Issue 1084

K-STATE Research and Extension

Extension Agronomy

eUpdate

12/18/2025

These e-Updates are a regular weekly item from K-State Extension Agronomy and Kathy Gehl, Agronomy eUpdate Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Kathy Gehl, 785-532-3354 kgehl@ksu.edu, or Dalas Peterson, Extension Agronomy State Leader and Weed Management Specialist 785-532-0405 dpeterso@ksu.edu.

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1. Agronomy eUpdate Holiday Publishing Schedule

Today's issue is the final Extension Agronomy eUpdate of 2025. With the next two Thursdays falling on Christmas Day and New Year's Day, the eUpdate will pause for the holidays and return on Thursday, January 8, 2026.

Thank you for your continued readership and engagement throughout the year. We are grateful to the faculty, staff, and collaborators who contribute their expertise each week, and to our readers who rely on the eUpdate as a trusted resource. We look forward to sharing new research and timely agronomy updates in the year ahead.

2. Crabgrass could serve as an alternative cattle forage

In eastern Kansas, pasture is the most important source of feed for livestock. In systems with cool-season forages, this forage lacks during the summer. Because cool- and warm-season grasses have different photosynthetic mechanisms, one option to extend the grazing season is to have pastures with warm-season forage grass, such as crabgrass (*Digitaria* spp.), that produce most of the forage during hot months.

Crabgrass is a forage introduced to the United States in 1849. It is an annual species, but due to its high capacity to produce seeds, allowing reseeding, it is considered a perennial forage. Though considered a weed by many, crabgrass can be a beneficial cattle feed option due to its high yield potential, forage quality, and palatability. Crabgrass has a clump-type growth habit and, due to the presence of stolons (stems growing horizontally, which can produce roots), spreads aggressively.

Pasture Establishment

Crabgrass should be seeded in a clean, well-prepared area in spring when there is little chance of frost. Seeds should be drilled no deeper than ¼ inch as below ½ inch leads to poor stand establishment. The seeds can also be broadcast, but it is recommended to cultipack following seeding to improve seed-soil contact and reduce loss due to a heavy rainfall.

A good stand (dense and healthy) can be achieved by seeding 4 to 6 pounds of pure live seed per acre. With adequate moisture, seed germination begins when the soil temperature reaches 55°F. Pasture establishment can be sped up through nitrogen fertilization when the seeds have germinated and tillers are in the early stages as N improves tillering to reduce runoff and increase competitivity.

Weed Control

Controlling weeds is essential as weeds compete for water, nutrients, and sunlight. The best way to control weeds is to stimulate growth by maintaining adequate soil fertility levels, which will result in a rapid establishment and soil cover. The faster the pasture is established, the less chance weeds have to grow. If crabgrass is growing well, shading will limit weed emergence and development. In addition, adequate harvest management helps to control weeds by avoiding overharvesting. When the stubble heights are lower than 3 to 4 inches, the plant reserves may be compromised, reducing the capacity, velocity of regrowth, and stand thinning.

Herbicides can also be used to control weeds in association with harvesting management. Always consult the herbicide label for application restrictions and instructions, such as recommendations about rates, timing, and grazing restrictions. Only allow grazing after the grazing restriction period has ended. These recommendations can be found in the K-State publication *Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland*, available online at https://bookstore.ksre.ksu.edu/item/2026-chemical-weed-control-for-field-crops-pastures-rangeland-and-noncropland_SRP1194

Fertilization and Harvesting Management

Soil fertility directly affects forage production and quality. It is important to highlight that fertilization

should be done based on soil test results. Thus, the first step is to take representative soil samples to support an adequate fertilization program. Contact your local extension agent for instructions about soil sampling and tests.

During the establishment, phosphorus is important as phosphorus stimulates root development, tillering, and accelerating the pasture establishment. In an established pasture, nitrogen is the most important nutrient as nitrogen increases forage yield and improves quality. Potassium enhances the nitrogen effect and needs to be taken into consideration in southeast Kansas, where potassium soil levels are commonly lower. Checking soil test levels help ensure the most effective nutrient applications.

Harvest management is another factor that drives both forage production and quality. When forage plants are harvested, it stimulates the production of new leaves that have higher photosynthetic potential and nutritive value. In a rotational stocking system, the pasture should be grazed when the canopy height is not more than 12 inches to maintain high forage quality. Ideally, the best condition to graze a crabgrass pasture is when the canopy reaches 6 to 8 inches in height. At the same time, keeping the stubble height not lower than 3 to 4 inches is essential. The same recommendation can be used to define hay harvesting.

Combining fertilization and harvesting management may be an interesting option to improve forage yield and quality. A 2-year (2020 and 2021) study was conducted in Columbus, Kansas, to evaluate how five combinations between two harvest managements (harvested once or twice; H1 and H2, respectively) and three nitrogen rates (0, 100, and 200 lb/acre; N0, N100, and N200, respectively) affect the agronomic performance of two crabgrass varieties ('Mojo' and 'Quick-N-Big').

For Mojo, forage production was higher when two harvests were combined with nitrogen fertilization (100 or 200 pounds of nitrogen per acre). For the Quick-N-Big, nitrogen fertilization increased the forage production in both years regardless of the harvesting management (Figure 1a). The total digestible nutrients (TDN) varied little between treatments, with values ranging around 50% for Mojo and 51% for Quick-N-Big (Figure 1b).

In both varieties, crude protein increased when the pasture was harvested twice and was higher as more nitrogen was applied (Figure 1c). The positive effect of nitrogen fertilization and two harvests on the forage production and crude protein resulted in a higher crude protein production per acre, mainly when two harvests were combined with 200 pounds of nitrogen per acre (Figure 1d).

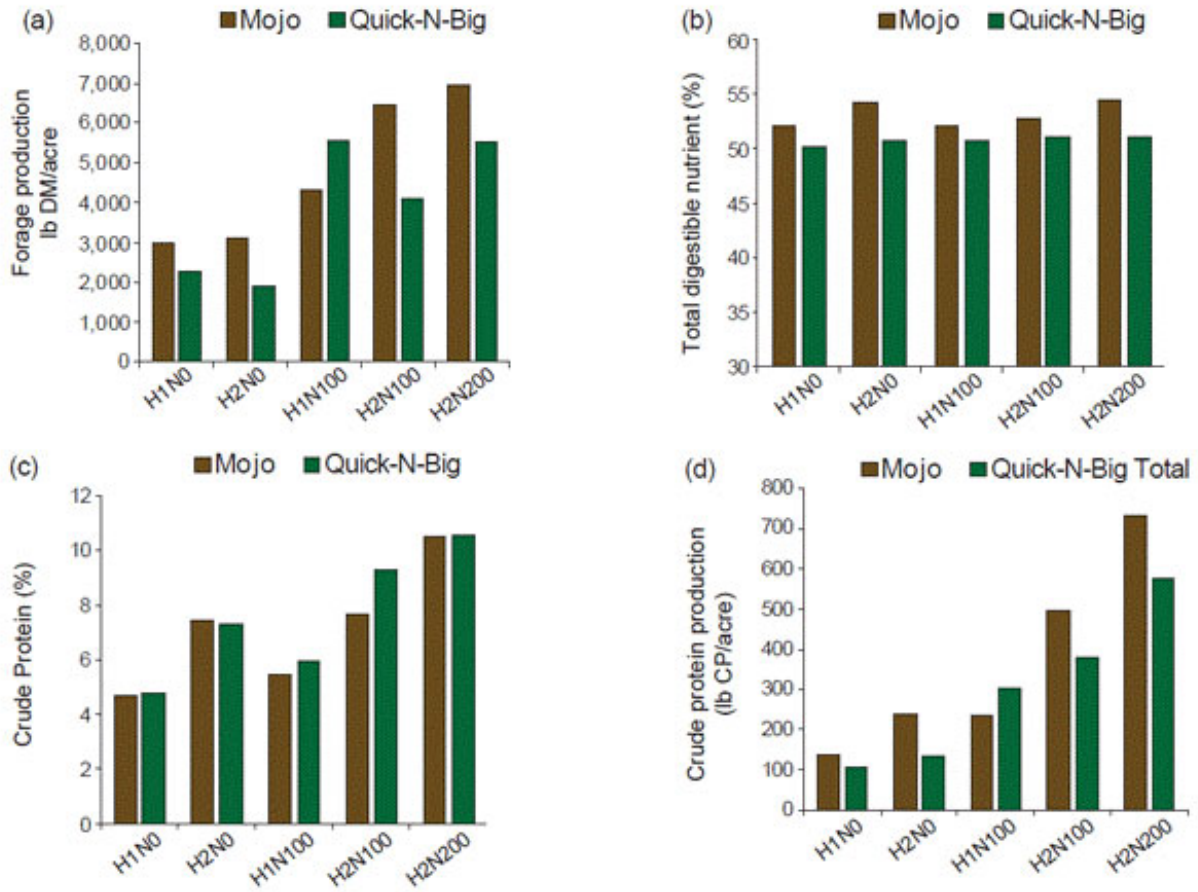

Figure 1. Effect of N fertilization and harvest management on forage production (a), total digestible nutrients (b), crude protein (c), and crude protein production (d) in 'Mojo' and 'Quick-N-Big'.

Harvesting management and nitrogen fertilization can be used to increase forage production and improve forage quality; however, fertilizer prices must be considered. Nitrogen losses from mineral fertilizers are always a concern in forage systems, and split-applying nitrogen is an alternative to increase nitrogen-use efficiency.

An online version of the full KSRE publication is available at https://www.bookstore.ksre.ksu.edu/pubs/MF3644.pdf, and copies can be ordered from the K-State Research and Extension Bookstore at https://bookstore.ksre.ksu.edu/

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3. K-State Regenerative Agriculture Podcast Releases First Episode

The Kansas State University Regenerative Agriculture Initiative has launched a new podcast highlighting regenerative agriculture research, outreach, and on-farm efforts across K-State and the state of Kansas. The first episode features a conversation with Dr. Chuck Rice, discussing his career and providing an overview of the K-State Regenerative Agriculture Initiative.

Future episodes will include conversations with K-State faculty from across the university, Kansas farmers, and agriculture leaders from Kansas and beyond. Following the inaugural episode, the podcast will take a short break for the holidays and return on Monday, January 5, with a discussion featuring Dr. Anita Dille, K-State Professor of Weed Ecology. Episodes will be released weekly on Mondays thereafter.

The K-State Regenerative Agriculture Podcast is available on:

Apple Podcasts - https://podcasts.apple.com/us/podcast/k-state-regen-ag-podcast/id1860133222

Spotify
- https://open.spotify.com/episode/5EOd04pCVad5UVYP7AFGkT?si=c8o842DJSsiU_rWruhjv6A

YouTube - https://www.youtube.com/watch?v=aCfaqIkZ_rs

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4. Cover Your Acres Winter Conference set for Jan. 20–21 in Oberlin

The **23rd annual Cover Your Acres Winter Conference** for crop producers and agronomy professionals will be held **January 20–21, 2026**, at **The Gateway Civic Center in Oberlin, Kansas**.

Cover Your Acres is a producer-driven meeting featuring new ideas and research-based updates for crop production in northwest Kansas and the Central High Plains. In response to current challenges, this year's program also includes agricultural economics, legal, and risk management topics.

The conference highlights the latest technology, methods, and conservation practices to improve crop production in the region. University specialists and industry experts will discuss what's driving profitability on northwest Kansas farms. This year's sessions will focus on crop fertility needs, weed control and site-specific weed management, intensifying rotations, forages, crop markets, crop insurance, legal issues for farmers, and much more!

The same program will be offered both days, allowing participants to choose the day that best fits their schedule. Those attending both days may find it easier to attend most or all sessions.

Online registration is open.

- **Registration by January 14**: $60 for Tuesday, Jan. 20, $55 for Wednesday, Jan. 21, or $80 for both days.
- **After January 14** and for walk-ins, registration is $80 per day.

The registration fee includes lunch, morning and afternoon refreshments, and educational materials.

The program will offer continuing education units (CEUs) for Certified Crop Advisors and 1A credit for commercial applicators at select sessions.

The complete conference schedule, including session times and room assignments, will be posted soon. For conference details, lodging accommodations, and online registration, visit www.northwest.ksu.edu/coveryouracres. For questions, contact Jeanne Falk Jones at 785-443-3403.

Many thanks to these confirmed 2026 Platinum Sponsors: K-State Research and Extension, AKRS Equipment, Hoxie Implement Co., 4G Farm and Sales, and SurePoint Ag Systems.

Cover Your Acres
Winter Conference

2026 Cover Your Acres is scheduled for January 20-21, 2026

At the Gateway in Oberlin, KS.

Jeanne Falk Jones, Northwest Area Agronomist – Colby
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5. Alternative Crops Meetings Planned for January 14–15

Kansas producers interested in diversifying crop rotations are invited to attend a series of **Alternative Crops sessions** on **January 14–15**, hosted by K-State Research and Extension in partnership with industry collaborators. These meetings will focus on agronomic, marketing, and logistics considerations for emerging and alternative crops in western Kansas.

Topics will include winter canola agronomics and marketing, industrial hemp agronomics, and winter durum wheat agronomy, marketing, and logistics, with presentations from K-State specialists and industry experts. Speakers include Logan Simon (K-State), Jeff Frazier (Scoular), Tina Sullivan (K-State), and Chad Sager (Farm Strategy).

Sessions will be held:

- **Wednesday, January 14**
  - *Syracuse*: 10:30 a.m.–1:00 p.m. (MT), Hamilton County Fairgrounds 4-H Building, 806 S. Main, Syracuse, KS
  - *Sublette*: 5:00–7:30 p.m. (CT), Haskell County Fairgrounds Commercial Building, 600 S. Fairgrounds Rd., Sublette, KS
- **Thursday, January 15**
  - *Dodge City*: 10:30 a.m.–1:00 p.m. (CT), Ford County Fairgrounds, 901 W. Park St., Dodge City, KS (don't use Google maps).

Registration is required by January 7. To register, scan the QR code on the flyer or call **(620) 624-5604**.

For additional information, contact the extension offices of Hamilton County (620-384-5225), Ford County (620-227-4542), or Wild West District (620-624-5604).

Kansas State University Extension

SCOULAR Let's get growing.

Farm Strategy

ALTERNATIVE Crops

SPEAKER TOPICS:

Logan Simon (KSU)- Winter Canola Agronomics
Jeff Frazier (Scoular)- Winter Canola Marketing & Logistics
Tina Sullivan (KSU)- Industrial Hemp Agronomics
Chad Sager (Farm Strategy)- Winter Durum Wheat Agronomy, Marketing & Logistics

SESSION LOCATIONS:

- **Wednesday, January 14**
  - Syracuse- 10:30 am to 1:00 pm (MT) @ Hamilton Co. Fairgrounds 4-H Building, 806 S. Main, Syracuse, KS
  - Sublette- 5:00 pm to 7:30 pm (CT) @ Haskell Co. Fairgrounds Commercial Building, 600 S. Fairgrounds Rd, Sublette, KS
- **Thursday, January 15**
  - Dodge City- 10:30 am to 1:00 pm (CT) @ Ford Co. Fairgrounds, 901 W Park Street, Dodge City, KS

DON'T USE GOOGLE MAPS!

HOSTED BY:

HAMILTON COUNTY EXTENSION- (620) 384-5225
FORD COUNTY EXTENSION (620) 227-4542
WILD WEST DISTRICT EXTENSION (620) 624-5604

CALL OR SCAN HERE TO REGISTER

REGISTER BY JANUARY 7!

To Register Scan QR or Call:
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