

KUGLER COMPANY



THE FUTURE *of* FERTILIZER

www.KuglerCompany.com



KUGLER COMPANY



KUGLER COMPANY IS MORE THAN A BUSINESS

It's a family tradition that has been growing strong for over 100 years. What started as a small family operation has blossomed into a company that proudly serves farmers across the country, but we've never lost sight of our roots. Four generations of Kugler family leadership have shaped who we are today, keeping alive the values of hard work, honesty and care for the land and people we serve. When you work with Kugler, you're not just a customer—you're part of the family.

PLANT LOCATIONS

SOUTH DAKOTA



RAPID CITY

1650 Culvert St
Rapid City, SD 57701

CULBERTSON

71748 Railroad St
Culbertson, NE 69024

NEBRASKA



STERLING

20313 Riverside Dr
Sterling, CO 80751



ULYSSES

795 S Rd H
Ulysses, KS 67880

COLORADO

KANSAS





PRODUCTION QUALITY

FORMULATED TO FLOW SMOOTHLY & CLEANLY

You typically have a very small window of time to get into the field, especially at planting. If you have trouble with your fertilizer gumming up and plugging screens, you spend less time putting seed in the ground and more time fixing headaches. But that's exactly what happens with low quality liquid fertilizers that don't have Kugler Quality behind them.

We understand that time is money. So Kugler KQ fertilizers are of the highest quality—formulated to flow smoothly and cleanly—keeping you on the tractor instead of on the fritz. Here's another concern: When screens and orifices plug up, you don't always notice

right away. So you end up skipping rows or an entire section of your field. You've just affected yield—and that plant you'd hoped to perform for you has suddenly become just another weed. If self-applying is in your future, Kugler KQ fertilizers are a wise choice. At Kugler Company, we've developed proprietary technology that allows us to attain a level of quality that is unmatched. In other words, nobody else can make Kugler KQ fertilizers.

Competitors may try to copy Kugler KQ products, but the difference will show up when you apply them. By that time, it's a little late in the game.



KQ GRADES

ESSENTIAL NUTRIENTS

Apply just one or two nutrients in your fertilizer program, and you'll be missing out on the "Power of Synergism." KQ fertilizers are built around synergism. Each nutrient not only does its own job, but helps other nutrients to do theirs as well. Here's a look at the role of nutrients in Kugler KQ fertilizers.

- › **Nitrogen: The Superstar** – Nitrogen is the basic building block of the plant. It controls the uptake of all other nutrients and is essential for carbohydrate production. Different hybrids use Nitrogen in different amounts at different stages of growth. This fact, combined with the concern of increased nitrate levels in groundwater, makes a strong argument for split applications of smaller amounts of fertilizer—a program that perfectly fits Kugler KQ fertilizers.
- › **Phosphorus: The Energizer** – Phosphorus in Kugler KQ fertilizers is in the form of high quality polyphosphate. Phosphorus is used to form sugars and starches in the plant. It is critical to rapid seedling, root and shoot growth and is necessary for energy storage and transfer. Phosphorus helps build disease resistance and overcome the effects of soil compaction.
- › **Potassium: The Regulator** – Potassium (potash) helps keep water and food moving through the plant. It is involved in more than 60 enzyme systems, regulates the opening and closing of plant pores and is required in every major step in building protein. Potassium interacts with almost all other essential plant nutrients. It aids in photosynthesis and regulates Nitrogen uptake.
- › **Sulfur: The Synthesizer** – In Kugler KQ fertilizers, Sulfur is in the form of ammonium thiosulfate (ATS). Sulfur helps make more efficient use of Nitrogen and increase the availability of other nutrients. Sulfur is essential in developing plant protein, developing enzymes and forming chlorophyll.
- › **Zinc: The Activator** – Zinc helps the plant form chlorophyll and enzymes. Zinc also helps the plant absorb water—and water carries all the nutrients throughout the plant. Zinc helps in grain formation, root formation and protein synthesis—and is particularly important during early plant growth.





THE POWER OF SYNERGISM

1 + 1 = 3

The result of the group working together is greater than that of individual nutrients working alone!

The nutrients in each Kugler KQ fertilizer are specifically formulated to deliver better results than if you applied them separately. It's a concept called synergism—and it's basic to all Kugler KQ fertilizers.

Synergism is important because the relationship between nutrients is complex. For example, Sulfur and Potassium work together to help your crop better utilize Nitrogen.

Zinc aids in grain formation and helps the plant absorb water, which carries all nutrients throughout the plant system. Without these additional nutrients, your crop simply cannot reach its yield potential.

Kugler KQ fertilizers use the “Power of Synergism” to get the most out of the nutrients in your fertility program. And, when you add split applications throughout the growing season, you put that power right where your plants need it—when they need it most.



STRONG STARTS. SEASON-LONG STRENGTH.

KQ PHOSPHATE GRADES

Our phosphate grades are fine tuned and time tested to promote synergism, all the while providing a stable grade with ease of use. KQ555 “The Original” KQ grade is the pinnacle of synergism, the superior alternative to 10-34-0. Our KQ line of phosphate products are recommended in any strip till and 2x2 applications.

PRODUCT	FORMULATION	APPLICATION	SALT OUT
KQ555	8-20-5-5S-.5Zn	11.30 lbs/gal	Salt out 15-20
KQ555B	8-20-5-5S-.2Zn-.2B	11.30 lbs/gal	Salt out 15-20
KQ620	20-10-0-3S-.1Zn	10.87 lbs/gal	Salt out 10-15
KQ621	21-7-0-3S-.1Zn	10.80 lbs/gal	Salt out 5-10
KQ623	14-23-0-2S-.1Zn	11.30 lbs/gal	Salt out 5-10
KQ622	20-10-2-3S-.1Zn	10.95 lbs/gal	Salt out 35-40
KQ650	10-25-0-5S-.25Zn	11.30 lbs/gal	Salt out 0
KQ663	16-16-3-3S-.2Zn	11.20 lbs/gal	Salt out 15-20





TARGETED SOLUTIONS FOR MAXIMUM IMPACT.

KUGLER POTASH GRADES

Potash grades are tough to formulate, so don't settle for competitive products that separate. Stick with Kugler Quality Potash Grades. These products are great in strip-till applications, as well as a favorite for alfalfa growers looking to increase production.

PRODUCT	FORMULATION	APPLICATION	SALT OUT
KQ210	5-0-10-5S-.1Zn	9.70 lbs/gal	Salt out 15-20
KQ210B	5-0-10-5S-.1Zn-.1B	9.70 lbs/gal	Salt out 15-20
KQ212	2-0-12-5S-.25n	9.70 lbs/gal	Salt out 15-20
KQ260	8-0-6-8S-.4Zn	9.90 lbs/gal	Salt out 25-30
2-6-12	2-6-12	9.70 lbs/gal	Salt out 20
4-10-10	4-10-10	10.18 lbs/gal	Salt out 20



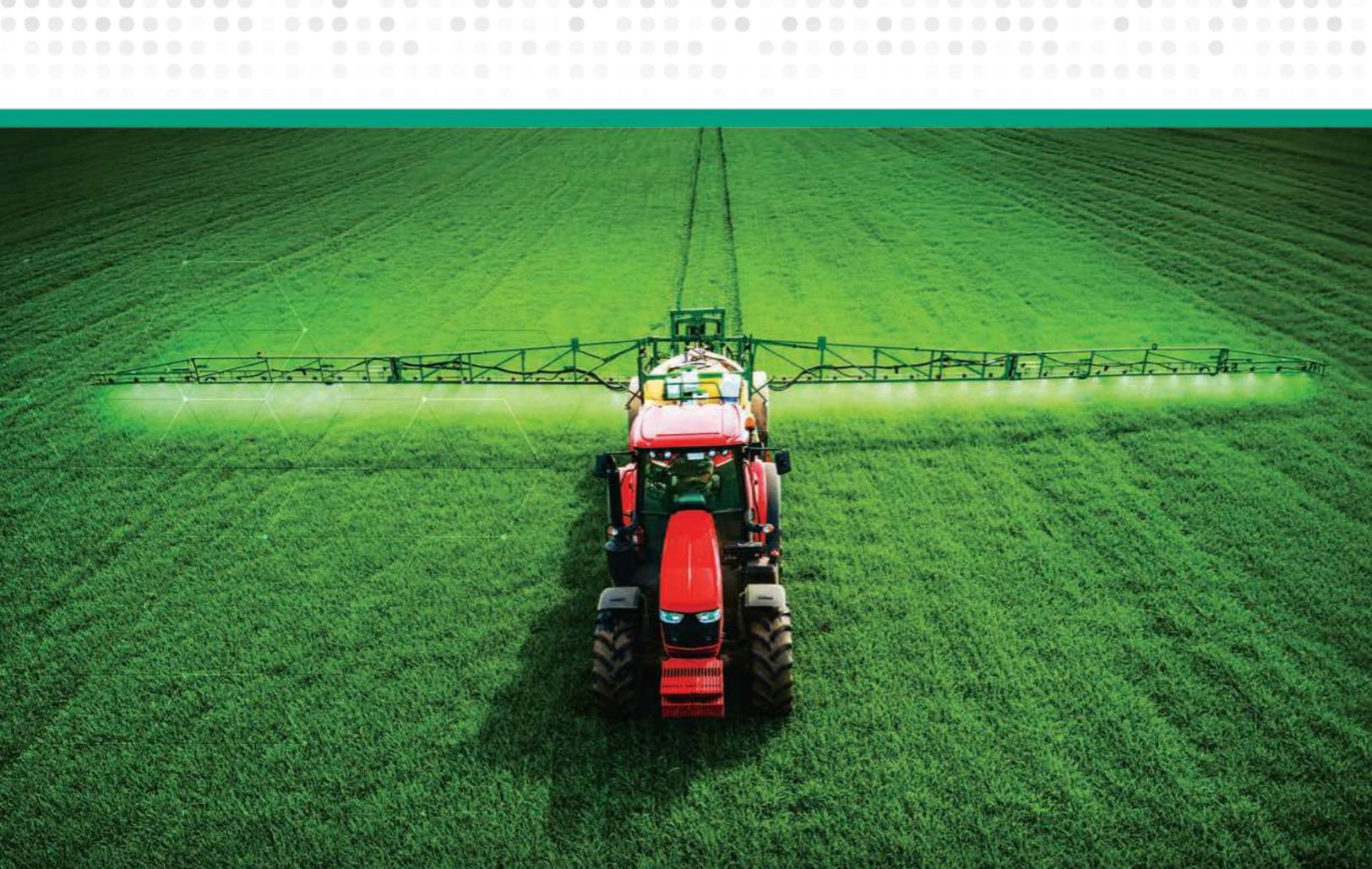
EFFICIENT FEEDING. LASTING GREEN.

KUGLER NITROGEN GRADES

Using the power of synergism, KQ Nitrogen grades are formulated to out perform traditional liquid Nitrogen products. These products are designed for Topdress on small grains, pre-plant broadcast application and pivot fertigation.

PRODUCT	FORMULATION	APPLICATION	SALT OUT
KQ330	26-0-3-3S	11.10 lbs/gal	Salt out 25-30
KQ342 <i>"The Topdress Champion"</i>	20-0-3-4S-5Cl-.2Zn	10.40 lbs/gal	Salt out 10-15
KQ342C	20-0-3-4S-10Cl-.1Zn	10.30 lbs/gal	Salt out 10-15
KQ350	26-0-3-5S	11.10 lbs/gal	Salt out 20-25
KQ353 <i>"The Original Pivot Grade"</i>	26-0-3-5S-.3Zn	11.16 lbs/gal	Salt out 20-25





KUGLER QUALITY MAKES THE YIELD DIFFERENCE.

STANDARD GRADES

FORMULATION	APPLICATION	SALT OUT
10-34-0	11.7 lbs/gal	Salt out 0
28-0-0	10.67 lbs/gal	Salt out 0
28-0-0-5S	11.03 lbs/gal	Salt out 0
30-0-0-3S	11.0 lbs/gal	Salt out 20-22
32-0-0	11.04 lbs/gal	Salt out 32
ATS (12-0-0-26S)	11.10 lbs/gal	Salt out 15-20
KQ2517 (0-0-25-17S)	12.2 lbs/gal	Salt out 0-10



IN-FURROW OR FOLIAR PUT NUTRIENTS IN THEIR PLACE.

LOW SALT STARTERS

Designed to be applied in-furrow, Kugler Low Salt Starters are manufactured to have a low salt index. Offering the safest options for delivering vital nutrients right under the seed. While ensuring seed safety, Low Salt Starters from Kugler showcase unmatched quality that translates to near zero plug ups.

- › **Traditional Low Salt Starters:** Standard High Ortho/Low Poly Green Products
- › **White Acid Low Salt Starters:** 100% Ortho Phosphate Clear Products
- › **Low Salt Starters with Slow Release Nitrogen:** Our Traditional Low Salts combined with KQ-XRN Technology



THE ORIGINAL
KUGLER

K-CARB PROSTART™

NPK WITH MICRO NUTRIENTS AND
CARBON MANAGEMENT

Planting season just got easier with **K-CARB ProStart™**, the revolutionary high ortho, low-salt starter that combines everything your crops need for a powerful beginning.

www.KuglerCompany.com



THE ORIGINAL
KUGLER

KS143SF

LOW SALT STARTER OR FOLIAR WITH
SLOW-RELEASE NITROGEN

KS143SF is a unique blend of slow-release Nitrogen coupled with high quality, low-salt fertilizer products. Kugler's exclusive **KS143SF** offers the highest quality plant nutrition with the flexibility of applications plus plant safety.

www.KuglerCompany.com



LOW SALT STARTERS

TRADITIONAL LOW SALT STARTERS

LS624

- › 6-24-6
- › 11.15 lbs/gal
- › Salt Out 5-10

Bulk Availability

Culbertson, NE
Sterling, CO
Ulysses, KS
Rapid City, SD

LS924

- › 9-24-3
- › 11.1 lbs/gal
- › Salt Out 5-10

Bulk Availability

Culbertson, NE
Sterling, CO
Ulysses, KS
Rapid City, SD

LS918

- › 9-18-9
- › 11.0 lbs/gal
- › Salt Out 5-10

Bulk Availability

Culbertson, NE
Sterling, CO
Ulysses, KS
Rapid City, SD

LS318

- › 3-18-18
- › 11.7 lbs/gal
- › Salt Out 5-10

Bulk Availability

Culbertson, NE
Sterling, CO
Ulysses, KS
Rapid City, SD

K-CARB ProStart

- › 7-22-4 with Fulvic Acid
- › 0.1Zn-0.06Mn-0.068Cu-0.07Fe-.005B
- › 11.1 lbs/gal
- › Salt Out 5-10

Bulk Availability

Culbertson, NE

LS173

- › 7-17-3
- › 0.95Zn-0.06Mn-0.07Cu-0.2Fe
- › 10.70 lbs/gal
- › Salt Out 5-11

Bulk Availability

Culbertson, NE

100% ORTHO WHITE ACID STARTERS

LSW318

- › 3-18-18
- › 11.6 lbs/gal
- › Salt Out 0-5

Bulk Availability
Sterling, CO

LS624W

- › 11.15 lbs/gal
- › Salt Out 10-15

Bulk Availability
Sterling, CO

LSW918

- › 9-18-9
- › 11.0 lbs/gal
- › Salt Out 5-10

Bulk Availability
Sterling, CO

LOW SALT STARTERS CONTAINING SLOW-RELEASE NITROGEN

KS1022

- › 10-20-2 with 19% Slow Release Nitrogen
- › 10.8 lbs/gal
- › Salt Out 5-10

Bulk Availability
Culbertson, NE

KS143SF

- › 14-14-3 with 40% Slow Release Nitrogen
- › 10.64 lbs/gal
- › Salt Out 2

Bulk Availability
Culbertson, NE

KS156

- › 15-15-6 with 15% Slow Release Nitrogen
- › 11.03 lbs/gal
- › Salt Out -15

Bulk Availability
Culbertson, NE





KQ-XRN SLOW RELEASE NITROGEN

**KQ-XRN IS THE BUILDING BLOCK OF ALL OUR
SLOW RELEASE PRODUCT OFFERINGS.**

Kugler KQ-XRN is a proprietary Nitrogen (28-0-0) formulation with 72% slow release Nitrogen. Foliar or in-furrow, Kugler KQ-XRN provides high-quality Nitrogen for your plants for a long, long time—up to 10 weeks in the soil and up to 35 days on the leaves. KQ-XRN is the perfect delivery system for crop protection chemicals. You can add herbicides, pesticides or fungicides—and boost the Nitrogen for your crop at critical growth stages while you address threats to your crop. When applied through foliar application, KQ-XRN adheres to and penetrates the leaves—staying on the job to feed your plants when they need Nitrogen the most.



SLOW RELEASE NITROGEN

PRODUCT	AVAILABILITY	DESCRIPTION
KQ-XRN <ul style="list-style-type: none">› 28-0-0 with 72% Slow Release Nitrogen› 10.6 lbs/gal› Salt out -10	Bulk 265G Tote 2x2.5g	Our highest concentration of Slow Release Nitrogen, KQ-XRN provides a large application window to apply Nitrogen without the risk of burn.
KQ-XRN 2530 <ul style="list-style-type: none">› 25-0-0 with 30% Slow Release Nitrogen› 9.90 lbs/gal› Salt out 0	Bulk	With the majority of the Nitrogen in a fast absorbing form, KQ-XRN 2530 is tailored to quick application windows such as dough stages in wheat to add protein.
KQ-XRN 2530B <ul style="list-style-type: none">› 25-0-0-.5B with 30% Slow Release Nitrogen› 10 lbs/gal› Salt out 0	Bulk	The same as our KQ-XRN 2530 but with the addition of Boron. Boron has been proven to increase yield in late season applications.
KS2075 <ul style="list-style-type: none">› 20-0-7.5-5s with 70% Slow Release Nitrogen› 11.03 lbs/gal› Salt out 0	Bulk 265G Tote 2x2.5g	Slow Release Nitrogen with the power of synergism, KS2075 combines Slow Release Nitrogen, with Potassium and Sulfur. Two key nutrients for late season applications. Sulfur, being essential for recovery, makes KS2075 a great product to help crops rebound from hail injury.
KS178C <ul style="list-style-type: none">› 17-0-0-0-8Cl with 61% Slow Release Nitrogen› 9.70 lbs/gal› Salt out 0	Bulk 265G Tote	Research has shown that Chloride plays an important role in suppression of fungal leaf and root diseases. KS178C combines Chloride with the industry's leading Slow Release Nitrogen.



SLOW RELEASE NITROGEN

PRODUCT	AVAILABILITY	DESCRIPTION
KS353X <ul style="list-style-type: none">› 23-0-3-5S-.3Zn› 10.87lbs/gal› Salt out	Bulk	Based on our Original Pivot Grade KQ353, KS353X combines the synergism with slow release Nitrogen. This product can be used alone, or blended with U N to incorporate additional nutrients and the benefits of KQ-XRN.
LS271 <ul style="list-style-type: none">› 27-0-0-1s› 10.36 lbs/gal› Salt out 0	Bulk	LS271 is a low-corrosion Nitrogen product including slow-release N +Sulfur. The formulation can be used with various application methods.
KS7030 <ul style="list-style-type: none">› 31-0-0 (20% SRN)› 10.90 lbs/gal› Salt out 0	Bulk	pre-blended mix of U N and slow-release Nitrogen.
KS1712 <ul style="list-style-type: none">› 8-0-17.5-12s› 11.70 lbs/gal› Salt out 32	Bulk	Blended with Potassium Thiosulfate, KS1712 delivers a robust amount of potash and Sulfur with the vehicle of KQ-XRN to get it into the leaf.



MICRONUTRIENTS AND CARBON PRODUCTS

HUMIC AND FULVIC ACIDS, ALONG WITH EDTA CHELATED MICRONUTRIENTS THAT ARE OFFERED BY THEMSELVES OR CUSTOM BLENDED INTO BULK LOADS.

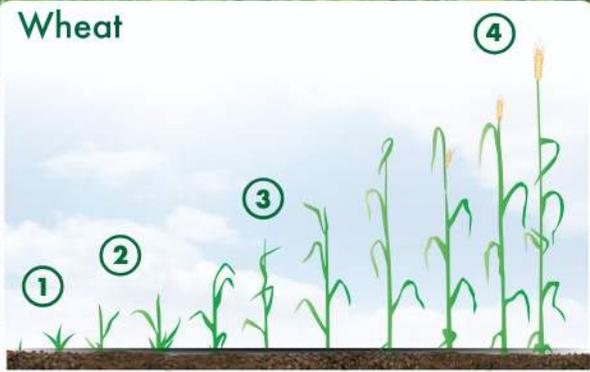
PRODUCT	WEIGHT	AVAILABILITY
KS MICROMAX 0.5Cu-1.0Fe-2.0Mn-2.0Zn-0.025B	10.40 lbs/gal	Bulk 265G Tote 2x2.5g
9% Zinc	10.91 lbs/gal	Bulk 265G Tote
7.5% Copper	10.66 lbs/gal	Bulk 265G Tote
6% Manganese	11.08 lbs/gal	Bulk 265G Tote
4.5% Iron	9.84 lbs/gal	Bulk 265G Tote
10% Boron	10.20 lbs/gal	Bulk 265G Tote
FA-20 20% Fulvic Acid	8.4 lbs/gal	Bulk 265G Tote
KHA1 20% Humic Acid	9.60 lbs/gal	Bulk 265G Tote 2x2.5g
KH2412 12% Humic Acid	9.05 lbs/gal	265G Tote





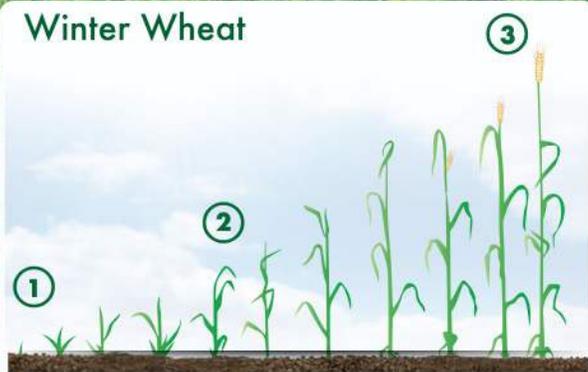
CROP RECOMMENDATIONS

Wheat



1. 4-6 gal LS624 + 1 pt KSMicroMax + 1 qt KHKPAC or 20 oz - 1 qt KHA1 (In-Furrow)
2. 1.5 gal KQ-XRN or KS178C + 1 pt KSMicroMax + Herbicide
3. 1.5 gal KQ-XRN or KS178C
4. 1.5 gal KQ-XRN2530 (for protein increase)

Winter Wheat



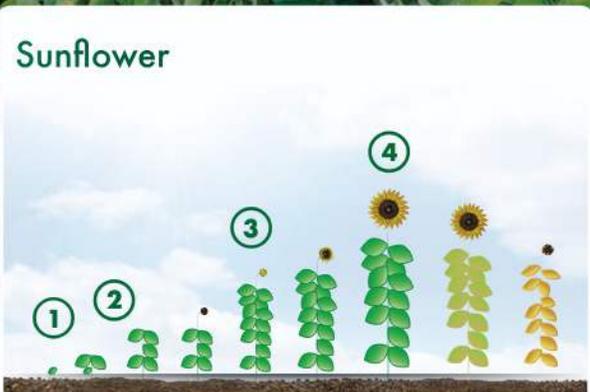
1. 3-6 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 5-10 gal KQ342 or KQ342C
3. 1-2 gal KQ-XRN or KS178C

Sorghum



1. 3-5 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5 - 1 gal KQ-XRN or KS2075 + Herbicide
3. 1.5 gal KQ-XRN or KS2075 or 2 gal KS178C
4. 1.5 gal KS2075 or KQ-XRN + Insecticide

Sunflower



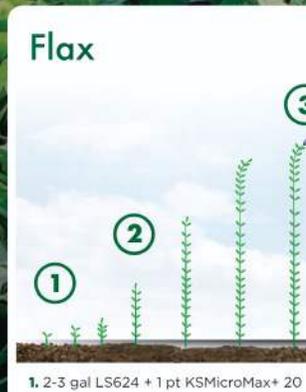
1. 2-3 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5-1 gal KQ-XRN or KS2075 + Herbicide
3. 1.5 gal KQ-XRN or KS2075
4. 1.5 gal KQ-XRN or KS178C + Insecticide

Barley



1. 3-6 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5 - 1 gal KS2075 or KQ-XRN + Herbicide
3. 1.5 gal KQ-XRN or KS178C + 1 pt KSMicroMax

Flax



1. 2-3 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5 to 1 gal KQ-XRN + Herbicide
3. 0.5 to 1 gal KQ-XRN + Herbicide



Corn



1. 3-6 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5-1 gal KQ-XRN or KS2075 + Herbicide
3. 1.5 -2 gal KS2075, KQ-XRN or 1.5-2 gal KSI435F + 1 pt
4. 1.5 -2 gal KQ-XRN, KS2075 or KSI78C
5. 1.5 -2 gal KQ-XRN or KS2075

Soybeans

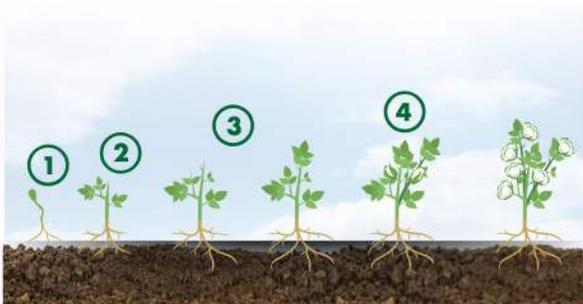


1. 2-3 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5 - 1 gal KSI435F + Herbicide
3. 2 gal KSI435F or 2 gal KSI78C
4. 1.5 gal KS2075 or KQ-XRN



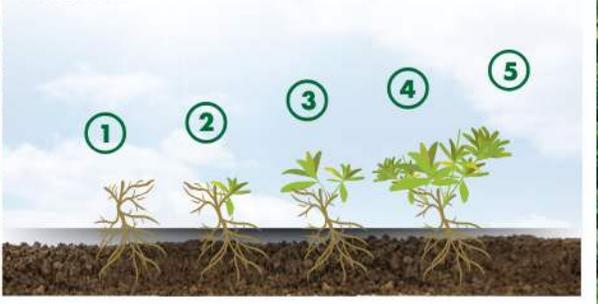
4. KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
Herbicide
KSI435F
Herbicide

Cotton



1. 2 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 + 20 oz to 1 qt KHA1 (In-Furrow)
2. 0.5-1 gal KQ-XRN + Herbicide
3. 1.5 gal KS2075
4. 1.5 gal KSI78C

Alfalfa

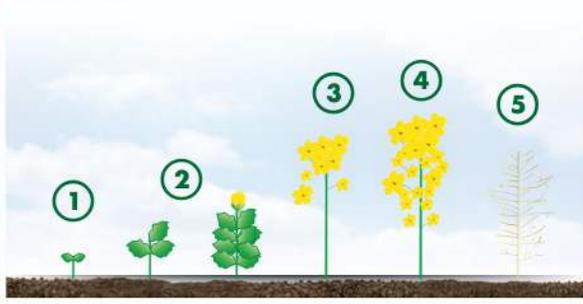


1. New stand: 15-20 gal KQ555B preplant
2. Established: 15-20 gal KQ555B or 5 - 7 gal LS624 early spring
3. After green up: 2 gal KS2075 or KSI435F + 1 pt KSMicroMax
4. 2nd cutting green up: 2 gal KQ-XRN or KS2075 or KSI435F + 1 pt KSMicroMax
5. 3rd cutting green up: 2 gal KQ-XRN or KS2075 + 1 pt KSMicroMax



5. 20 oz to 1 qt KHKPAC (In-Furrow)

Canola



1. 4-6 gal LS624 + 1 pt KSMicroMax + 1 qt KH2412 or 20 oz to 1 qt KHKPAC (In-Furrow)
2. 1.5 gal KQ-XRN or KS2075
3. 1.5 gal KS2075 or 2 gal KSI348C
4. 1.5 gal KS2075 or 2 gal KSI348C
5. 1.5 gal KSI435F

Oats



1. 3-6 gal LS624 + 2 pt KSMicroMax + 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-Furrow)
2. 0.5 - 1.5 gal KQ-XRN or KSI78C + Herbicide
3. 1.5 gal KQ-XRN or KSI78C

Sugar Beet



1. 4 gal LS624 1 pt KSMicroMax 1 qt KH2412 or 20 oz - 1 qt KHA1 (In-furrow)
2. If applying a Herbicide add 0.5-1 gal KQ-XRN
3. 2 gal KSI156 or KSI435F 2 pt KSMicroMax (Foliar)
4. 2 gal KS2075 5 weeks before harvest



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