

PRODUCT GUIDE



REGENAG™
SEED
Next Generation Growth™

The logo for REGENAG SEED is contained within a white oval with a blue border. It features a stylized green 'G' icon above the text 'REGENAG™' and 'SEED' in bold green letters. Below this, the tagline 'Next Generation Growth™' is written in a smaller, grey font.

Thank you for picking up our ReGenAg Seed Product Catalog. We are very proud of our current lineup and the recent launch of our ReGenAg Seed brand. We have included species and varieties of species that thrive within our region, Pennsylvania, and the states that surround it. We have made ideal selections of each product by testing and using it right here in our region to provide you with a regional advantage from a family-owned regional seed company here in Central Pennsylvania. The goals of each customer vary greatly, so understanding the values and management of each product is more important than ever to match your needs.

Why ReGenAg Seed as a brand? Regenerative agriculture improves soil health, primarily through practices that increase soil organic matter. We believe that before you sell all of your tillage equipment and build fencing to graze all of your acres, we can begin improving your soils by using proper crop rotations and products, implementing the proper living roots for the off-season, and utilizing management techniques that reduce the need for tillage. With the right mindset and setting small, attainable goals, we can reach our ultimate goals while remaining profitable. The ReGenAg Seed brand is more than a name for us; this brand offers high-quality products and is backed by years of experience in assisting others to improve soil health, increase yield, and meet individual goals for your operation for the next generation. Improving and preparing for the next generation is our ultimate goal.

Whether you are looking for a workhorse seed corn hybrid to excel in some challenging acres or a cereal grain and clover mix to provide erosion control and scavenging of nutrients, we have the best options for you. We test our products here in your backyard, whether in third-party replicated trials, strip tests, on-farm testing, or small-plot work. We feel it is imperative to make the best recommendations possible and provide the best quality seed options to meet and exceed your needs.

This catalog is a snippet of our total product lineup. If you do not see a product that you are interested in, please contact us. There is a good chance that we do carry that item or have access to it.

Please consider growing with us by allowing us to become a preferred seed provider for you and your operation.

Thank you,

Chris McCracken and Family



TABLE OF CONTENTS



Our History _____	3	Forage/Grain Sorghum _____	24
Trait Packages _____	4	Brassicas _____	25
Corn Characteristics/Options _____	5 - 14	Orchardgrass/Fescue/Timothy _____	26
Conventional Hybrids _____	7 - 8	RGA Cover Crop Mixtures _____	27
Traited Hybrids _____	9 - 14	Cover Crop Benefits _____	28
Alfalfa Options _____	15 - 16	Small Seed/Cover Crop _____	29-30
Clover Options _____	17	Planting Charts	
Additional Legumes _____	18	Conklin Forage Products _____	31-32
Rye Grass(Annual/Perennial) _____	19	ABM Inoculant Products _____	33-34
Forage Mixtures _____	20	Notes Page _____	35
Cereal Grain _____	21 - 22	Legal information _____	36-38
Summer Annual Forage _____	23		

Our History

The history of Pine Creek Seed Farm began in 1932, when Taylor A. Doebler Sr. began selling open-pollinated corn (West Branch Sweepstakes) from his new farm in Jersey Shore, PA. He named his new company Pine Creek Seed Farms. Many changes have surfaced since these days, with name revisions, additional family members stepping into various roles, and great, loyal employees helping the family business become a very successful seed enterprise over many decades. In 2002, after the passing of Taylor “Ted” Doebler, the third-generation members of the family had disagreements on the direction that the company should go. This difference of opinion eventually led to a split in the company, and a wall was built between these two successful businesses. Each business was eventually sold to the corporate world, and eventually the corporate world left a shell of what was once a lucrative seed operation.



In January of 2021, fourth-generation seedsman Chris McCracken and his family had a vision to purchase a portion of the property that held an exceptionally large seed corn production plant, warehousing, and a climate control area and build a new seed business. Though this business is much different than what his grandfathers started, with numerous facility changes to accommodate small seeds (cover crops, forages, turf, wildlife, and native grasses), the original vision is still the same. That vision is to build a seed business that helps local and regional agriculture by growing and supplying high-quality seed that is selected and developed for our region, our climate, and our needs. The ReGenAg brand within Pine Creek Seed Farm is a brand of quality and experience specifically for Pennsylvania and the surrounding states. Plan to visit sometime soon!

Trait Packages

Agrisure[®] Above

The most comprehensive above-ground insect control with the convenience of an integrated E-Z Refuge[®] seed blend.

Agrisure[®] GT

The Agrisure[®] GT trait provides tolerance to in-crop applications of glyphosate-based herbicides. This hybrid is an excellent option for refuge acres in a structured refuge operation.

Agrisure[®] GT/LL

The Agrisure[®] GT trait provides tolerance to in-crop applications of glyphosate-based herbicides. This hybrid is an excellent option for refuge acres in a structured refuge operation.

Duracade[®]

Multiple modes of action to control corn rootworm and corn borer, suppression of ear-feeding insects and an integrated E-Z Refuge[®] Seed blend.

Duracade Viptera[™]

The industry's most comprehensive solution for proactively protecting yield potential and field health, with an integrated E-Z Refuge[®] seed blend.

Viptera[®]

The most comprehensive above-ground insect control with the convenience of an integrated E-Z Refuge[®] seed blend.

ENLIST[®] WEED CONTROL SYSTEM— PROVEN CONTROL OF TOUGH WEEDS



Enlist Duo[®] and Enlist One[®] herbicides with Colex-D[®] technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use on PowerCore[®] Enlist[®] corn crops.

2,4-D choline

Glyphosate

Glufosinate

FOP Herbicides

Enlist Duo[®] COLEX-D[®] technology HERBICIDE

- Convenient proprietary blend of 2,4-D choline and glyphosate
- The two sites of action work together to deliver control of yield-robbing weeds and help prevent resistance

Enlist One[®] COLEX-D[®] technology HERBICIDE

- Straight-goods 2,4-D choline with additional tank-mix flexibility
- Provides additional tank-mix flexibility with Liberty[®] herbicide and other qualified tank-mix products, allowing for a customized weed control program to fit each farm

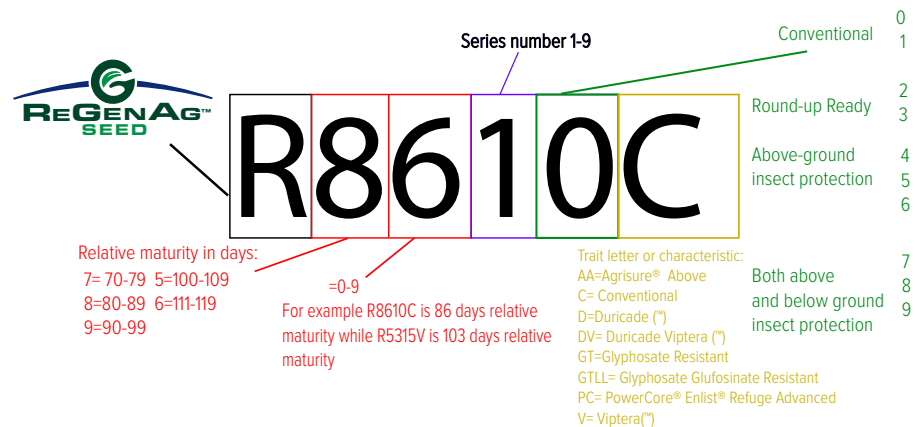
On-Target Application

- 90% less drift than traditional 2,4-D
- 96% less volatile than 2,4-D ester

Conventional Corn Hybrid Characteristics Chart

ReGenAg Variety	Relative Maturity (Days)	Plant Height	Ear Height	Suggested Population (1000's)	Ear Flex	Kernel Type	Moves South or North of Mat. Zone	High Yield Fields	Medium Yield Fields	Low Yield Fields and Stress	Stalk	Roots	Staygreen late intactness	Dry Down	Silage Rating
R8610C	86 RM	4	3	28-32	3	3	YES	5	5	5	5	5	5	4	5
R9110C	91 RM	4	3	24-34	3	3	YES	5	5	5	5	2	3	3	5
R9210C	92 RM	4	3	26-32	4	3	YES	4	5	5	4	4	3	3	5
R5020C	100 RM	4	3	25-34	5	3	YES	5	5	4	4	4	3	3	4.5
R5710C	107 RM	4	3	26-36	4	3	SOUTH	5	5	4	4	4	3	5	4.5
R6310C	113 RM	4	3	28-36	4	4	SOUTH	5	5	5	4	4	4	4	5
R6710C	117 RM	4	3	28-36	5	4	YES	5	5	3	5	4	4	3	3

1= Poor 5= Excellent



Traited Corn Hybrid Characteristics Chart

ReGenAg Variety	Relative Maturity (Days)	Trait	Type of Trait	Plant Height	Ear Height	Suggested Population (1000's)	Ear Flex (5 Flexed 1 Fixed)	Kernel Type (1 Soft 5 Hard)	Moves South or North of Mat. Zone	High Yield Fields	Medium Yield Fields	Low Yield Fields and Stress	Stalk	Roots	Dry Down	Staygreen late intactness	Silage Rating
R7811GT	78 RM	GT	GT	4	3	24-35	3	3	YES	4	5	5	4	5	5	3	4
R8614AA	86 RM	Agrisure® Above	Above Ground	4	3	28-32	3	3	YES	5	5	5	5	5	4	5	5
R9115V	91 RM	Viptera® + Artesian®	Above Ground	4	3	24-34	3	4	YES	5	5	5	5	2	3	3	5
R9315V20	93 RM	Agrisure Viptera® 3110A	Above Ground	4	4	28-32	3	4	NORTH	5	5	5	5	3	3	3	5
R9317D	93 RM	Duricide + Artesian®	Both	4	4	28-32	3	4	NORTH	5	5	5	5	3	3	3	5
R9616PC	96 RM	PowerCore® Enlist®	Above Ground	5	3	28-32	3	3	NORTH	5	5	4	5	5	3	5	5
R9713GTLL	97 RM	Agrisure GT	GT	4	3	24-38	5	4	YES	5	5	5	5	3	3	5	5
R9916PC	97 RM	PowerCore® Enlist®	Above Ground	4	3	26-38	4	4	YES	4	5	4	4	4	4	4	5
R9917D	99 RM	Duricide	Both	4	4	28-38	2	4	NORTH	5	5	4	5	3	3	5	4
R5014AA	100 RM	Agrisure® Above	Above Ground	3	3	26-38	3	3	YES	5	5	5	5	5	3	5	3
R5318DV	103 RM	DuricideViptera™	Both	5	4	26-38	3	5	YES	5	5	4	5	5	3	3	5
R5315V20	103 RM	Agrisure Viptera® 3110	Above Ground	5	4	26-38	3	5	YES	5	5	4	5	5	3	3	5
R5327D	103 RM	Duricide	Both	4	3	26-35	5	3	SOUTH	5	5	4	4	3	3	4	5
R5416PC	104 RM	PowerCore® Enlist®	Above Ground	4	4	28-34	4	3	YES	5	5	4	5	3	4	5	5
R5917D	109 RM	Duricide	Both	4	3	28-32	5	4	YES	5	5	4	4	4	3	5	4
R6015V	110 RM	Viptera® + Artesian®	Above Ground	3	3	24-34	5	3	SOUTH	5	5	5	4	3	5	4	3
R6018DV	110 RM	DuricideViptera™	Both	3	3	24-34	5	3	SOUTH	5	5	5	4	3	5	4	3
R6316PC	113 RM	PowerCore® Enlist®	Above Ground	4	3	28-34	3	4	YES	5	5	4	5	4	4	5	4
R6416PC	114 RM	PowerCore® Enlist®	Above Ground	4	4	28-36	4	4	SOUTH	5	5	4	4	3	3	4	3
R6812GT	118 RM	GT	GT	5	3	25-34	5	4	SOUTH	5	4	4	5	4	3	5	4

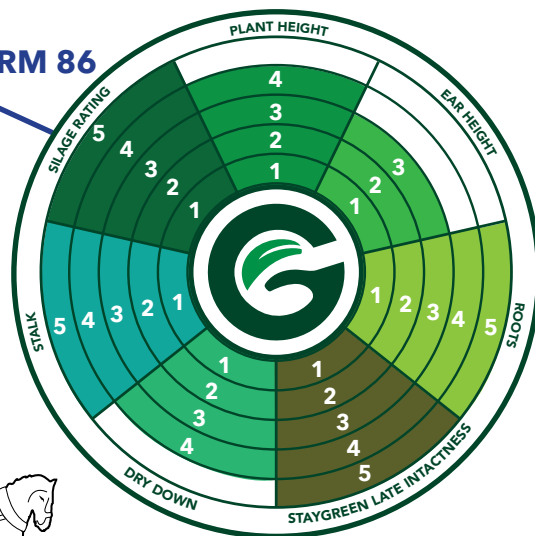
Conventional Hybrid Options

R8610C

RM 86

- Dual purpose
- High yield grain and silage
- Great stalks and roots

Medium population and adapts to a wide variety of soils. Can successfully move north and south of zone. Great stalks and roots. Good disease package and stays green. Semi-flex ear with medium test weight.

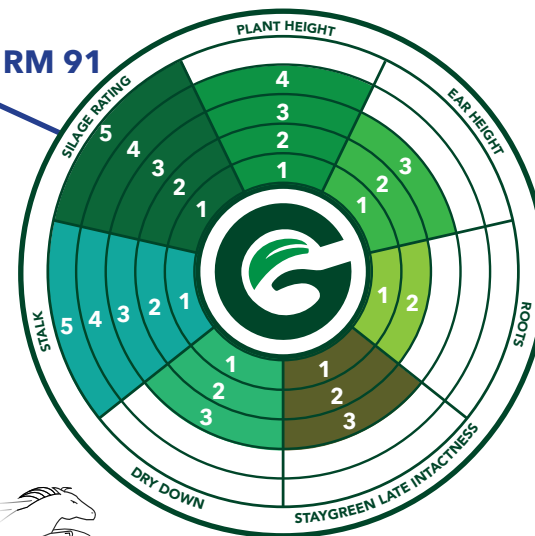


R9110C

RM 91

- Excellent stalk strength
- High yield grain and silage
- Good no-till emergence and vigor

This is an attractive hybrid with very good agronomics and yield for its maturity. Husks flair to give good dry-down. Performs well on multiple soil types. Excellent roots and good stalks. Works well at lower populations.

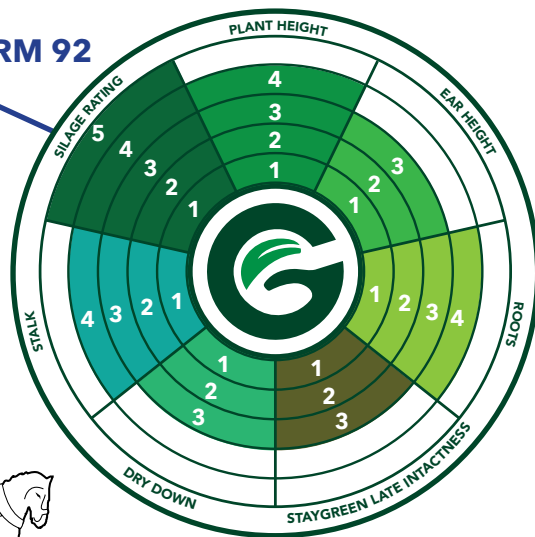


R9210C

RM 92

- Conventional Hybrid
- Top end yields
- Good dual purpose

Medium population and works on a wide variety of soil and fertility situations. Great silage quality. Semi-flex girthy ear with good test weight. Moves north and south.

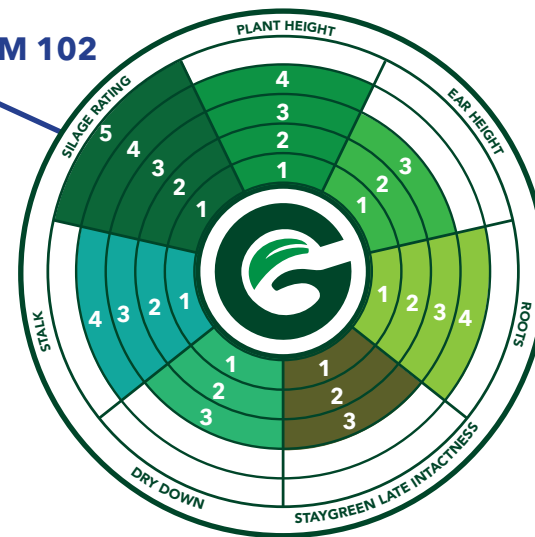


R5020C

RM 102

- Stable high yield grain and silage
- Good stalks and roots
- Large ears

Likes low to medium populations in medium to high yield situations. Flex type girthy ear with medium test weight. Dual purpose, full plant with large ear. Strong herbicide response.

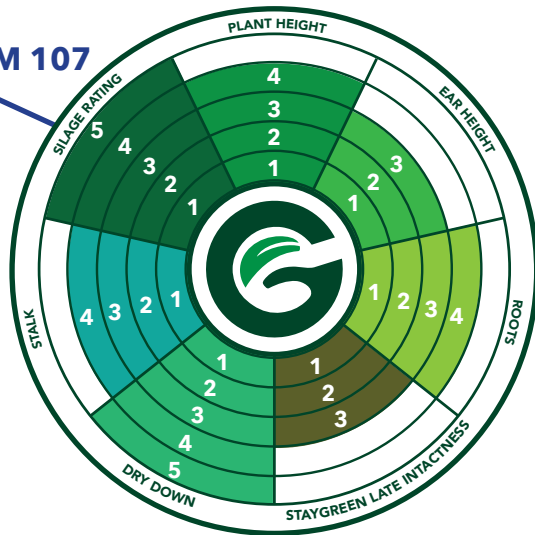


R5710C

RM 107

- Good dual purpose
- High yield grain and silage
- Flex-Ear with great girth

Likes medium populations on a variety of soils. Flex ear with great girth and medium test weight. Fast dry down. Good stalks and roots. Good for use in corn after corn. Good response to fungicide.

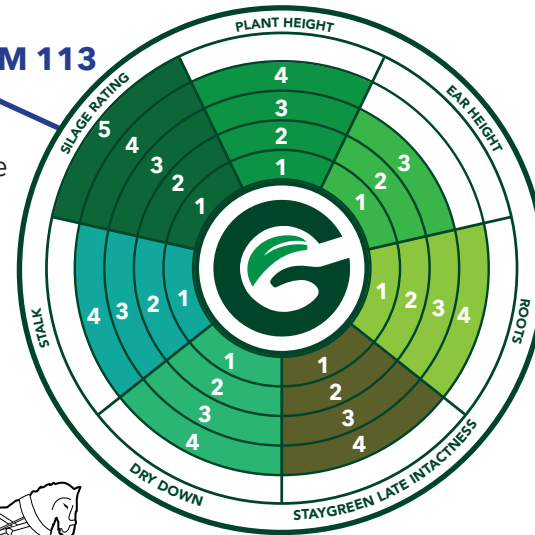


R6310C

RM 113

- Consistent performer
- Excellent for grain and silage
- Great stalks and roots

Medium to high population hybrid that works well with most types of soils. Ear has good flex, girth, length, test weight, and husk cover. Great stalks and roots. Excellent silage quality and quantity. Great staygreen and fall intactness.

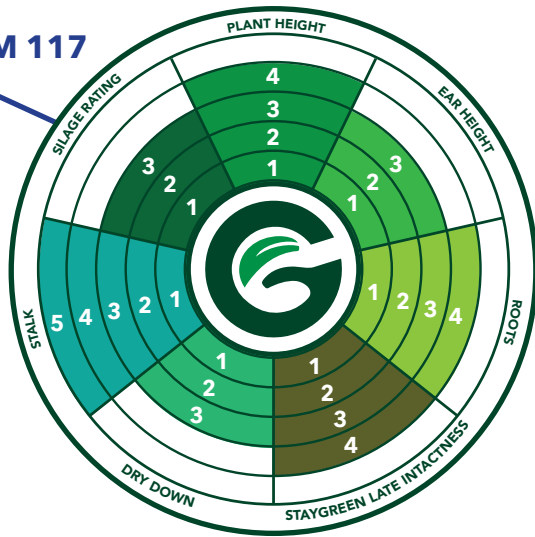


R6710C

RM 117

- Consistent high yield
- Great stalks and roots
- Outstanding health

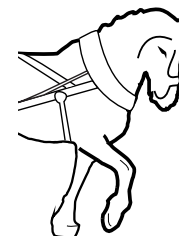
Best at medium to high populations on highly productive soils. Flexible girthy ear with good test weight. Excellent stalk strength, plant intactness, and health. Good for corn after corn. Good against GLS, NCLB, Anthracnose, and Diplodia.



Key:



Racehorse



Workhorse

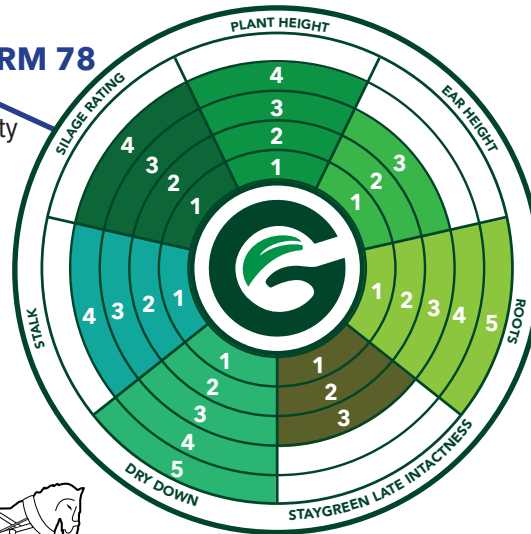
RM=Relative Maturity

Traited Hybrid Options

R7811GT RM 78

- Early glufosinate tolerant variety
- Great agronomics and health
- Moves north and south

Great agronomics and yield for its maturity. Husks flair to give good drydown. Performs well on multiple soil types. Excellent roots and good stalks. Works well at lower populations.

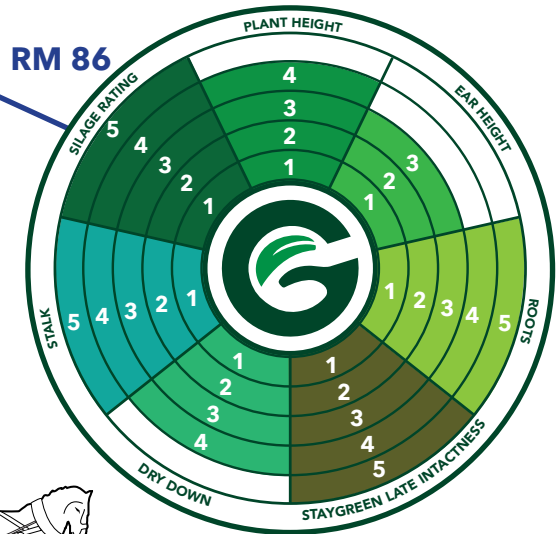


Agrisure[®]GT

R8614AA RM 86

- Outstanding on various soils
- High yield grain and silage
- Great stalks and roots

Medium population and adapts to a wide variety of soils. Above ground insect protection. Can successfully move north and south of zone. Great stalks and roots. Good disease package and stay green. Semi-flex ear with medium test weight.

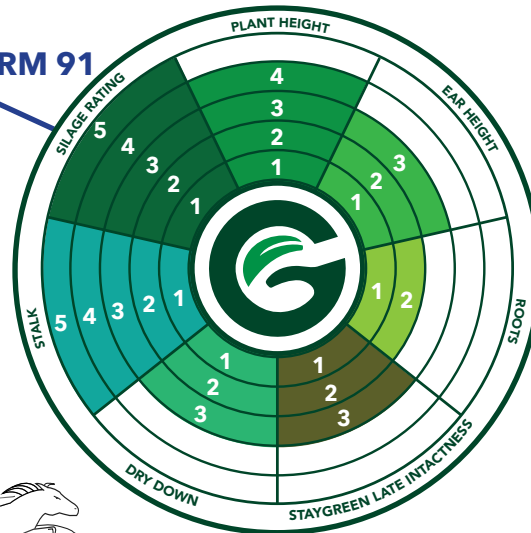


Agrisure[®] Above

R9115V RM 91

- Excellent stalk strength
- High yield grain and silage
- Good no-till emergence and vigor

Excels at higher and lower populations on various soil types. Moves north and south of zone. Semi-Flex ear with medium test weight and good tip cover. High yielding dual purpose. Outstanding stalks and roots.

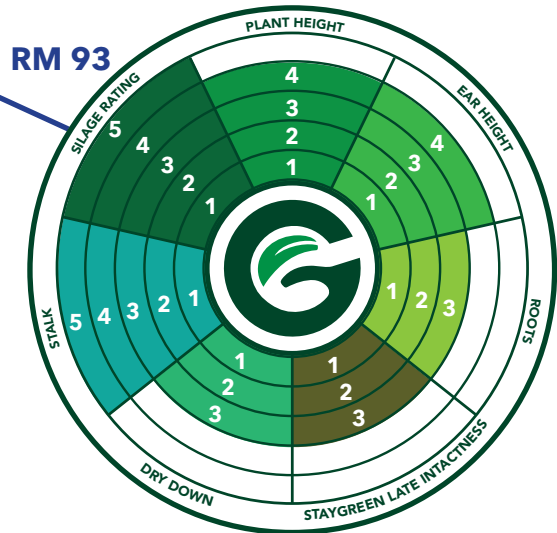


Viptera[®]

R9315V20 RM 93

- Good for no-till
- Insect protection above ground and ear
- Good dual purpose

Use medium population and works on a wide variety of soil and fertility situations. Great silage with large plant. Semi-flex girthy ear with good test weight. Great seedling vigor for no-till situations.



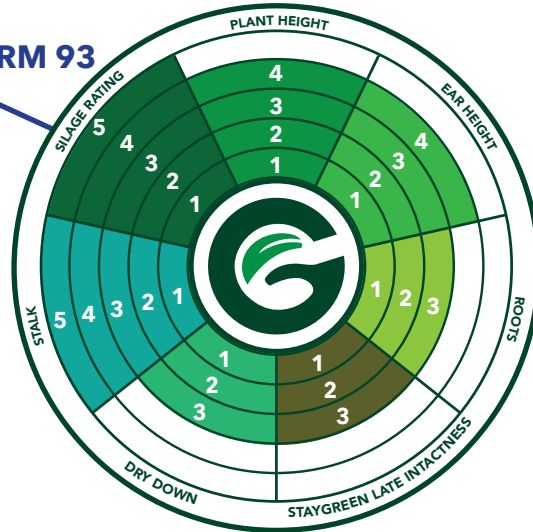
Viptera[®]

R9317D

RM 93

- Good dual purpose
- Above and below ground insect protection
- Good no-till emergence and vigor

Medium population and works on a wide variety of soil and fertility situations. Great silage with large plants. Semi-flex girthy ear with good test weight.

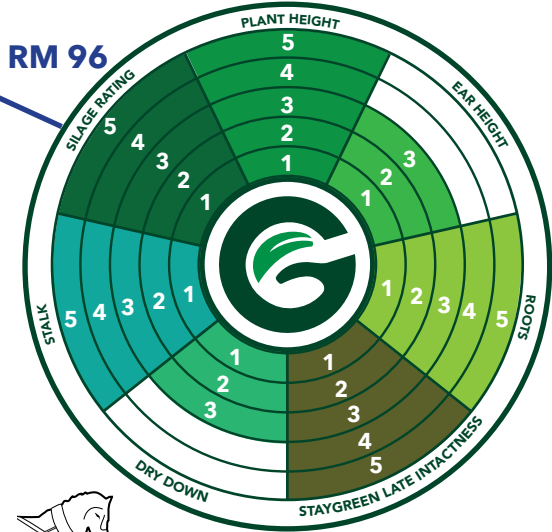


R9616PC

RM 96

- Great disease package
- Excellent performer from north to south
- Completes well with later maturities

Fantastic dual purpose option in the North and a great grain option in the South. This hybrid travels well and has a great late season stalks. The semi-flex ear and plant health allow for great versatility from low to high populations.

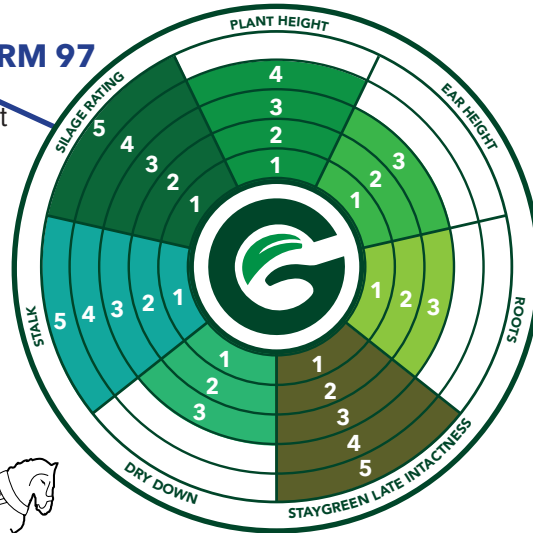


R9713GTLL

RM 97

- Glyphosate Glufosinate Resistant
- High yield grain and silage
- Late season intactness

Works well with different planting rates and on various soil situations. Moves south early and north as a full season. Flex type ear with excellent grain quality. High production of grain and silage.

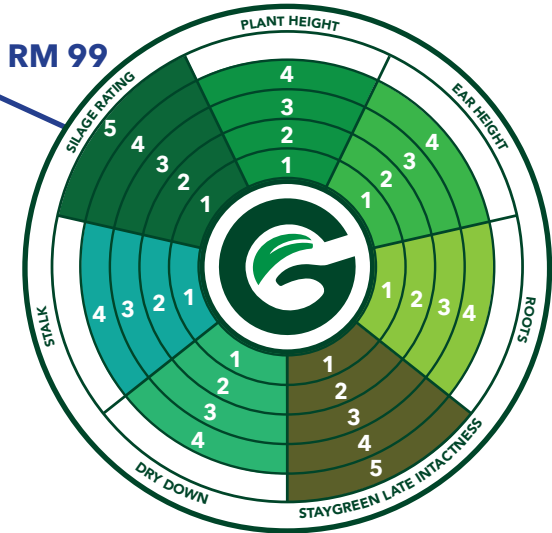


R9916PC

RM 99

- Exceptional plant health
- Fast emergence and early growth
- Great disease package

Great option for no-till / minimum till management practices as it has tremendous seedling vigor and will handle higher populations. This hybrid is offered with the PowerCore® Enlist® trait for superior above ground insect protection.



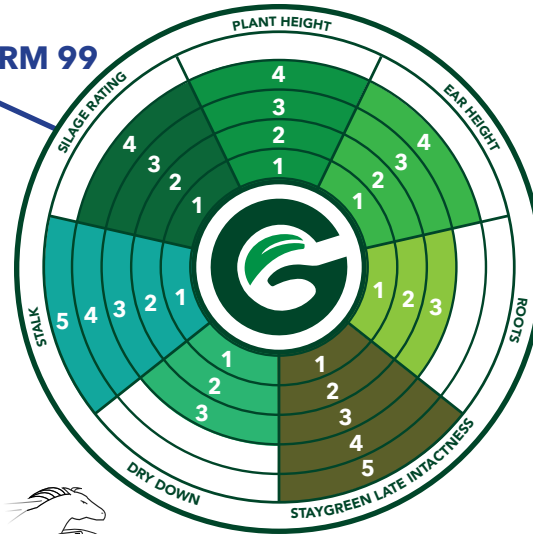
Traited Hybrid Options

R9917D

RM 99

- Above and below insect protection
- High yield grain and silage
- Good no-till emergence and vigor

Excels at medium to high populations on average or better soils. Semi-flex ear with good grain quality. Can be moved north of zone as a full season hybrid. Good against gray leaf spot and eye spot. Good stalks and stays green.



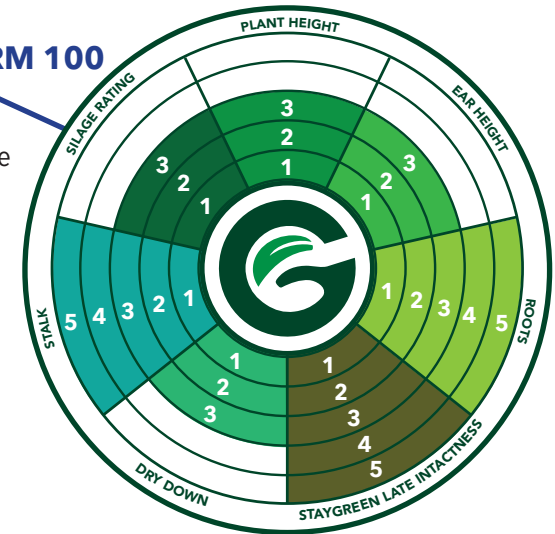
Duracade

R5014AA

RM 100

- Excellent consistent yield
- Above ground insect resistance
- Good no-till emergence and vigor

Medium to high populations on all soil conditions. Semi-Flex girthy ear with good test weight. Healthy with late season intactness and gray leaf spot tolerance. Can be moved north and south of its maturity zone. Good disease package and stay green. Semi-flex ear with medium test weight.



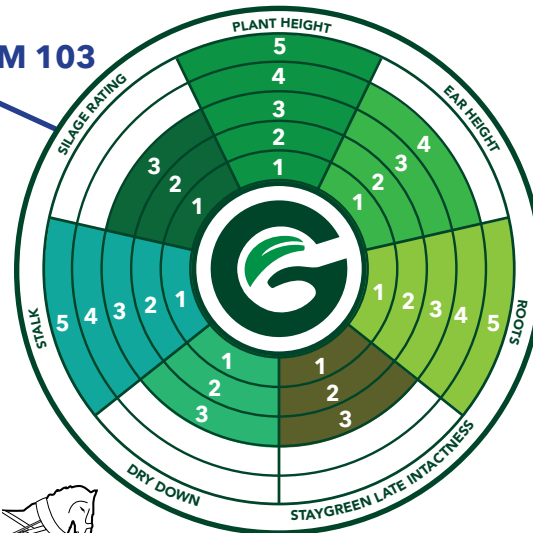
Agrisure Above

R5318DV

RM 103

- Excellent top end yield
- Great broad insect protection
- Good no-till emergence and vigor

Medium to high populations in average or above soil situations. Semi-flex ear with excellent test weight. Outstanding stalks and roots. Good dual purpose hybrid. Good against northern corn leaf blight and Goss's Wilt.



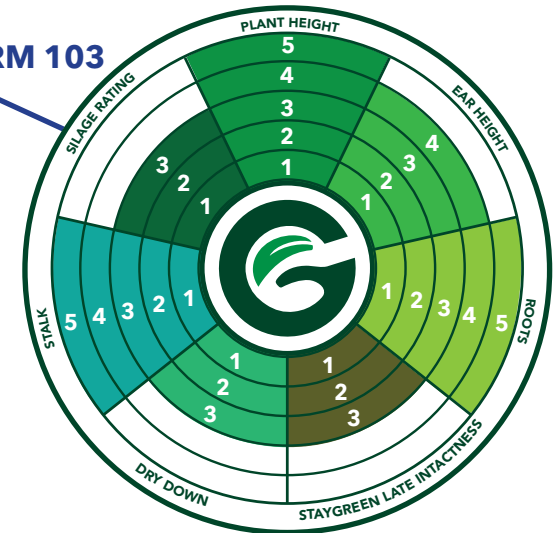
Duracade Viptera

R5315V20

RM 103

- Excellent top-end yield
- Insect protection above ground and ear
- Good for no-till

Use medium to high populations in average or above soil situations. Semi-flex ear with excellent test weight. Outstanding stalks and roots. Good dual purpose hybrid. Good against Northern Corn Leaf Blight, Tar Spot, and Goss's Wilt.



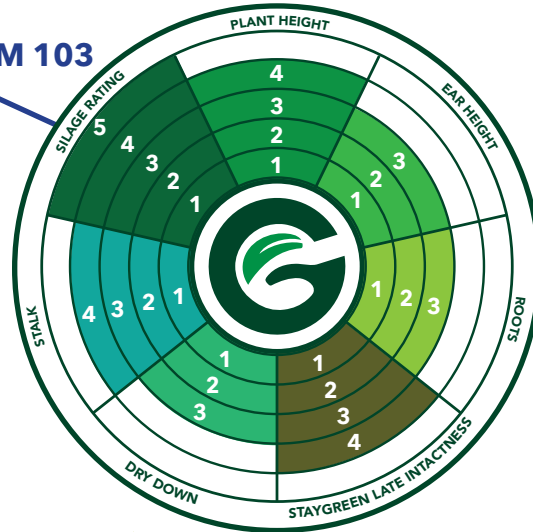
Viptera

R5327D

RM 103

- Great disease package
- High yield grain and silage
- Great emergence and vigor

Plant at medium to medium high populations on medium to high productivity soils. Girthy flex-ear with good tip cover. Good disease ratings. Good late season plant integrity and moves south of zone.

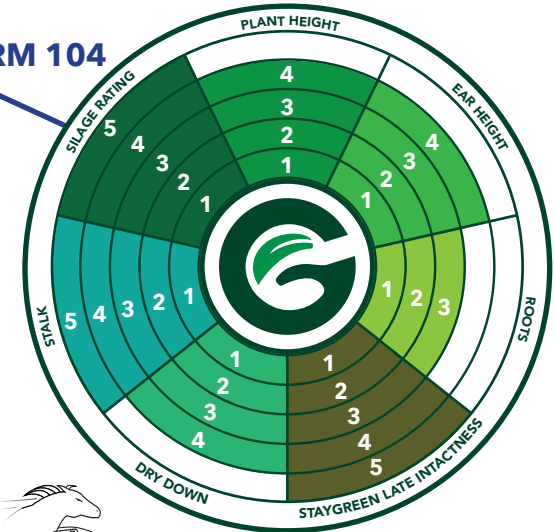


R5416PC

RM 104

- Great disease package
- Widely adapted hybrid
- High yield grain and silage

This hybrid excels in high and medium yield environments with a top disease package. Very strong agronomic characteristics make this hybrid a favorite for top producers looking for a hybrid in that 100 to 108 day maturity range.

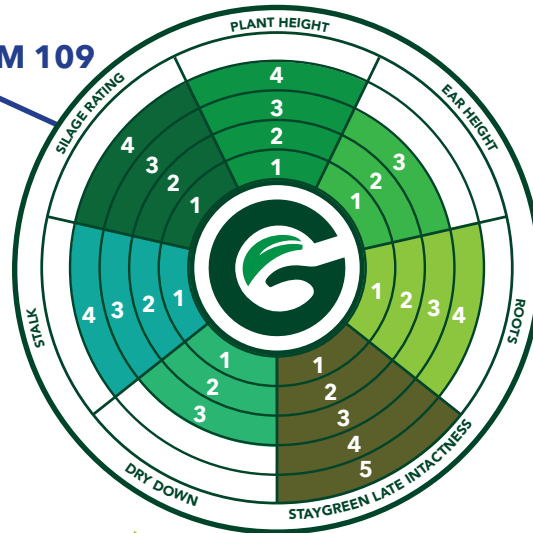


R5917D

RM 109

- Exceptional plant health
- Fast emergence and early growth
- Great disease package

Great option for no-till / minimum till management practices as it has tremendous seedling vigor and will handle higher populations.

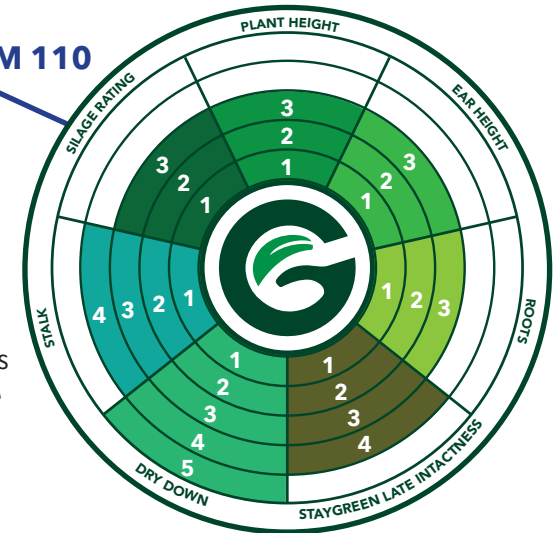


R6015V

RM 110

- Exceptional plant health
- Fast emergence and early growth
- Great disease package

Great option for no-till / minimum till management practices as it has tremendous seedling vigor and will handle higher populations.

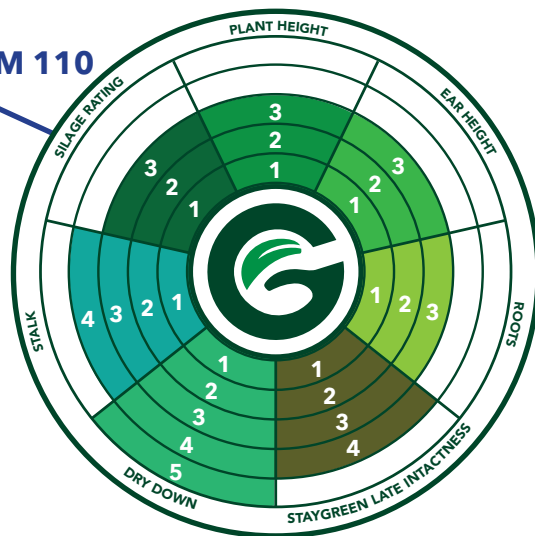


Traited Hybrid Options

R6018DV RM 110

- High stable grain yield
- Great broad insect protection
- Good no-till emergence and vigor

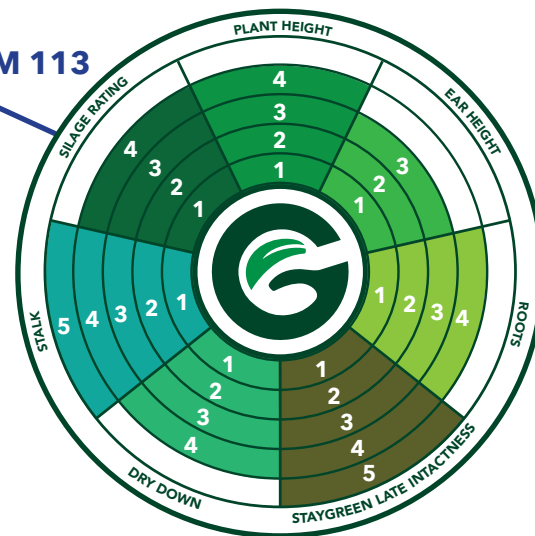
Use lower to medium populations on various soil conditions. Good seedling vigor for no-till situations. Flex ear good test weight. Moves South. Resists Southern Corn Leaf Blight and Goss's Wilt. Likes a timely harvest.



R6316PC RM 113

- Excellent top-end yield
- Above average NCLB and tar spot tolerance
- Good no-till emergence and vigor

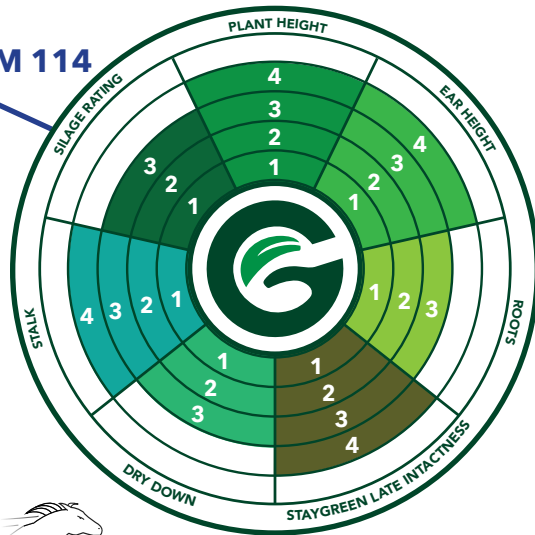
This hybrid gives that extra yield punch in Southern PA / Maryland. This is a great companion hybrid with both R6416PC and R6516PC.



R6416PC RM 114

- Top performer within maturity
- Long consistent ears and large kernels
- Grain corn or ear harvest options

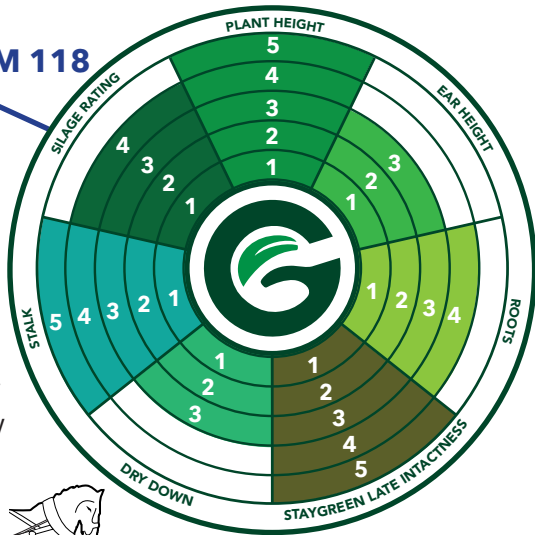
For top producing acreage, this is the hybrid. R6416PC is a race horse hybrid that will continue to top many yield trials and corn acre contests. This hybrid is a good companion hybrid with R6316PC.



R6812GT RM 118

- Stable high grain and silage yields
- Glyphosate resistant
- Excellent stalk health

Use low to moderate populations on all soils. Flex type ear with good test weight. Great emergence and seedling vigor for early planting or no-till. Plant is healthy with outstanding stalks and intactness. Rugged for Southern areas, with a full canopy.



Planning Cover Crops?



The common misconception of using chemicals is that it creates a barrier through possible residuals that may affect growth of some cover crops. We at Pine Creek Seed Farm promote forward thinking/ a 2- step ahead approach in planning crop rotations involving chemistry within your field. Please consult with your Ag Chem dealer on residual effects of your chemicals and whether desired cover crops for in the fall will work or not.

Alfalfa Options



RGA REIGN SQ ASN

Superior digestibility, high yielding, and great dairy quality.



RGA REIGN SQ OC

OMRI approved coating and rhizobia



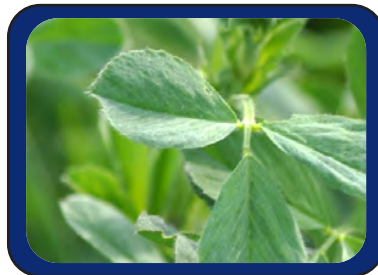
RGA RAPTOR PLH OC

High yielding potato leafhopper variety that provides good control under moderate to heavy infestations.



RGA REAP CR AN

Rhizomatous stemmed, excellent for both pasture and hay, and great for fixing wildlife



RGA CHOICE ASN

Premium alfalfa that is great for short-term rotations.



RGA REACT BR ASN

High yielding, branch-rooted, and a great option for heavier soils.



RGA RESULT MF ASN

High performing multi-flora with great auction hay due to leafiness.



RGA VERNAL ALFALFA RAW

Another premium alfalfa option

LABEL KEY:

- BR**= Branch Root
- CR**= Creeping Root
- AN**= Apron, Nitrogen Gold
- ASN**= Apron, Stamina Nitrogen Gold
- OC**= OMRI Approved Coating
- RAW**= No coating

RGA ALFALFA AGRONOMIC CHARACTERISTICS

RGA Alfalfa Variety	Fall Dormancy	Winter Hardiness	Bacterial Wilt	Verticillium Wilt	Fusarium Wilt	Anthraco	Aphanomyces Race 1	Aphanomyces Race 2	Potato Leafhopper	Phytophthora Root Rot	DRI Disease Rating Index
RGA Reign SQ™	4	1.8	HR	HR	HR	HR	HR	HR	S	HR	34/35
RGA Result MF™	4	1.5	HR	HR	HR	HR	HR	R	S	HR	34/35
RGA Raptor PLH™	4	2.2	HR	HR	HR	HR	HR	R	HR	HR	30/30
RGA React BR™	4	2.0	HR	HR	HR	HR	HR	NR	S	HR	30/30
RGA Reap CR™	4	2.0	HR	HR	HR	HR	HR	R	S	HR	30/30
RGA Choice Blend™	3/4	2.4	HR	HR	HR	HR	NR	NR	S	HR	28/30

DISEASE KEY: **HR** (Highly Resistant) **R** (Resistant) **S** (Susceptible) **NR** (No Rating)

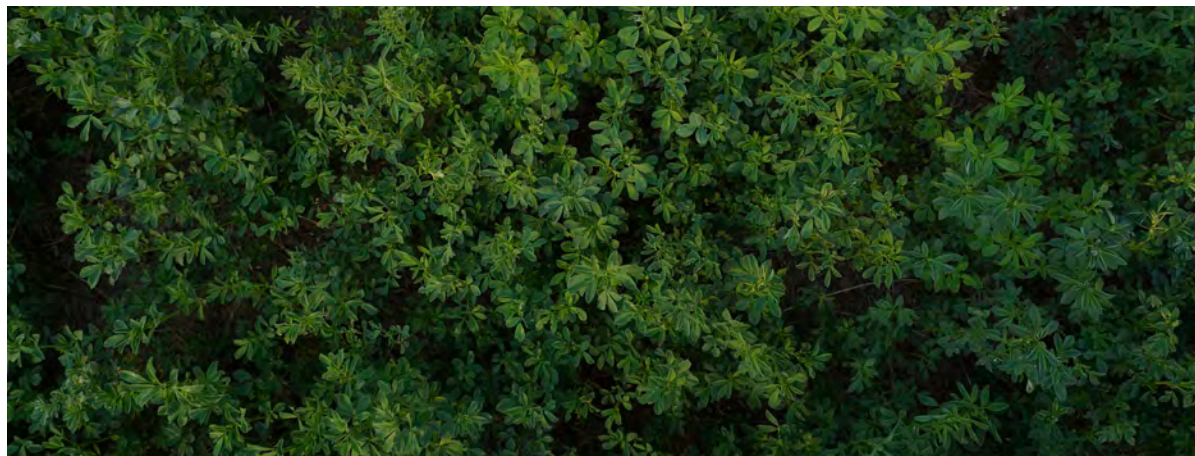
ALFALFA MANAGEMENT TIPS

Seeding Rate: 15–20 LBS per acre alone; 8–12 LBS per acre in mixtures

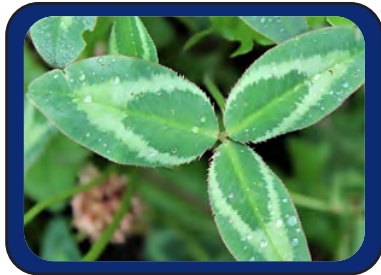
Seeding Depth: Shallow, up to 1/4 inches deep

Life Cycle: Perennial

Harvest: Early bloom; last cutting is recommended 3 to 4 weeks prior to killing frost

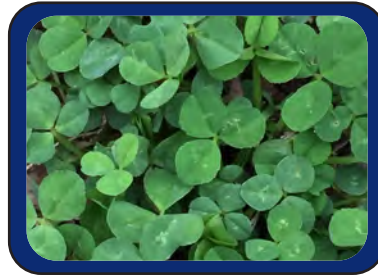


Clover Options



RGA RED CLOVER

High performing with exceptional persistence. Offered coated or raw.



RGA LADINO CLOVER

A top performing, large-leafed variety with great persistence that is excellent for grazing.



BALANSA CLOVER

New, earlier option. A great legume for forage and cover cropping.



RGA WHITE CLOVER

Intermediate type with high stolon capacity.



CRIMSON CLOVER

A fast growing, proven winter annual clover



BERSEEM CLOVER

Very high tonnage and a great annual interseeding option with alfalfa.

CLOVER MANAGEMENT TIPS

Seeding Rate: Varies greatly among various clover species

Seeding Depth: Shallow, most are 1/4 to 1/2 inches deep

Life Cycle: Perennial and annual depending on species

Harvest: Depends on species and use

ADDITIONAL CLOVERS AVAILABLE

*May include yellow blossom/alsike clovers

Additional Legumes



BIRDSFOOT TREFOIL

Leo type and a great choice for moderate soils.



SUNN HEMP

Great summer legume option with excellent biomass.



SPRING PEAS

4010 or Dundale Forage Spring Peas.



HAIRY VETCH

An improved type with earlier flowering in the spring.



KEYSTONE WINTER PEAS

Excellent forage, white flowered, and with great nitrogen fixation.



COWPEAS

Great summer performance for cover crops or forage. Red Ripper and Iron and Clay varieties offered.

Ryegrass/Other Grasses



PRG 2N PERENNIAL RYEGRASS

Forage type diploid perennial ryegrass with very dense sward. Perfect for cover crop use.



PRG 4N PERENNIAL RYEGRASS

Rapid upright growth, high sugars, and increased forage. Excellent disease tolerance with high nutritional feed value.



IRG 4N ITALIAN RYEGRASS

Tetraploid Italian ryegrass with tremendous quality and energy.



ARG 2N ANNUAL RYEGRASS

Diploid annual ryegrass with deep roots and thick sward. Makes a great ground cover.



ARG 4N ANNUAL RYEGRASS

Tetraploid annual ryegrass with increased yields and sugars.



RGA KENTUCKY BLUEGRASS

True forage type that is great for abused pastures and paddock areas.



RGA SMOOTH BROMEGRASS

Long-living perennial grass with excellent drought tolerance and is very versatile.



RGA FESTULOLIUM

Fast-establishing, tall fescue x tetraploid ryegrass cross. Great for hay production and grazing applications.

Forage Mixtures



OATS PEAS MIX

Perfect combination of forage peas and spring oats with excellent standability.



RGA VERSA MIX

Ideal balance of improved varieties of orchardgrass, soft-leaved tall fescue, festulolium, and perennial ryegrass.



RGA GRASS CLOVER MIX

Diverse mixture of improved orchardgrass, soft-leaved tall fescue, clover, festulolium, annual ryegrass, and white clover.



RGA AP GRASS MIX

Proven mixture of orchardgrass, timothy, and perennial ryegrass.



RGA HAYMAKER MIX

Excellent dry hay option for the equine industry or for those seeking a high-tonnage grass mix including orchardgrass, timothy, and smooth brome grass.



RGA GRASS ALFALFA MIX

Perfect combination of RGA Choice Alfalfa Blend, tall fescue, and orchardgrass.



RGA FROST SEEDING PASTURE MIX

Mixture of berseem clover, red clover, and white clover for both yield tonnage and quality.

Spring Cereal Grain



ARMOR SPRING OATS

Great grain oat with very good straw.



RGA HAYMAKER OATS

Tremendous forage oat variety and excellent nurse crop with adjusted seeding rate.



SPRING OATS

Economical dual-purpose option ideally used as a nurse crop or emergency forage.



PRONGHORN SPRING TRITICALE

Selected for yield and high quality forage, excellent disease resistance



ROBUST SPRING BARLEY

Six-row malted barley that is medium tall and a proven performer.



COSAQUE BLACK OATS

Great option when planted in Spring. Works great in annual grazing mixtures.



GUNNER TRITICALE

Selected for yield and high quality forage, excellent disease resistance, and a great option for spring and summer seeding.

Winter Cereal Grain



RGA 07ML21 WHEAT

NEW! Later maturing wheat variety that moves south to north exceptionally well. Works great for high management producers.



RGA 03M19 WHEAT

Medium maturity wheat variety that packs an impressive yield and excellent test weight. Works in all yield environments.



RGA 08MS21 WHEAT

NEW! Medium maturing awnless variety with excellent disease resistance and great standability for high yield environments.



GUNNER TRITICALE

Selected for yield and high quality forage, excellent disease resistance, and a great option for spring and summer seeding.



COSAQUE BLACK OATS

Proven winter oat that tillers like no other. Great option south of I-70. Tremendous quality!



KWS FARO WINTER BARLEY

NEW! European variety with tremendous yields and good straw strength. Works in all yield conditions.



RGA CEREAL RYE

Northern genetics proven to excel within our climate. Very high seed quality!

Summer Annual Forage



RSS SORGHUM X SUDANGRASS

RSS Sorghum x Sudangrass. Offered as Conventional, BMR, BMR BD, and PPS.



RSS DEFIANCE SORGHUM X SUDANGRASS

Increased quality, yields, and plant health and has SCA tolerance.



RSS ENDURANCE SORGHUM X SUDANGRASS

BMR6 Brachytic Dwarf Sorghum x Sudangrass with high SCA tolerance and great plant health.



RPM BD EXCEED PEARL MILLET

BMR6 Brachytic Dwarf Pearl Millet with tremendous yields and quality.



RPM BD HYBRID PEARL MILLET

Leafy 22 or TR 7 / Brachytic Dwarf Conventional Pearl Millet. Great for well drained or sandy soils.



RTG TEFF GRASS

Small-seeded, high quality, and requires firm seed bed.

FORAGE MANAGEMENT TIPS

Seeding rates and depths vary by product. Rates shown with each product.

Sorghum x Sudangrass and Hybrid Sudangrass Planting Depth: 1/2 to 1 inches

Hybrid Pearl Millet Planting Depth: 1/4 to 1/2 inches

Forage Sorghum Planting Depth: 1 to 2 inches

Life Cycle: Annual

Harvest for Sorghum x Sudangrass, Hybrid Sudangrass, and Pearl Millet: First harvest at 40 days or 40 inches. Then cut on 21 to 30 day intervals.

Harvest for Forage Sorghum: Harvest at soft dough stage.

Fertility: 1 to 1 1/4 LBS N per growing day.

Example: For Sorghum x Sudangrass, the first 40 days need 40 to 50 LBS, and each additional cutting needs approximately 30 LBS.

Forage Sorghum/Grain Sorghum



RFS90 BMR BD FORAGE SORGHUM WITH SAFENER

Brachytic Dwarf, super early, with only 90 days to soft dough. Great disease resistance.



RGS8521R WITH SAFENER

85 RM, high yielding, Red Grain. Well suited for a wide range of locations.



RGS9222W

92 RM, White Grain, food grade, and excellent yields for maturity. Offered raw or with Safener.



RGS9921W WITH SAFENER

99 RM, white food grade grain, and is a top performer with exceptional yields.



RGS1221R WITH SAFENER

112 RM, Red Grain, high yielding, and SCA tolerant. Excellent disease resistance.

GRAIN SORGHUM MANAGEMENT TIPS

Seeding Rate: 50,000–100,000 seeds per acre

Seeding Depth: 3/4 to 1 1/2 inches

Recommended Soil Temperature: 60°F and higher

Life Cycle: Annual

Harvest: Grain production

Brassicas



RGA CC RADISH

Aggressive and developed for a single, deep taproot. Great for breaking up compaction.



RGA FORAGE TURNIPS

Improved forage turnip that will impress with increased leaf size and vigor.



PURPLE TOP TURNIPS

Very popular option for both forage and cover crop. Rapid growing fodder and great for grazing applications.



TROPHY RAPE

Improved rape variety with good winter hardiness. Heat, cold, and drought tolerant.



DWARF ESSEX RAPE

Great for both forage and cover crop use.



RGA HYBRID BRASSICA

Tremendous brassica option for forage for livestock and wildlife.



BAYOU KALE

Tremendous brassica option for livestock and wildlife



RGA FORAGE CHICORY

Very late maturing with less bolting than common types.

Orchardgrass/Fescue/Timothy Options



OG L SHAWNEE ORCHARDGRASS

Late variety and a great companion with alfalfa.



RGA TALL FESCUE

Soft-leafed, high quality, high yielding, and endophyte-free. Can be used for both pasture and hay.



ERECTA TIMOTHY

Very late, high quality, and high performing timothy. Great for straight grass stands as well.



OG ML ORCHARDGRASS

Medium to late variety, excellent persistence and vigor, and a great companion with alfalfa.



KY 31 TALL FESCUE

Oregon grown.



CLIMAX TIMOTHY

A common type with medium maturity.



OG ME ORCHARDGRASS

Early to medium variety with great persistence that handles heat well and is great for grass hay crops.

ORCHARDGRASS MANAGEMENT TIPS

Seeding Rate: 15–25 LBS per acre alone; 4–10 LBS per acre in mixtures

Seeding Depth: Shallow, most are 1/4 to 1/2 inches deep

Life Cycle: Perennial

Harvest: Hay production (cutting height of 6 inches) or grazing

FESCUE & TIMOTHY MANAGEMENT TIPS

Seeding Rate (Timothy): 12–15 LBS per acre alone; 2–6 LBS per acre in mixtures

Seeding Rate (Fescue): 25–30 LBS per acre alone; 6–12 LBS per acre in mixtures

Seeding Depth: Shallow, most are 1/4 to 1/2 inches deep

Life Cycle: Perennial

Harvest: Hay production or grazing

Cover Crop Mixes

RGA BROADCAST MIX

Crimson Clover + RGA CC Radish, easy to broadcast, and has good seed to soil contact.

RGA STOCKPILE PLUS CC MIX

Stockpile Mix that includes nitrogen-producing Crimson Clover.

RGA SUMMER MIX

RSS Sorghum x Sudangrass + Sunn Hemp + RGA CC Radish. Great following a cereal crop in the summer.

RGA WINTERKILL MIX

Spring Oats + RGA CC Radish. A good mix for the first-timer.

RGA ROOTED CC MIX

ARG 2N Annual Ryegrass + RGA CC Radish for rapid establishment and deep roots.

RGA SANDY SUMMER MIX

RPM BD Pearl Millet + Sunn Hemp + RGA CC Radish. Great following a cereal crop in sandier soils.

RGA STOCKPILE CC MIX

A great starter mix! Cereal Rye + RGA CC Radish.

RGA ROOTED PLUS CC MIX

RGA Rooted Mix along with deep-rooted, high nitrogen-producing Balansa Clover.

Custom Mixing

One thing that sets Pine Creek Seed Farm apart from the competition is our ability to design and prepare mixtures that are specific to the customer's needs. We have modified the former seed corn processing plant of Doebler's Hybrids and converted this plant into a very efficient small seed mixing/blending facility. This plant has 20 different bins that total 22,000 bushels of storage capacity. Many of these bins feed directly into a large ribbon mixer that unloads into four bins directly above our bagging lines. We are able to package into various bag sizes, including tote bags. We will tag and stencil the bags to the customer's liking for that added personal touch. We are able to mix and package seed for most any need, including turf, forage, cover crops, native grasses, and wildlife.



Cover Crop Benefits

- Reducing Soil Erosion
- Sequestering Nutrients
- Break Up Soil Compaction
- Provide Weed Control
- Creating a Nitrogen Source
- Additional Habitat for Wildlife
- Increase Soil Structure
- Increase Soil Moisture Capacity



Carbon to Nitrogen Ratio:

Managing maturity of your cover crops is important to achieving your desired goals. The ratio of carbon to nitrogen (C:N) in the cover crop is a good indicator of maturity and can be an indicator of how fast the plant material will decompose. As noted in the following chart, a high C:N ratio correlates with a higher maturity and increased amounts of lignin (cell structure) of the plant. Imagine lignin as the rebar in concrete, the higher the levels the more non-digestible material is included.

Material	C:N Ratio		
Rye Straw	82:1	S L O W E R	
Wheat Straw	80:1		
Oat Straw	70:1		
Corn Stover	57:1		
Rye Cover Crop (Anthesis)	37:1		
Pea Straw	29:1		Relative
Rye Cover Crop (Vegetative)	26:1		
Mature Alfalfa Hay	25:1		
IDEAL Microbial Diet	24:1		
Rotted Barnyard Manure	20:1		
Legume Hay	17:1	F A S T E R	
Beef Manure	17:1		
Young Alfalfa Hay	13:1		
Hairy Vetch Cover Crop	11:1		
Soil Microbes (Average)	8:1		

USDA NRCS Publication: Carbon to nitrogen ratios in cropping systems

As with most things in agriculture, there is not one universal best cover crop species, mixture, or management plan for every scenario that we face. Pine Creek Seed Farm will strive to provide you with the most up-to-date information possible through our own research and other shared research projects throughout the US. Understanding that flexibility and timeliness are very important to our customer, we have built a high-capacity blending facility at the former Doebler's facility in Jersey Shore, PA. We are committed to providing you with the best quality seed in the industry while offering you a product or a mixture of products that assist you in reaching your goals.

SMALL SEED PLANTING CHART

	SEEDING RATE / LB ALONE	SEEDING RATE / LB IN MIXTURES	ESTIMATED SEEDS / LB	LBS / BUSHEL	SUGGESTED PLANTING DATES	SEEDING DEPTH (INCHES)	EMERGENCE TIME (DAYS)	PRIMARY USE	LIFE
ALFALFA CTD	15 – 20	8 – 12	151,800	60	MARCH – MAY / AUG – SEPT	1/4"	3 – 7	HAY, PASTURE	PERENNIAL
ALFALFA RAW SEED	15 – 20	8 – 12	230,000	60	MARCH – MAY / AUG – SEPT	1/4"	3 – 7	HAY, PASTURE	PERENNIAL
BARLEY	90 – 120	50 – 90	14,000	48	MARCH – APRIL / AUG – OCT	1" – 2"	7 – 10	HAY, PASTURE, GRAIN	ANNUAL
BIRDSFOOT TREFOIL	8 – 10	2 – 6	370,000	60	FEB – MAY / AUG – SEPT	1/4" – 1/2"	7 – 10	PASTURE	PERENNIAL
BLUEGRASS, KENTUCKY (FORAGE)	10 – 15	4 – 10	2,200,000	14	FEB – MAY / AUG – SEPT	UP TO 1/4"	14 – 28	PASTURE	PERENNIAL
BROMEGRASS, SMOOTH	15 – 20	5 – 10	135,000	14	MARCH – MAY / AUG – SEPT	1/2"	14 – 21	HAY, PASTURE	PERENNIAL
BUCKWHEAT	40 – 55	N/A	15,000	52	JUNE – AUG	1/2" – 1"	7 – 10	HAY, WILDLIFE	ANNUAL
CHICORY, FORAGE	3 – 5	2 – 3	425,000	N/A	APRIL – MAY / AUG – SEPT	1/8" – 1/4"	7 – 21	PASTURE, WILDLIFE	PERENNIAL
CLOVER, ARROWLEAF	5 – 10	3 – 5	400,000	60	AUG – OCT	1/4" – 1/2"	7	PASTURE, WILDLIFE	ANNUAL
CLOVER, CRIMSON RAW SEED	10 – 15	4 – 8	150,000	60	AUG – OCT	1/4" – 1/2"	7	HAY, PASTURE	ANNUAL
CLOVER, BALANSA CTD	6 – 10	2 – 4	500,000	N/A	MARCH – JUNE / AUG – OCT	UP TO 1/4"	7	HAY, PASTURE	ANNUAL
CLOVER, BERSEEM CTD	15 – 25	5 – 7	205,000	60	MARCH – JUNE / AUG – OCT	1/8" – 1/4"	7	HAY, PASTURE	ANNUAL
CLOVER, RED CLOVER CTD	10 – 12	4 – 8	181,500	60	FEB – MAY / AUG – OCT	1/4" – 1/2"	7	HAY, PASTURE	PERENNIAL
CLOVER, RED CLOVER RAW SEED	10 – 12	4 – 8	275,000	60	FEB – MAY / AUG – OCT	1/4" – 1/2"	7	HAY, PASTURE	PERENNIAL
CLOVER, WHITE CTD	5 – 8	2	495,000	60	FEB – MAY / AUG – OCT	1/4"	7 – 10	PASTURE, WILDLIFE	PERENNIAL
CLOVER, WHITE RAW SEED	5 – 8	2	750,000	60	FEB – MAY / AUG – OCT	1/4"	7 – 10	PASTURE, WILDLIFE	PERENNIAL
FESCUE, TALL	25 – 30	6 – 12	225,000	25	MARCH – MAY / AUG – SEPT	1/4" – 1/2"	10 – 14	HAY, PASTURE	PERENNIAL
FESTULOLIUM	30 – 40	12 – 20	225,000	25	MARCH – MAY / AUG – SEPT	1/4" – 1/2"	7 – 10	HAY, PASTURE	PERENNIAL
HAIRY VETCH	20 – 25	N/A	16,000	60	AUG – OCT	3/4" – 1"	10 – 14	HAY, PASTURE	ANNUAL
MILLET, FOXTAIL (GERMAN STRAIN R)	12 – 30	N/A	180,000	50	MAY – AUG	1/2" – 1"	7 – 10	HAY, PASTURE	ANNUAL
MILLET, JAPANESE	15 – 30	6 – 12	140,000	35	APRIL – AUG	1/2" – 1"	7 – 10	HAY, WILDLIFE	ANNUAL
MILLET, PEARL (HYBRID)	12 – 20	N/A	55,000	52	MAY – JULY	1/4" – 1/2"	5 – 7	HAY, PASTURE, SILAGE	ANNUAL
OATS	90 – 120	50 – 80	16,000	32	MARCH – MAY / AUG – SEPT	1" – 2"	7 – 10	HAY, PASTURE, GRAIN	ANNUAL
OATS, BLACK HULLED	80 – 100	40 – 60	16,000	32	AUG – OCT	1" – 2"	7 – 10	HAY, PASTURE	ANNUAL
ORCHARDGRASS	15 – 25	3 – 10	425,000	14	MARCH – MAY / AUG – SEPT	1/4" – 1/2"	10 – 14	HAY, PASTURE	ANNUAL
PEAS, AUSTRIAN WINTER	30 – 40	20 – 30	2,000	60	MARCH – APRIL / SEPT – OCT	1/4" – 1/2"	7	HAY, PASTURE, SILAGE	ANNUAL
PEAS, COW	80 – 120	N/A	3,000	60	MAY – AUG	1/4" – 1/2"	7 – 10	HAY, PASTURE, SILAGE	ANNUAL
PEAS, SPRING	90 – 120	50 – 60	3,500	60	MARCH – MAY / AUG – SEPT	1/2"	7 – 10	HAY, PASTURE, SILAGE	ANNUAL
RADISH, DAIKON	6 – 8	1.5 – 3	25,000	50	AUG – OCT	1/4"	7	PASTURE, WILDLIFE	ANNUAL
RAPE, FORAGE	4 – 8	2 – 3	145,000	50	APRIL – SEPT	1/2"	7	PASTURE	ANNUAL
REED CANARYGRASS	12 – 15	2 – 10	560,000	47	MARCH – MAY / AUG – SEPT	1/4" – 1/2"	14 – 21	HAY, PASTURE	PERENNIAL
RYE, CEREAL	80 – 120	35 – 75	18,000	56	MARCH – APRIL / AUG – NOV	1" – 2"	5 – 10	HAY, PASTURE	ANNUAL
RYEGRASS, ANNUAL	20 – 40	5 – 10	225,000	24	FEB – MAY / AUG – SEPT	1/4" – 1/2"	7 – 10	HAY, PASTURE	ANNUAL
RYEGRASS, PERENNIAL	25 – 35	5 – 10	225,000	24	FEB – MAY / AUG – SEPT	1/4" – 1/2"	7 – 10	HAY, PASTURE	PERENNIAL
SORGHUM, GRAIN (MILO)	3 – 8	N/A	15,000	56	MAY – JULY	1" – 1 1/2"	5 – 7	GRAIN	ANNUAL
SORGHUM, FORAGE	10 – 20	N/A	15,000	56	MAY – JULY	1" – 1 1/2"	5 – 7	SILAGE, HAY	ANNUAL
SORGHUM, FORAGE BMR	4 – 8	N/A	15,000	56	MAY – JULY	1" – 1 1/2"	5 – 7	SILAGE, HAY	ANNUAL
SORGHUM X SUDANGRASS HYBRID	35 – 60	N/A	22,000	56	MAY – JULY	1/2" – 1"	5 – 7	HAY, PASTURE, SILAGE	ANNUAL
SORGHUM X SUDANGRASS BMR	30 – 40	N/A	22,000	56	MAY – JULY	1/2" – 1"	5 – 7	HAY, PASTURE, SILAGE	ANNUAL
SUDANGRASS	20 – 45	N/A	43,000	40	MAY – JULY	1/2" – 1"	5 – 7	HAY, PASTURE	ANNUAL
SUNFLOWERS, PEREDOVIK	8 – 40	N/A	7,000	32	MAY – JULY	1" – 1 1/2"	7 – 10	WILDLIFE	ANNUAL
SUNN HEMP	25 – 30	N/A	15,000	N/A	MAY – JULY	1" – 1 1/2"	7 – 10	PASTURE, WILDLIFE	ANNUAL
SWEETCLOVER, YELLOW BLOSSOM	12 – 15	6 – 8	370,000	60	FEB – MAY / AUG – OCT	1/4" – 1/2"	7	PASTURE, WILDLIFE	BIENNIAL
SWITCHGRASS	5 – 8 PLS	N/A	340,000	55	APRIL – JUNE	1/2"	14 – 21	HAY, PASTURE	PERENNIAL
TIMOTHY	12 – 15	2 – 6	1,152,000	45	MARCH – MAY / AUG – SEPT	1/4" – 1/2"	7 – 10	HAY, PASTURE	PERENNIAL
TEFFGRASS	6 – 12	N/A	1,300,000	N/A	MAY – JUNE	1/8" – 1/4"	5 – 10	HAY	ANNUAL
TRITICALE	80 – 120	50 – 80	15,000	48	MARCH – MAY / AUG – OCT	1" – 1 1/2"	5 – 10	HAY, PASTURE	ANNUAL
TURNIPS	2 – 8	1 – 2	220,000	55	APRIL – SEPT	1/2"	5 – 10	PASTURE	ANNUAL
WHEAT	80 – 120	50 – 80	12,000	60	MARCH – APRIL / AUG – OCT	1" – 2"	5 – 10	PASTURE	ANNUAL

COVER CROP BENEFITS (5 = EXCELLENT; 1 = POOR)

COVER CROP BENEFITS & PLANTING CHART		COMPACTION ALLEVIATION	EROSION CONTROL	WEED SUPPRESSION	EASE OF ESTABLISHMENT	BIOMASS PRODUCTION	DISEASE / PEST CONTROL	P & K CYCLING	POLLINATOR / BENEFICIALS	CARBON / NITROGEN RATIO (C:N)	SEEDING RATE (LBS) / ACRES ALONE	SEEDING RATE (LBS) / ACRES IN MIXTURES	SEEDING RATE (LBS) / ACRES FOR FORAGE	SEEDS / LB	SEEDING DEPTH (DRILL)	BULK DENSITY LBS / FT ³
LEGUMES	AUSTRIAN WINTER PEAS	2	3	4	4	3	3	2	4	15:1 – 20:1	30 – 80	10 – 30	40 – 60	2,000	1"	52
	BALANSA CLOVER	3	4	4	4	4	3	3	5	15:1 – 20:1	3 – 6	1 – 4	3 – 6	500,000	1/4"	56
	BERSEEM CLOVER	2	4	4	4	3	1	4	3	15:1 – 20:1	8 – 20	5 – 10	15 – 20	150,000	1/4"	52
	CRIMSON CLOVER	2	3	4	4	3	3	3	3	15:1 – 20:1	10 – 15	4 – 8	6 – 15	150,000	1/4"	52
	RGA RED CLOVER	4	3	4	3	4	2	4	4	12:1 – 16:1	8 – 12	6 – 8	8 – 12	270,000	1/4"	48
	SPRING PEAS	2	3	4	4	3	3	2	4	20:1 – 25:1	75 – 120	10 – 50	75 – 120	3,000	1"	50
	SUNN HEMP	3	3	4	3	5	3	3	4	18:1 – 29:1	15	5 – 8	5 – 15	15,000	1/2" – 1"	
BRASSICAS	RGA CC RADISH	5	4	5	5	4	3	4	2	10:1 – 22:1	3 – 8	1 – 3	5 – 8	25,000	1/4"	44
	OILSEED RADISH	4	4	5	5	4	4	4	3	10:1 – 22:1	8 – 12	3 – 8	8 – 12	30,000	1/4"	44
	PURPLE TOP TURNIPS	3	3	5	5	4	3	3	3	10:1 – 22:1	2 – 6	2 – 4	3 – 8	220,000	1/4"	45
	RAPESEED	5	4	3	5	4	4	4	4	15:1 – 22:1	4 – 6	2 – 4	6 – 8	145,000	1/4" – 1/2"	45
	YELLOW/WHITE MUSTARD	4	3	3	5	4	4	4	5	20:1 – 30:1	6 – 15	2 – 5	NR	100,000	1/4" – 3/4"	46
GRASSES	ARG 2N ANNUAL RYEGRASS	5	5	5	5	3	3	3	2	20:1	15 – 30	10 – 15	25 – 35	215,000	1/4"	32
	ARG 4N ANNUAL RYEGRASS	5	5	5	5	4	3	3	2	20:1	16 – 30	11 – 15	26 – 35	215,000	1/4"	33
	SPRING OATS	2	4	4	4	5	3	3	1	20:1	30 – 50	20 – 40	80 – 120	16,000	3/4" – 1"	38
	RGA CEREAL RYE	4	5	5	4	4	3	4	1	26:1 – 82:1	30 – 50	20 – 40	80 – 120	16,000	3/4" – 1"	50
	RGA WINTER TRITICALE	2	4	4	4	5	3	4	1	20:1 – 58:1	30 – 50	20 – 40	80 – 120	15,000	3/4" – 1"	48
	RSS SORGHUM X SUDANGRASS	4	4	5	4	5	4	3	3	20:1 – 80:1	25 – 60	5 – 20	25 – 60	20,000	3/4" – 1 1/2"	45
	RPM BD PEARL MILLET	4	4	5	5	5	4	3	3	12:1 – 20:1	15 – 30	5 – 20	20 – 30	55,000	1/2" – 1"	42
	GERMAN FOXTAIL MILLET	3	5	3	4	4	3	3	2	12:1 – 20:1	20 – 25	5 – 15	20 – 25	220,000	1"	
OTHER	BUCKWHEAT	3	2	5	5	4	1	5	5	10:1 – 18:1	40 – 55	5 – 20	40 – 55	15,000	1/2" – 1"	40
	SUNFLOWER	4	4	3	3	3	3	4	5	20:1 – 40:1	3 – 5	1 – 2	3 – 5	8,000	3/4" – 1"	28
RGA COVER CROP MIXTURES	RGA STOCKPILE CC MIX	5	4	5	4	5	3	4	2		30 – 35		40 – 50		1/4" – 1"	48
	RGA STOCKPILE PLUS CC MIX	5	5	5	4	4	3	4	2		30 – 35		40 – 50		1/4" – 1"	54
	RGA BROADCAST CC MIX	4	3	3	4	3	3	4	3		12 – 15		15 – 20		1/4" – 1/2"	52
	RGA WINTERKILL CC MIX	5	3	5	5	4	3	3	2		30 – 35		40 – 50		1/4" – 1"	36
	RGA ROOTED CC MIX	5	4	4	4	4	4	4	3		15 – 20		20 – 25		1/4" – 1/2"	50
	RGA ROOTED PLUS CC MIX	5	4	4	4	4	4	4	3		20 – 25		25 – 30		1/4" – 1/2"	35
	RGA SANDY SUMMER CC MIX	4	4	3	3	5	3	3	4		20 – 25		25 – 30		1/4" – 1"	52
	RGA SUMMER CC MIX	4	4	3	3	5	4	3	4		25 – 30		30 – 30		1/4" – 1"	50

Pro-Serve[®] Forage Treatment



Benefits of Pro-Serve Forage Treatments:

- Results in greener, leafier bales with improved palatability
- Allows for baling at higher moisture levels
- Works to preserve nutritional value and dry matter
- Reduces storage losses – mold, spoilage, and heat damage
- Retains more nutrients
- Non-corrosive to equipment
- Compatible with most pesticides
- Enhances yield and quality
- Low volatility

Bale Up to 23% Moisture While Maintaining Quality and Yield

Pro-Serve naturally preserves hay to retain more nutrients. This liquid forage treatment can be applied to baled hay or ensiled crops. It is the product of choice for application at the time of cutting or conditioning. Hay can be baled at a higher moisture level to retain a greener color and higher nutritional value, which leads to a higher premium price if sold. Feeding higher-quality hay to animals provides for improved feed intake and higher rate of gain.

Bail all Types of Hay at Higher Moisture Levels

Pro-Serve will allow you to bale at higher moisture levels to retain Relative Feed Value (RFV) with all types of hay, from grass hay to dairy-quality alfalfa. Small square bales can be baled at up to 23% moisture and large round bales at up to 20% moisture.

Increase Nutritional Value

Applying Pro-Serve to hay assists in leaf and protein retention, preserving nutritional value. Increased dry matter yield and RFV will add significant value to your hay crop.

Application Method

For dry baled hay, Pro-Serve is ideal for application at the haybine, crimper, swather, or baler. For ensiled crops, Pro-Serve can be applied at the chopper or blower.

Application Rate

Mix 1 gallon Pro-Serve with 24 gallons water and apply 1 quart of this solution per ton. Spray Pro-Serve evenly, diluted as needed to deliver the proper rate of 1.3 ounces per ton. One gallon of Pro-Serve treats approximately 100 tons of forage.

Pro-Serve Forage Treatment for Commercial Hay Production

#41497 Gallon



AgroVantage is part of the family of Conklin products designed to save fuel, energy, time, and money so you can work smarter, live better. Opportunities are available to start your own Conklin business.



AG0120_007_0719_SellSheetProServe ©2019 Conklin Company Inc. 0719

Smartfoil®



YEAST BASED FERMENTATION METABOLITES

- Reduce flower abortion and secure the yield
- Mitigate the impact of abiotic stress
- Stimulate plant metabolism

ECONOMICAL

- + 5%⁽⁴⁾ average yield increase on corn
- + 7%⁽⁴⁾ average yield increase on soybean

UNIVERSAL

- Usable in organic and conventional farming
- Commercialized in **20 countries** with more than **1,000 trials** performed on **20 different crops**


⁽³⁾ Contact technical advisor for more information.
⁽⁴⁾ Average of trials done by Agrauxine.

SMARTFOIL, SECURE YOUR YIELD

SIMPLE AND RELIABLE

- Can be easily **tank-mixed**⁽³⁾ with other products
- **Fits perfectly** into product application programs
- Stable and without constraints of storage
- 2.5 jugs gallons, liquid solution, **easy to handle and to prepare**





Graph-Ex[®]

Inoculant Seed Lubricant
for Soybeans

A UNIQUE SOYBEAN INOCULANT WITH A PROPRIETARY BLEND OF THREE STRAINS OF YIELD ENHANCING RHIZOBIA BACTERIA WITH AN INNOVATIVE TALC-GRAPHITE CARRIER FOR INCREASED SEED FLOWABILITY WITH HIGH ADHESION AND LOW USE RATES.



RHIZOLOCK:

- Better seed flowability
- Maximum yield advantage
- Increase plant stand
- Patented Talc/Graphite Carrier
- Fast and Convenient Application



SabrEx[®]

ROOT INOCULANT
for CORN

CONTAINS A BLEND OF BENEFICIAL AND PATENTED FUNGI FORMULATED IN A TALC/GRAPHITE LUBRICANT.

SabrEx for CORN has been shown to:

- Create more robust root systems.
- Increase water and nutrient efficiency.
- Increase yields on field corn, popcorn, sweet corn and sunflowers.
- Induce resistance to plant stresses like dry weather.
- Provide lubrication for the planter



P.O. Box 222 | Van Wert, OH 45891
North America | 877.617.2461 | Agrauxine.us



Notes

Trait Legal Information



Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, post-emergent weed control of Liberty® herbicide for optimum yield and excellent weed control. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF.

Agrisure® Above, Agrisure® Agrisure Viptera®, Duracade®, DuracadeViptera™, Viptera®, E-Z Refuge® and Refuge Renew™ are trademarks of a Syngenta Group Company.



Corn trait technology incorporated into these seeds is commercialized under license from Syngenta Seeds, LLC. Herculex® Technology incorporated into these seeds is commercialized under license from Corteva Agriscience LLC. HERCULEX® and the HERCULEX Shield are trademarks of Corteva Agriscience LLC.

Important: Always read and follow label and bag tag instructions; only those labeled as tolerant to glufosinate may be sprayed with glufosinate ammonium-based herbicides.



Before opening a bag of seed, be sure to read and understand the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed set forth in the technology agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.



YieldGard VT Pro® is a registered trademark used under license from the Bayer Group.

More information about Duracade® is available at <http://www.biotradestatus.com/>.

Trait Stewardship Policy

Seeds containing the Enlist, Herculex and PowerCore traits are protected under one or more U.S. patents which can be found at: www.traitstewardship.com. The purchase of these seed traits include a limited license to produce a single crop in the United States. The use of seed from such a crop or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. You acknowledge and agree to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed: (i) the Corteva Agriscience *Technology Use Agreement* and (ii) the *Product Use Guides for all technologies in this seed*, including the Herbicide Resistance Management (HRM), and Use requirements.

To plant Enlist, Herculex and PowerCore seed, you must have a limited license from Corteva Agriscience (or other appropriate affiliates). In consideration of the foregoing, Corteva Agriscience grants to the Grower the limited license to use its technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the *Technology Use Agreement* in effect at the time of planting of this seed.

Always read and follow herbicide label directions prior to use:

Enlist® products contain the Enlist trait that provides crop safety for use of labeled over-the-top applications of glyphosate, glufosinate and 2,4-D herbicides featuring Colex-D® technology when applied according to label directions. Following burndown, the only 2,4-D containing herbicide products that may be used with Enlist® crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2,4-D products that do not contain Colex-D technology are not authorized for use in conjunction with Enlist products. Enlist corn contains genes that confer tolerance to 2,4-D and -fop herbicides. 2,4-D and -fop herbicides will damage or kill crops that are not tolerant to 2,4-D or -fops.

ETS Statement—Corn and Soybean

Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these guidelines, our product launch process for responsible launches of new products includes a longstanding process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and endusers must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer's acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit www.biotradestatus.com.

IRM Grower guide—Corn

IRM – Properly managing trait technology is key to preserving it as a long term crop protection tool. **Growers who fail to comply with IRM requirements risk losing access to this product.** To help preserve the effectiveness of B.t. corn technologies, growers planting B.t. corn technologies are required to follow an IRM Plan. Consult the Corn Product Use Guide for appropriate refuge configuration options.

Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the *Technology Use Agreement* and *Product Use Guide*. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

For complete details on IRM requirements for hybrids with Bt technology, including refuge examples and important information on the use of insecticides on refuge and Bt corn acres, please consult appropriate *Product Use Guide*. Go to www.corteva.us/Resources/trait-stewardship.html to download the latest Corteva Agriscience Corn *Product Use Guide*.



Trademark Language— Enlist E3® Soybeans

The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C.™ ® Enlist, Enlist E3, the Enlist E3 logo, and Colex-D are trademarks of Corteva Agriscience and its affiliated companies. © 2022 Corteva.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

Trademark Language— PowerCore® Enlist® corn

™ ® Trademarks of Corteva Agriscience and its affiliated companies. Enlist Duo® and Enlist One® herbicides are not registered for sale or use in all states or counties. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your area. Enlist Duo and Enlist One are the only 2,4-D products authorized for use with Enlist crops. Consult Enlist herbicide labels for weed species controlled. Always read and follow label directions. PowerCore® multi-event technology developed by Corteva Agriscience and Monsanto. PowerCore®, Roundup®, Roundup Ready®, Roundup Ready 2 Technology and Design are registered trademarks of Bayer Group. Liberty Link® and the Water Droplet Design® are registered trademarks of BASF.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

PCE – PowerCore® Enlist® Refuge Advanced® corn products with HX1, VTP, ENL, LL, RR2. Contains a single-bag integrated refuge solution for above-ground insects. In EPA-designated cotton-growing counties, a 20% separate corn borer refuge must be planted with PowerCore Enlist Refuge Advanced products.

Trademark Language— Enlist® Roundup Ready® Corn 2

®™ Enlist, Colex-D, and Assure are trademarks of Corteva Agriscience and its affiliated companies.

Roundup®, Roundup Ready®, Roundup Ready 2 Technology and Design are registered trademarks of Bayer Group.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

Trademark Language— Herculex Insect Protection

®Herculex and the Herculex logo are trademarks of Corteva Agriscience and its affiliated companies.

Liberty Link® and the Water Droplet Design® are registered trademarks of BASF.

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

PowerCore® multi-event technology developed by Corteva Agriscience and Monsanto. PowerCore® is a registered trademark of Monsanto Technology LLC. Always follow IRM, grain marketing and all other stewardship practices and pesticide label directions. B.t. products may not yet be registered in all states. Check with your seed representative for the registration status in your state.



Liberty®, LibertyLink® and the Water Droplet Design are trademarks of BASF.





570-599-6949

INFO@PINECREEKSEED.COM

204 TIADAGHTON AVE

JERSEY SHORE, PA 17740