Glyphosate and Glufosinate Shortages

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Through the fall and into the winter we have heard of possible herbicide shortages. The two products that we have heard the most about have been glyphosate and glufosinate. Recently one of the main manufactures of the herbicide glyphosate announced that a supplier of the raw ingredient has had a mechanical failure which has added concern for shortages of glyphosate.

Glyphosate is used in pre-emerge and post-emerge applications in corn and soybean crops that are glyphosate tolerant. Many growers rely on this herbicide for post applications in corn and soybeans for grasses. A grower’s goal in the spring is to start clean and free of weeds at planting. We can do this with tillage, or through chemical weed control. Glyphosate is commonly used as a burndown option in the spring in no-till operations. Glyphosate is also used in cover crop termination and can be tank mixed with other products to give a broader spectrum of weed control and to reduce the development of herbicide resistant weed species.

If you experience shortages of glyphosate for corn post weed control, herbicide premixes may be available that contain glyphosate and fill the needs of your post weed control program. Understanding the ability of the premix to control broadleaf and grasses can be understood from reviewing university or industry weed control guides. Often, these guides will score the control of the herbicides affect upon grasses and broadleaves assigning the level of control a number. Reviewing the score helps growers select a program based upon the weeds that are on the farm.

Some pre-mixes of glyphosates come packaged with residuals and others are packaged with post herbicides. The premixes are handy, work well, and fill the need when there are shortages of glyphosate. HPPD inhibitors also identified as herbicide group number 27 have activity on small grasses in corn. These herbicides are used commonly in a conventional herbicide program and can be used when there are shortages of glyphosate. When using herbicide group number 27, it is important to follow directions and understand the size of and weed species controlled.

If you are growing soybeans, herbicide group 1 products which are commonly used to control volunteer corn can offer control to small grasses. It is important to review the label before using any herbicide to understand the level of control in addition to the correct size of the weeds for application of herbicide group 1 products. Targeting application when grasses are smaller is key, and the herbicide label will state the sizes of grasses that the herbicide will control.

Glufosinate is used in corn and soybean crops that have specific tolerance to glufosinate chemistry. Soybeans that have glufosinate soybean trait packages have increased over the past few years due to soybean breeding efforts. Broadleaf chemicals that are used in soybean post emerge applications along with good residual packages can replace glufosinate product shortages. Suggestions for replacement herbicides could come from consulting a weed control guide to understand the effectiveness of herbicides upon specific weed issues that you have in your field. Herbicide group one products when used in soybeans offer post applied grass control if supply is unavailable for glufosinate. Always read and follow the label directions and consult with an agronomist if you have any questions.
Alternative Feedstuffs

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Persistent drought in the western half of the U.S and the Southern Plains is now creeping eastward. The other thing that is creeping is feedstuff prices. Regardless of the feedstuff, all are higher priced than in previous years. Currently, there is no cheap feed!

Continuing drought will dictate future planning for existing and alternative feedstuffs. Starting in March, begin scouting hay fields and pastures for density and health of the forage plants. Are there spots with bare soil? If so, consider frost seeding red clover (usually most successful) while the soil is still frozen. In April, dig up alfalfa plants and look at the roots. Are they creamy white and firm or brown and mushy? Count the number of live plants per square foot and consider the age of the stand before deciding whether to interseed a grass/legume mix or start over with a new seeding.

Cover crops are an alternative feedstuff but require pre-planning of the forage system. Popular cover crops for fall grazing are oats, radishes, and turnips. But none of these overwinter or provide early spring grazing. The most successful cover crop for spring grazing in Northwest Iowa is cereal rye seeded the previous summer or early fall. To aid in planning a cover crop system, the Midwest Cover Crops Council has a great online tool available at https://mccc.msu.edu/covercroptool/. It will suggest what to seed, when to seed, and when to begin harvest.

Silage is another alternative feedstuff. Most upper-Midwest livestock producers are familiar with corn silage but may not be as familiar with small grain silage. To learn how to reduce costs and improve feed quality of small grain silages, ISU Extension and Outreach, Nebraska Extension, and Lallemand Animal Nutrition are hosting a Small Grain Silage for Beef Cattle conference on March 17. It will be offered in-person at Mead, Neb., or online. To view from home, pre-register by March 2 at https://go.unl.edu/silageforbeef2022. For those unable to view from home, ISU Extension and Outreach Sioux County will host a live showing on March 17 at their office in Orange City. The program is from 8:30 a.m. to 3:45 p.m., but attendees may come and go. No charge for the program (except lunch). Call 712-737-4230 by March 14 to register.

Topics during the Small Grain Silage for Beef Cattle conference on March 17 will include:

- 8:45 a.m. – Agronomic Management of Small Grain for Silages
- 9:30 a.m. – A Balancing Act: When to Harvest Small Grain Silage?
- 10:30 a.m. – What to Do with Limited Water: Sorghum Silage
- 11:15 a.m. – Why is Fermentation Analysis Important and What It Could Mean for Your Operation?
- 12:45 p.m. – Fundamentals of Silage Harvest Management
- 1:30 p.m. – Inoculants for Small Grain Silage: Which Ones, When to Use and Return on Investment
- 2:30 p.m. – Economics and ROI on Quality Forage in Grower and Finishing Beef Rations
- 3:15 p.m. – Panel Discussion: Making Small Grain Silage Work

One More Reminder: I-29 Moo University Annual Dairy Beef Short Course is March 29th - Dairy beef makes up 20 percent of the beef market and is an important part of the beef industry. That is why dairy and beef specialists from ISU, SDSU, NDSU, UNL, and the U of M are offering a short course focused on cutting edge technology and management for dairy beef producers. The program will be March 29, from 10 a.m. to 3:00 p.m., at the Denny Sanford Premier Center in Sioux Falls. Topics include lessons learned from cattle feeding across the U.S. applied to dairy beef feeding, economic considerations for the dairy beef market, protein nutrition of calf-fed Holstein steers, and a dairy producer panel. Registration is $35 per person. Cal ISU Extension and Outreach Sioux County office at 712-737-4230 or visit https://www.extension.iastate.edu/sioux/i29-moo-university-dairy-beef-short-course to register by March 21.

What Type of Cover Crop Farmer Are You?

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A 2021 study by Iowa State University scholars entitled “Developing farmer typologies to inform conservation outreach in agricultural landscapes” grouped farmers into four typologies or personalities depending on their approach to conservation. Conservationists are “highly focused on yield and profit [and] most concerned about potential negative impacts of farm policy and the economics of commodity production.” Traditionalists tend to stick “to familial traditions passed down through the generations rather than trying new conservation ideas.” And lastly, Deliberative, as the name implies tend to “deliberate for some time before completely adopting a new idea,” and have “some uncertainty or ambivalence about conservation.”

Cover crops are a widely recognized conservation practice that protects soil, water, and economic resources on the farm. Cover crops like cereal rye or hairy vetch are planted in addition to a cash crop, like corn or soybeans, to provide living roots that absorb and protect soil nutrients.

If I were to have a conversation with each of these four types of farmers – Conservationist, Productivist, Traditionalist and Deliberative – about cover crops, here’s the approach I would take.

Conservationist - For this type of farmer, cover crops are an easy decision. In fact, if this farmer is engaged in row crop agriculture, they likely already use cover crops. That’s because of the proven benefits of cover crops in terms of water quality and erosion. Research on a cereal rye cover crop incorporated into a corn-soybean rotation has been shown to reduce erosion by 68 percent and nitrate-N concentrations in water by 31 percent on average.
What Type of Cover Crop Farmer Are You? continued

Productivist - According to a ten-year, on-farm trial conducted by Iowa Learning Farms and Practical Farmers of Iowa, a cereal rye cover crop had an effect on yield for the majority of site-years on either corn or soybeans. In fact, the cover crop resulted in yield increases for soybeans in ten site-years and corn in three site-years. Or perhaps, it’s worth pointing out that cover crops can increase water infiltration and the water holding capacity of the soil. One of the most common benefits I hear from farmers about cover crops is that “it allows them to get in the field earlier in the Spring.” Getting in the field earlier means planting earlier, and planting date is the most important factor for corn or soybean yield. And if you raise cattle, cover crops are a win-win. Mark Schleisman, who farms in Calhoun County, has been able to improve the carrying capacity of his land, increasing his cow-calf pairs from 200 to 360 by grazing his cover crops. A study on Mark’s farm found that grazing his cover crops gave him an additional revenue of $28 per acre.

Traditionalist - For this type of farmer, I’d remind them that cover crops, or at least small grains like rye, wheat, and oats, are not new crops for Iowa. In 1955 in the Raccoon River Basin of Iowa about 40 percent of the landscape was planted to small grains. Recently, I was reading a historical survey of Irwin, Iowa in Shelby County, published in 1942. The study authors noted that it was a common understanding among residents of the town that corn should be planted “when the rippling in the wind of the small grain was easily observable.” Small grains as well as legumes like clover have a long history in Iowa. It’s growing only corn and soybeans that is the new approach.

Deliberative - For this farmer I would say start small. You don’t need to plant all acres to cover crops your first year. In fact, you probably shouldn’t. Start out with a handful of acres and start experimenting, consider your farming goals, and discover what works best for you. Reach out to people who can help you make management decision like ISU Field Agronomist Gentry Sorensen (641-430-6715, gentrys@iastate.edu) or Colton Meyer (712-737-2253, Colton.Meyer@iowaagriculture.gov) with the Iowa Department of Agriculture, who work in Northwest Iowa.

No matter what “type” of farmer you are, there’s a way to make cover crops work for you.

2022 Crop Management Decisions

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By the time this article is read, Iowa State University Extension and Outreach and USDA/FSA experts will have worked together at four regional meetings in Northwest Iowa to discuss 2022 Crop Year decisions. If you were able to attend, thank you. If unable, please see the meeting’s recap below in front of the March 15, 2022, USDA/FSA decision deadline.

For the fourth time (of the 5-year crop bill), producers will be asked to decide between ARC (revenue) and PLC (price) by March 15, 2022. NOTE: If during the last 5 years lower production was experienced, the producer is encouraged to speak directly with FSA on ARC-Individual programming decisions.

Based upon present and near-term projected commodity prices, which are above the reference prices ($3.70 corn; $8.40 soybeans), it appears unlikely that a 2022 crop year PLC subsidy payout will occur in October 2023. Comparatively, an ARC-CO, which protects against revenue loss, also appears less than likely, short of a serious crop yield loss.

Producers are encouraged to get fully informed by listening to the January 11 statewide webinar, conducted by USDA/FSA and ISU Extension and Outreach (recording online at Ag Decision Maker), or listening to other recorded webinars offered across the State of Iowa. As with the in-person meetings, webinar meeting content will place a heavier focus upon Ag Decision Maker tools (https://www.extension.iastate.edu/agdm/) and individual expectations for 2022 yields and prices.

Like in the past, different levels of federal crop insurance risk protection (ARC and PLC) will be decided. In addition, Supplemental Coverage Option (SCO) and/or Enhanced Coverage Option (ECO) endorsements can be tied to the multi-peril product (typically Revenue Protection or Yield Protection). Costs (premiums) should be evaluated by consulting with your trusted crop insurance agent. Please know some limitations apply when matching federal crop insurance decisions with the various endorsements.

2022 Crop Decisions/Operating Margins - Clearly, market price outcomes directly impact the above ARC v. PLC decisions. Notwithstanding, let’s talk about operating margins.

Market Prices – Continued robust demand, after the near-record corn and soybean domestic crop sizes during 3 of the last 4 years, have supported a general uptick to market prices, since the 2020 harvest. The 2022 market price projections look to slow/reverse those trends when comparing to the average market prices for 2021; however, South American drought conditions and the Ukraine/Russia situation, both could point to increased exports and prices; hence, stronger market prices. Current USDA corn and soybean per bushel market prices for 2022 are $4.80 and $10.50, down 12 and 17 percent, respectively from one year ago. Is pre-harvest marketing a part of the 2022 critical decision-making?

Expenses – Final production input costs will be an unknown until later in the year. At present, 2022 crop input costs have jumped dramatically, led by corn fertility (+ $115/acre, 20.0 percent) and soybeans (+$64/acre, 18.6 percent), when compared to 2021. The producer will want to have completed a keen by-enterprise analysis to know their own costs of production.

Margins – Based upon most recent input costs and market price analysis, breakeven operating market prices at/near $4/bushel and $10/bushel, respectively, for corn and soybeans, are reasonably projected. This compares to the most recent USDA average per bushel prices noted in the above paragraph. Ag Decision Maker is an online management decision tool that helps the producer by using what-if scenarios to plan. Is this the year to examine the crop rotation make-up or fertilization rates?
Upcoming Events

March 1 • Private Pesticide Applicator Continuing Instruction at 1:30 p.m. • Community Center, Primghar
March 1 • Private Pesticide Applicator Continuing Instruction at 7:00 p.m. • Community Center, Aurelia
March 2 • Ornamental and Turfgrass Applicators Continuing Instruction at 9 a.m. • All Counties
March 3 • Reshow: Commercial Manure Applicators Training at 9 a.m. • Primghar
March 3 • I-29 Moo University Webinar: Strategies for Selective Dry Off Treatments at Noon • Online
March 3 • Reshow: Confinement Site Manure Applicators Training at 1 p.m. • Primghar
March 3 • Reshow: Commercial Manure Applicators Training at 9 a.m. • Rock Rapids
March 3 • Reshow: Confinement Site Manure Applicators Training at 1 p.m. • Rock Rapids
March 7 • Private Pesticide Applicator Continuing Instruction at 7 p.m. • Convention Center, Le Mars
March 8 • Offices Closed for Statewide Conference • All Counties
March 9 • Certified Handlers Continuing Instruction at 9 a.m. • All Counties
March 10 • Private Pesticide Applicator Continuing Instruction at 7 p.m. • Community Center, Inwood
March 14 • Private Pesticide Applicator Continuing Instruction at 7 p.m. • Presbyterian Church, Sibley
March 15 • Reshow: Commercial Manure Applicators Training at 8:30 a.m. • Sibley
March 15 • Dairy Goat Webinar: Milking Systems & Facility Design at Noon • Online
March 15 • Reshow: Confinement Site Manure Applicators Training at 1:30 p.m. • Sibley
March 16 • Succession Planning Workshop at 10 a.m. • Spirit Lake
March 16 • Dairy Webinar: Incorporating Cover Crops into Your Forage System at Noon • Online
March 17 • Small Grain Silage for Beef Cattle Webinar at 8:30 a.m. • Orange City
March 17 • Soil Testing Interpretations and Recommendations at 9:00 a.m. • Convention Center, Le Mars
March 24 • Reshow: Commercial Manure Applicators Training at 8:30 a.m. • Orange City
March 24 • Reshow: Confinement Site Manure Applicators Training at 1 p.m. • Orange City
March 29 • Dairy Beef Short Course at 9:30 a.m. • Denny Sanford Premier Center, Sioux Falls
March 30 • Swine Production Seminar at 9:30 a.m. • Arrowwood Resort Conference Center, Okoboji

Field & Feedlot is published monthly by Iowa State University Extension and Outreach Agriculture and Natural Resources Field Specialists. Inquiries about the publication and/or how you can receive it in your inbox each month can be sent to Kiley Biedenfeld at kkauflman@iastate.edu or 712-957-5045.