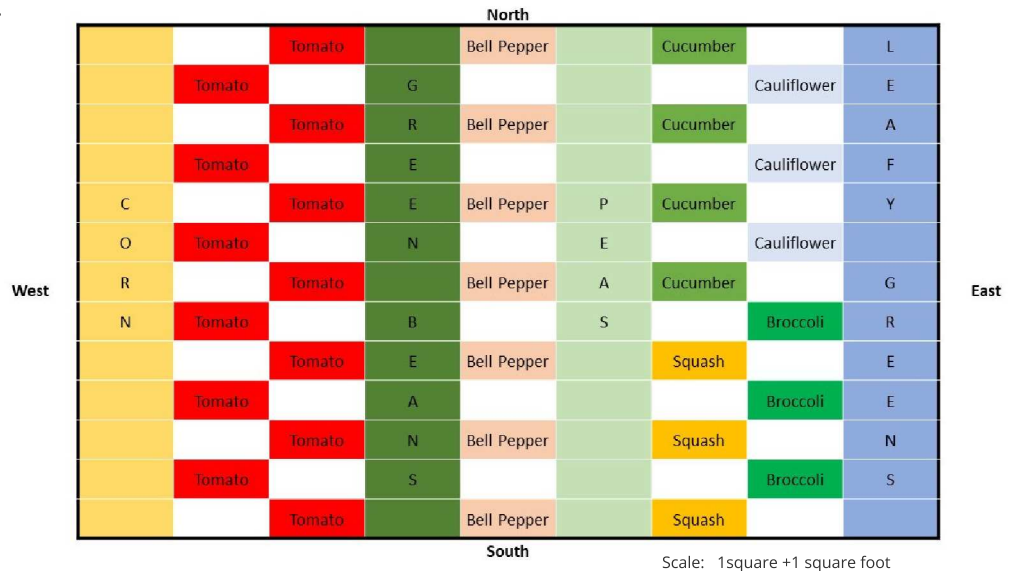
Cabbage, Cauliflower, Kale, Collards, Brussels Sprouts, Broccoli, Kohlrabi, Turnips, Rutabaga, Chinese Cabbage, and Mustard

Lettuce, Endive, and Salsify

Chives, Garlic, Leeks, Onions, and Shallots

Beets, Swiss Chard, and Spinach

Carrots, Parsley, Celery, Celeriac, and Parsnip



Compost Piles-

Avoid composting diseased plants or produce, since home compost piles typically do not reach temperatures high enough to kill pathogens. Accelerate the rate of decomposition by turning compost piles at least once per month. Avoid adding fresh material to current compost piles, as new material will not break down in time for this season. Water should be added to very dry compost piles at turning to allow for more complete decomposition.

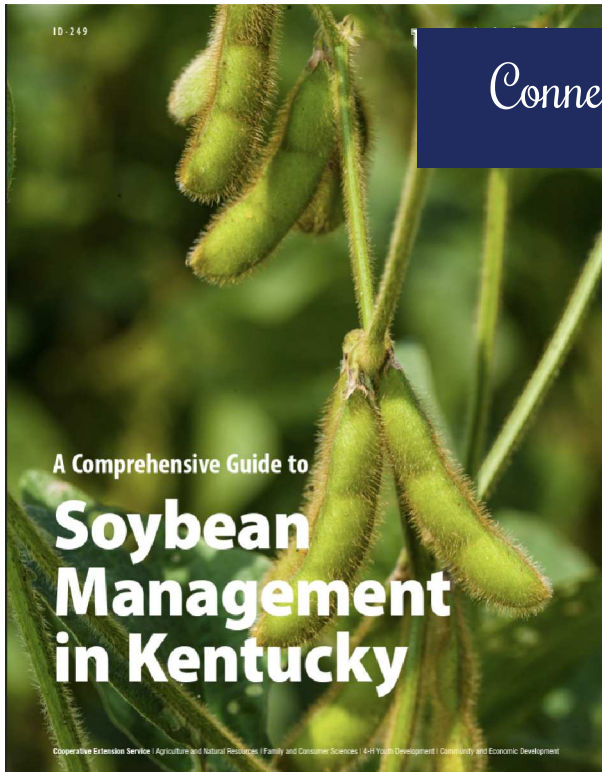
Gardening Apps-

Tech-savvy gardeners may enjoy utilizing one of the many mobile applications available for both Android and Apple platforms. Apps can be used to map out vegetable gardens and maintain records from year to year. Several apps allow users to enter information about cultivar, planting date, and plant growth. Some apps provide an estimated date for harvest from this information. A few apps have been designed to diagnose common disease and insect issues. However, diagnosis of plant problems can be a challenging task, even with the assistance of an app. Thus, if plant problems arise in the garden, reach out to a local County Extension Agent for assistance.

Keep Records-

Each garden season is like a school year, with lessons to be learned. Whether by app or a physical garden journal, keep track of disease and pest issues as they occur, to help develop strategies to prevent or manage these issues. Also include varieties grown, how they performed, and common weather patterns.

Kentucky Soybean Planting Recommendations



Conner Raymond, Extension Assoc. Grain Crops

After experiencing the warmest winter on record for most of the state, producers are gearing up for planting season. With above average soil temperatures some may even be tempted to plant earlier than usual. Regardless, it is always good to refresh with the fundamentals of soybean planting in Kentucky.

Planting Date and Soil Temperature To achieve maximum yield of a full-season soybean crop the recommended planting date for Western Kentucky is mid-April through early May and by mid-May in Central Kentucky, but soil temperatures need to be warm enough before starting. Soil temperatures 2 inches below the ground need to reach and sustain at least 50°F, and there also needs to be no risk for a killing freeze. Cool, wet soil conditions can result in delayed emergence as well as slower germination. Seed vigor is important to know when planting into cool, wet conditions. Vigor ratings are not on most seed labels but can easily be obtained by asking the seed dealer or submitting a sample to UK regulatory services.

Seed Treatment and Pest Management

If soybeans are planted into cooler soil conditions, precautions such as fungicide and insecticide seed treatments should also be considered. Fields with a history of Sudden Death Syndrome (SDS) can still be planted early, however, specific seed treatment products that have efficacy against SDS and highly resistant varieties should be considered. Insect pressure can also cause stand losses. Bean leaf beetle damage can be easily identified by pitting of the cotyledons after emergence. An insecticide seed treatment should also be considered, especially if an early planting date is attempted.

Planting Depth, Seeding Rate and Inoculant

The recommended harvest population of soybean plants is 100,000 plants/acre. With all factors being considered such as germination rate, stand losses from insects, seedling diseases, and cool soil conditions, seeding rate should reflect the expected losses to these factors. Soybeans should be planted between 1 and 2 inches deep in the soil. If seeding depth is deeper, the risk increases for the seed not emerging from ground. Fields that have been overly wet through the winter or have not had a recent history of soybean planting, 3 to 5 years, should be inoculated when planting.

Additional information is available in UK extension publication ID 249: Soybean Management in Kentucky (pictured above) and AGR-130.

SAVE THE DATE!

2023 Marshall
Master Gardener
Plant Sale

May 20th





Butternut Squash and Turkey Chili

Stovetop Directions:

Heat the olive oil in a large pot over medium heat. Stir in the onion and garlic; cook and stir for 3 minutes or until onion is translucent.

Add ground turkey. Break into pieces and stir until cooked through and no longer pink. Add the butternut squash, chicken broth, green chilies, tomatoes, kidney beans, hominy, and tomato sauce.

Season with chili powder, cumin, and salt. Bring to a simmer, reduce heat to medium-low, and cover. Simmer until the squash is tender, about 20 minutes.

Electric Pressure Cooker Directions: Press sauté function. Add olive oil and onion; cook and stir for 3 minutes or until onion is translucent. Add garlic and cook for 30 more seconds. Add ground turkey. Break into pieces and stir until cooked through and no longer pink. Add the butternut squash, chicken broth, green chilies, tomatoes, kidney beans, hominy, and tomato sauce. Season with chili powder, cumin, and salt. Close the lid, and then turn venting knob to the sealing position. Pressure cook at High Pressure for 15 minutes, allow for a natural release. Open the lid carefully.

Nutritional Analysis: 190 calories, 4g total fat, 0.5g saturated fat, 20mg cholesterol, 590mg sodium, 25g total carbohydrate, 7g fiber, 5g total sugars, 0g added sugars, 16g protein, 0% DV vitamin D, 8% DV calcium, 10% DV iron, 15% DV potassium

Ingredients:

- 2 tablespoons olive oil
- 1 medium onion, chopped
- 4 cloves garlic, minced
- 1 pound ground turkey
- 1 pound (1 small) butternut squash — peeled, seeded, and cut into 1-inch cubes
- 1 cup low-sodium chicken broth
- 1 (4.5-ounce) can chopped green chilies
- 2 (14.5-ounce) cans petite diced tomatoes
- 1 (15-ounce) can no-salt-added kidney beans, drained and rinsed
- 1 (15.5-ounce) can white hominy, drained
- 1 (8-ounce) can tomato sauce
- 1 tablespoon chili powder
- 1 tablespoon ground cumin
- 1/2 teaspoon salt

Kentucky Winter Squash

SEASON: August through October.

NUTRITION FACTS: Winter squash, which includes acorn squash, butternut squash, pumpkin, and other varieties, is low in fat and sodium and an excellent source of vitamin A and fiber.

SELECTION: Winter squash should be heavy for its size with a hard, tough rind that is free of blemishes or soft spots.

STORAGE: Store in a cool, dry place and use within one month.

PREPARATION:

To steam: Wash, peel, and remove seeds. Cut squash into 2-inch cubes or quarter, leaving rind on (it will remove easily after cooking). Bring 1 inch of water to a boil in a saucepan and place squash on a rack or basket in the pan. Do not immerse it in water. Cover the pan

tightly and steam the squash 30 to 40 minutes or until tender.

To microwave: Wash squash and cut it lengthwise. Remove seeds. Place it in a baking dish and cover with plastic wrap. Microwave until tender, using these guidelines:

- **Acorn squash:** ½ squash, 5 to 8 minutes; whole squash, 8 ½ to 11 ½ minutes.
- **Butternut squash:** 2 pieces, 3 to 4 ½ minutes.
- **Pumpkin:** 1 pound piece, 7 to 8 minutes.

To bake: Wash squash, and cut it lengthwise. Smaller squash can be cut in half; larger squash should be cut into portions. Remove seeds, and place squash in a baking dish. Bake at 400 degrees F for 1 hour or until tender. Seeds can be toasted at 350 degrees F for 20 minutes.

WINTER SQUASH

Kentucky Proud Project

County Extension Agents for Family and Consumer Sciences

University of Kentucky, Dietetics and Human Nutrition students

November 2019

Source: www.fruitsandveggiesmatter.gov

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

<http://plateitup.ca.uky.edu>



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Cooperative Extension Service

For more information go to:

<http://marshall.ca.uky.edu/AgNaturalResources>
or follow us on Facebook @marshallcountyanr

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Marshall County