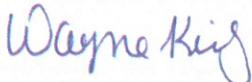


Spring 2023 Agriculture Newsletter

Cooperative Extension Service
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Knox County Extension
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Wayne Kirby,
ANR Agent

Important Dates

- March 14th 11am-Backyard Cooking
- March 20th 6pm- Area Corn Meeting
@Laurel County Extension
- March 21st 7pm- Knox County Cattleman's
- March 23rd 5-7pm- Farmers' Market Vendor
Informational Potluck Dinner (RSVP to Mary
Beth 606-627-1810)
- April 3rd 7am- News and Views
- April 20th 4pm- Farmers' Market Opening Day
- May 1st 7am- News and Views



Top 10 routine tractor maintenance tasks

Source: Tim Stombaugh, extension agricultural engineer

Tractor maintenance tends to fall by the wayside when you get busy. Don't put these tasks off until spring and summer. Performing a simple front-to-back routine every week can help you remember key maintenance points. The manufacturer will have suggested intervals for most of the maintenance tasks, so you won't have to do everything every week. But the routine will prompt you to ask if it is time to do specific tasks.

Be ready for the growing season before it starts with these 10 routine maintenance tasks.

1. Inspect the front axles and steering. Is it time to grease the bearings and steering components? Make sure nothing is loose.
2. Check the coolant system. Make sure the coolant levels are adequate. Ensure the radiator is not plugged up with debris.
3. Look at those belts. Check to see they have the right tension and that they are not cracked. This will prompt you to have a spare on hand.
4. The air filter is next. Make sure it is not clogged and robbing power from your engine by not allowing air to get through.
5. Check engine oil. You should check this daily, but if you haven't, a good time to do it is during your weekly inspection. Also, check the fluid itself to ensure it doesn't have any contaminants or water in it.
6. Pay attention to the battery. If your battery is not a maintenance-free battery, check the liquid levels. Examine the cables for corrosion and make sure they aren't rubbing against the frame components.
7. Check clutch and brake linkages. With everyday use, you may not notice linkage getting out of adjustment. Specifically check for free play and other linkage adjustments.
8. Look at the hydraulic reservoir. Make sure the fluid is at the correct level and change the fluid when needed. The system provides fluids for remote cylinders, and it the critical lubricating force in your tractor's transmission.
9. Test those tires Make sure they are properly inflated.

Check the back of the tractor. Is it clean? Make sure the hydraulic hose connections are clean to keep dirt out of the system.

These simple procedures can extend the life of your tractors and protect your critical investment. For more information on equipment maintenance, contact the Knox Cooperative Extension Service.

OFF THE HOOF

KENTUCKY BEEF CATTLE NEWSLETTER FEBRUARY 6, 2023

Timely Tips

Dr. Les Anderson, Beef Extension Professor, University of Kentucky

Spring-Calving Herd

Get ready for calving season this month!

- Have calving equipment, supplies and labor ready for the spring calving season. Some supplies that may be needed are: eartags and applicator (put numbers on eartags now), tattoo pliers and ink, record book, scales for calf weights, iodine for calves' navels and colostrum supplement. Calving equipment (puller and chains, etc.) and facilities should be ready and clean. Keep your veterinarians phone number handy!
- Overall condition of the cow herd should be evaluated. Cows losing weight now are more likely to have weak or dead calves. These cows will likely be a poor source of colostrum milk for the newborn calf. Feed cows, if necessary, to keep them in good body condition. Cows need to calve in a BCS of 5, minimum, to expect them to rebreed in a timely fashion. Calve you heifers a little heavier, BCS of 6.
- Heifers may begin head-start calving in early February. Move them to a clean, accessible pasture, away from cow herd and near facilities so that calving assistance can be given. Cows may start calving later this month. Signs of calving are relaxation of pelvic ligaments, enlargement and swelling of the vulva, and enlargement of the udder. Expect calving difficulty if (1) calf's head and two feet are not visible, (2) only the calf's tail is visible, and (3) the cow has been in labor for 1½ hours. Be sure calf is being presented normally before using calf puller. Recognize situations that are beyond your capability and seek professional help as early as possible. Calves that aren't breathing should receive assistance. Try sticking a straw in nostril to stimulate a reflex or try alternate pressure and release on rib cage. Commercial respirators are also available. Calves should consume colostrum within 30 minutes of birth to achieve good immunity.
- Record birthdate, cow I.D., and birthweight immediately (use your Beef IRM calendar). Identify calf with an ear tag and/or tattoo. Registered calves should be weighed in the first 24 hours. Male calves in commercial herds should be castrated and implanted as soon as possible.

- Separate cows that calve away from dry cows and increase their feed. Increase feed after calving to 25-27 pounds of high quality hay. Concentrate (3-4 lb. for mature cows and about 8 lb. for first-calf heifers) may be needed if you are feeding lower quality hay. Hay analysis will greatly aid any decisions regarding type and amount of supplementation. Supplementation may have a beneficial effect on date and rate of conception. It's an important time to feed a beef cow after calving. Thin cows don't come into heat very soon after calving. We must have cows in good condition, if we plan to breed them early in the season for best pregnancy rates, especially on high-endophyte fescue pastures.
- Sub-zero weather can mean death for newborn calves. During extremely cold spells, bring the cow(s) into a sheltered area as calving approaches to protect the calf. Be prepared to warm-up and feed newborn, chilled calves. Calving in mud can also cause problems.
- Watch for scours in newborn calves. Consult your veterinarian quickly for diagnosis, cause, and treatment. Avoid muddy feeding areas so that cows' udders won't become contaminated and spread scours. Don't confine cows to muddy lots.
- Replacement heifers should be gaining adequately to reach target breeding weights by April 1st. Be sure that their feeding program is adequate for early breeding.
- Start looking for herd sire replacements, if needed.

Fall-Calving Herd

- Breeding season should end this month – maybe Valentine's Day. Remove bulls and confine them so that they regain condition.
- Consider creep feed or creep grazing (wheat, etc.) to supply extra nutrition to fall-born calves which may have to depend solely on their dam's milk supply for growth. They are not getting much except their dam's milk now (i.e. there is nothing to graze). February/March is the worst time of the year for fall-born calves.
- Provide windbreaks or clean shelter for calves.

General

- Increase feed as temperature drops. When temperature falls below 15 degrees, cattle need access to windbreaks. For each 10 degrees drop below 15 degrees, add three pounds of hay, two pounds of corn, or six pounds of silage to their rations.
- Always provide water. Watch for frozen pond hazards. If cattle are watering in a pond, be sure to keep ice "chopped" to keep cattle from walking on the ice and, possibly, breaking through. Keep automatic waterers working.
- You should be feeding a mineral supplement with adequate magnesium to prevent grass tetany (~ 15% Mg) now. The Hi-mag UK Beef IRM mineral can be used.
- Control lice. Watch for signs such as rubbing.
- Begin pasture renovation. You can overseed clover on frozen or snow-covered pastures. For more information on frost seeding clover, look at the January issue of Off the Hoof or go to the UK Forages website. (www.forages.ca.uky.edu).



Weed Control Recommendations for Kentucky Bluegrass and Tall Fescue Lawns and Recreational Turf

A.J. Powell, Jr., J.D. Green, and J.R. Martin

In All Newly Seeded Turf

Weeds	Time of Application	Herbicides*
Mustard	Apply during fall after grass germination.	bromoxynil (Buctril)

Comments: For post-emergence control. Safe on seedling grasses. Use bromoxynil only on nonresidential turf.

Crabgrass Foxtail	Can be applied at seeding time	siduron (Tupersan)
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Comments: For pre-emergence control. Usually applied after spring seeding.

In Established Turf

Post-Emergence Control of Broadleaf Weeds

Weeds	Time of Application	Herbicides*
Plantain Wild garlic Dandelion	September to early November or March to May	2,4-D or any combination listed below
Chickweed Ground ivy Henbit White clover Red sorrel	September to early November or March to May	2,4-D + dicamba (Banvel, Vanquish) 2,4-D + mecoprop (Turf Kleen, Weed-B-Gon) 2,4-D + triclopyr** (Turflon II, Chaser) 2,4-D + dichloroprop (Weedone DPC) 2,4-D + mecoprop + dicamba (Trimec, Three-way**, 33 Plus, TrexSan, Triplet)
Oxalis Spurge Knotweed	After weeds have emerged in spring or early summer	triclopyr + clopyralid (Confront)** MCPA + triclopyr + dicamba (Horsepower, Coolpower)**
Wild violets	After greenup in spring or before frost in fall	2,4-D + clopyralid + dicamba (Millennium) triclopyr (Turflon)** alone or in combination with 2,4-D (Turflon II) or clopyralid (Confront)**

Comments: Repeated spot treatments following first applications may be necessary. Avoid spray drift that might injure desirable plants. Do not use same spray equipment for spraying flowers, vegetables, fruits, or shrubs. Do not use dicamba where the chemical may be washed into root zone of desirable trees or shrubs. It is much safer to apply spot sprays than make general applications, especially during summer.

*Follow closely the directions on the label. Many different formulations and combinations of these materials are sold under various trade names, and the quantity of use will vary with the formulation obtained. Some common trade names are included in parentheses.
**Some of these herbicides may not be available in all markets.

Where trade names are used, no endorsement is intended, nor criticism implied of similar products not named.

Pre-Emergence Control of Annual Weed Grasses

Weeds	Time of Application	Herbicides*
Crabgrass Foxtail Goosegrass	In southern Kentucky before April 1 and in northern Kentucky before April 15. A six-week repeat application will extend control for entire summer season. If goosegrass is main target weed, apply second application about May 15.	benefin + trifluralin (Team) bensulide (Betasan, PreSan, Lescosan) oxadiazon (Ronstar)** pendimethalin (Weedgrass Control, Pre-M, Halts, Pendulum) dithiopyr (Dimension) prodiamine (Barricade) bensulide + oxadiazon (Goosegrass/Crabgrass Control)**

Comments: For pre-emergence control apply before weed seeds germinate. Follow label closely for rate of material to be applied on a given area. Some of these products are impregnated on fertilizer. Oxadiazon is best for goosegrass.

Post-Emergence Control of Annual Weed Grasses and Nutsedge

Weeds	Time of Application	Herbicides*
Crabgrass Dallisgrass Foxtail Goosegrass	Early stage of growth; make two or three applications at seven to 10 day intervals, or as regrowth occurs. Usually applied in June or July.	DSMA (Disodium methanearsonate) MSMA (Monosodium methanearsonate) Trade Names—Daconate, Bueno
Crabgrass Goosegrass Foxtail	One application may be sufficient if applied to pre-tillered crabgrass.	fenoxaprop-ethyl (Acclaim Extra)** quinclorac (Drive)**

Comments: May cause temporary discoloration of turfgrass. Best results are obtained if treatments are made when weeds are young, tender, and at a rapid stage of growth. Do not apply when temperature is over 85 °F and when turf is under drought stress. Do not apply Acclaim Extra on bermudagrass turf.

Nutsedge	When nutsedge is actively growing and under good soil moisture conditions	bentazon (Basagran T&O, Lescogran) MSMA + 2,4-D + mecoprop + dicamba (Trimec Plus)** halosulfuron (Manage)** DSMA or MSMA (Daconate, Bueno)
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Comments: If desired control is not obtained with the first application, make additional applications at intervals of 10 to 14 days until nutsedge is eliminated.

Non-Selective Control of Perennial Weed Grasses

Weeds	Time of Application	Herbicides*
Tall fescue clumps Bentgrass patches Nimblewill Bermudagrass Quackgrass	Apply when target grass (weed) is actively growing and soil moisture is good.	glyphosate (Roundup Pro, Roundup, Avail, Kleenup, Blot-Out, Knock-Out) glufosinate (Finale)

Comments: These herbicides will kill all desirable grasses and weeds that are green at the time of spraying. Treated areas must be reseeded or sodded with desirable grasses. With bermudagrass control, a second application at three to four weeks will greatly improve control.

*Follow closely the directions on the label. Many different formulations and combinations of these materials are sold under various trade names, and the quantity of use will vary with the formulation obtained. Some common trade names are included in parentheses.
**Some of these herbicides may not be available in all markets.

Soil Sampling Pastures and Hayfields

Chris D. Teutsch and Edwin L. Ritchey, Plant and Soil Sciences

Adequate soil fertility in pastures and hayfields is key to maintaining productivity and optimizing profitability. Soil testing is the basis of well-designed fertilization and liming programs. In order to develop effective programs, soil samples must be collected in a manner that results in an accurate representation of each pasture or hayfield area. The objective of this publication is to provide guidelines that, when followed, result in representative soil samples.

Sample pastures and hayfields in the spring or fall. Soil samples can be collected at any time during the year, but collecting samples in either the spring or fall is ideal. More importantly, always soil sample a given pasture/hayfield at the same time of the year. This allows comparisons over time, permitting evaluation of long-term changes in soil fertility.

Sample pastures and hayfields every two to three years. In order to track changes over time, typical pastures and hayfields should be sampled every two to three years. Intensively managed hayfields with high yields that result in high levels of nutrient removal, such as alfalfa, should be sampled every year.

Avoid sampling immediately following lime and/or fertilizer applications. Sampling following lime, fertilizer, or manure application should be delayed for about 6 months.

A single soil sample should not represent more than 20 acres. Pastures or hayfields larger than 20 acres, or which exhibit considerable variability, should be subdivided based on landscape position, forage type, and productivity potential. In intensively managed grazing systems, every paddock should be sampled.

Do not sample areas where animals congregate.

Avoid sampling near hay feeding areas, mineral feeders, feed bunks, shade trees, ponds, or waterers. Animals concentrate dung and urine in these spots, elevating soil nutrient concentrations. These areas are *not* representative of the pasture (Figure 1).

Remove plant residues on the soil surface prior to sampling. Scrape soil surface plant residues away prior to taking each soil core because these residues can inflate soil organic matter and nutrient concentration values.

Do not take samples directly in manure pats and urine spots. Do not sample within such spots, as organic matter and nutrient concentration values will be inflated and not representative of the pasture area. Move at least 3 inches away before taking a soil core.

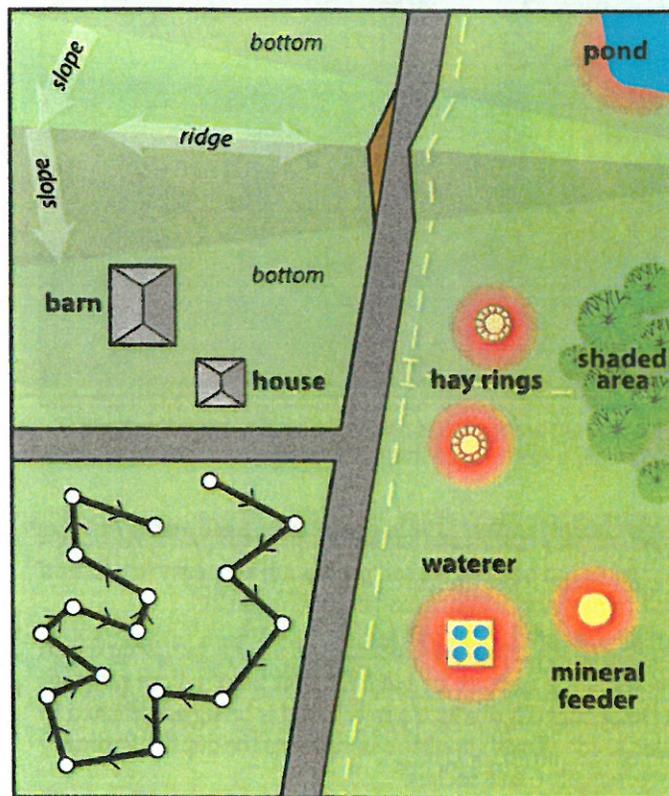


Figure 1. Obtaining representative soil samples is key to accurate soil test results. Collect 15 to 20 cores per pasture or hayfield in a zigzag pattern. Make sure to avoid sampling areas where animals congregate. Larger pastures and hayfields should be subdivided based on landscape position, forage type, and productivity potential.

Key Points

- Soil testing is key to optimizing liming and fertilization programs.
- Accurate soil test results are highly dependent on obtaining representative samples.
- Sample pastures and hayfields in the spring or fall.
- Sample pastures and hayfields every two to three years. Sample more frequently for intensively managed hayfields.
- Sample areas larger than 20 acres should be subdivided and sampled separately.
- Subdivide pastures based on landscape position, forage type, and productivity potential.
- Do not sample where animals congregate. Dung, urine, and rotting organic material increase nutrient concentrations in these areas and lower fertilizer recommendations.
- Always use a soil probe to sample pastures. The sampling depth should be 4-inches.
- Collect 15 to 20 cores per sample in a plastic bucket. Sampling should follow a random zig-zag pattern across the entire area to be represented by each sample.
- Crush and mix the cores thoroughly and fill sample container to the designated line.
- Submit samples along with completed paperwork to local extension office.



Figure 2. A soil probe should always be used to collect soil samples. Sampling depth for pastures and hayfields should be 4 inches.

Always sample pastures and hayfields using a soil probe. Although other tools can be utilized, soil probes are very easy to use, and result in the most uniform soil cores (Figure 2).

Sampling depth should be 4 inches. The 4-inch sampling depth represents the pasture or hayfield root zone where nutrient uptake occurs (Figure 2). If a new stand is being established in a tilled seedbed, soil should be sampled to the depth of primary tillage, usually 6 to 8 inches.

Collect 15 to 20 cores randomly throughout each pasture/hayfield area. Walking in zigzag pattern, collect a minimum of 15 to 20 cores. In pasture/hayfield areas that are larger and have more variation, collect more cores (Figure 1).

Put cores in plastic bucket, hand crush, and mix thoroughly. Cores should be placed in a clean, dry plastic bucket (never use a galvanized metal bucket) (Figure 2). Then, the soil cores should be hand crushed and mixed thoroughly. Crushing and mixing will result in a more representative sample sent to the soil test lab. Fill the properly labeled soil test box or bag to the designated line. If the soil is excessively wet, allow the sample to air dry and remix the sample before filling the soil test box/bag.

Complete the soil test sample submission form and take samples to local extension office. It is extremely important that samples are properly labeled and that the submission form is completed. Fertilizer and lime recommendations will be based not only on the soil test lab results, but also on the information provided on the submission form.

Results will come to local extension office. Results and recommendations will be emailed to your local extension office within one to two weeks. Local agents will send you a copy of the results and be available to help interpret soil testing data.

Additional Resources:

- Find your local Extension Office in Kentucky
<http://extension.ca.uky.edu/county>
or (859) 257-4302.
- AGR-1: *Lime and Nutrient Recommendations*
<http://www2.ca.uky.edu/agcomm/pubs/agr/agr1/agr1.pdf>
- AGR-103: *Fertilization of Cool-Season Grasses*
<http://www2.ca.uky.edu/agcomm/pubs/agr/agr103/agr103.htm>
- Web Soil Survey, USDA-Natural Resource Conservation Service
<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

Area Corn Meeting

March 20th at 6:00pm

Laurel County Extension Office





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

Knox County Cooperative Extension Service
215 Treuhaft Blvd., Suite 7
Barbourville, KY 40906

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