

WHO INVESTS IN GENETICS AND TECHNOLOGY REAPS PRODUCTIVITY.





IF IT'S SAINT HELENA, YOU CAN TRUST.

Santa Helena Seeds knows the day to day in the field. Therefore, it invests in technology and innovation of corn and sorghum seeds, providing the best results to the producer, generating more productivity for its cultivation.

With a complete line of grains and silage, that only a company of the Agroceres group can offer, we present our products for the 20/21 Harvest and we invite you to be part of this select group of producers who are proud to plant Santa Helena Seeds because as to you, we are passionate about the field.

INVESTIGATION AND DEVELOPMENT

Wide network of research and evaluation of hybrids distributed in the main producing regions of the country, Certified with experience and knowledge the selection of materials for grains and silage.

MODERN SEED BENEFITING UNIT

Modern seed classification and cold storage system, ensuring product quality until delivery.

SOWING

Specific tests of Sowing per lot. Suggestion of the best disc and ring options available on the market.

QUALIFIED SERVICE

Trained and highly qualified team with present and agile Service. Always next to the producer, we are passionate about the field and we are willing to attend you.

HARVESTING AND DRYING ON THE COB

It preserves the physiological quality of the seeds at its peak, providing higher levels of vigor and germination.

QUALITY ASSURED

Strict germination and vigor tests carried out in our own laboratory, with ISO 17025 certification.

WIDE CHOICE

Complete line of hybrids for all segments and purposes of use, always respecting regional diversities and planting conditions.

ADVANCED TECHNOLOGY

Maximum quality in the production of seeds, with the main technologies available in the market. Review some of the available technologies and following all the precautions you should take when choosing to use it:

CONVENCIONAL

Conventional products (non-GMO) with superior genetics. It is necessary to carry out adequate cultural treatments.



Tolerance to the glyphosate herbicide, providing more efficiency in weed control.



Tolerance to insects of the order of the Lepidoptera and the glyphosate herbicide.



Protection of the corn root against the attack of Diabrotica speciosa, as well as tolerance to insects of the order Lepidoptera and to the herbicide glyphosate.



It offers tolerance to the main species of caterpillars that attack the culture of corn, in bud, cob, stem and suppression on cutters (Agrotis ipsilon). In addition, tolerance to glyphosate herbicides.

TECHNICAL RECOMMENDATION FOR GMO PRODUCTS

To complement the efficiency of hybrids with Bt technology (*Bacillus thuringiensis*), we recommend some actions that help in the preservation of technology. Learn and practice **IPM** (Integrated Pest Management). Discover the importance and its benefits in the medium and long term for success in crops.

IPM is a set of measures that aims to keep pests below the **economic damage level (EDL)**. These measures should be applied when the density of pest population reaches **control level (CL)**. When the population of insects harmful to the crop remains below the LC, it is at the **equilibrium level (EL)**.

SEE THE NEXT PAGE STEP BY STEP.

STEP BY STEP TO ESTABLISH IPM (INTEGRATED PEST MANAGEMENT)

Before starting to sow, it is necessary to validate some decisions to be made in the IPM:

Anticipated drying

Important for a better establishment of the stand, since it eliminates the source of food for the pest population in the initial phase of cultivation, helping to maintain the level of balance.

Monitoring

Monitoring must be constant from the moment the area is prepared until harvest. Being present in the field allows the farmer to make the most efficient decisions for successful management. In pre-planting, check the area for pests to assess the need for insecticide application before planting. The remaining (large) tracks are difficult to control chemically.

✓ Hybrid Selection

It is very important that the producer follow the specific recommendations for each region, planting time, plant population and management.

✓ IST

An important ally of the producer is the IST for the efficient management of pests, bringing greater security in the initial phase of establishment of the Crop. All Biomatrix Seed corn and sorghum hybrids are optionally available with IST, delivering the highest quality and vigor in the early stages of crop development.

We offer growers the two best treatments available on the market, Poncho® and Dermacor®, which, if combined, contribute substantially to the efficient control of pests * such as corn leafhoppers, aphids, thrips, fall armyworm.

Why use industrial seed treatment?

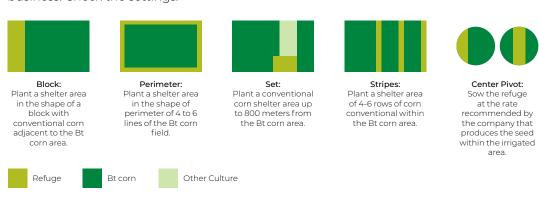
- Stand maintenance and greater uniformity of cultivation.
- Practicality, since it is ready to sow.
- Automated seed dosage control. Doses are applied accurately.
- More safety and optimization of workforce on the property, reducing the risks of poisoning due to less exposure to the product.
- Minimizes environmental impacts.





✓ Refuge

Plant seeds without Bt technology (conventional corn or RR) in at least 10% of the total area of the plot to be planted with Bt technology. The refugee is an essential tool that preserves the benefits of Bt technologies by delaying the selection of resistant insects and protect your investment. The refuge area can be planted in different configurations and must be installed at a maximum distance of 800 meters from the area planted with Bt technology. The purpose of the refuge is to protect the technology without damaging your business. Check the settings:



After sowing, it is time to act, as the crop is developing in the field. Let's protect the productive potential!

Crop monitoring and management

Divide the corn area into plots of 10ha to 50ha, evaluating the population of possible pests.

✓ Application and level of action

Follow the damage indicators for each pest and make the right decision to carry out the chemical application correctly.

✓ Weed management

Reduction of competitive plants population through the application of herbicides at the right time and in the correct dose, respecting the instructions for use of the producer.

Harvesting the results and protecting the future

Harvester cleaning

Eliminate weeds and seeds that are trapped in machines, preventing them from return to the field.

Handling after harvest

Keep the area clean so that weeds don't naturally re-seed.

Sowing cover

Cover crops allow you to manage the area until the beginning of the next crop.

Coverage monitoring

Pests and weeds are controlled even before the start of the harvest.

HAS SHOWN STABLE PERFORMANCE ACROSS A WIDE RANGE OF ENVIRONMENTS AND GOOD YIELD POTENTIAL

HIGHLIGHTS

- High yield productivity Good stability Super early cycle
- Tolerance to Corn Stunt.

RECOMENDACIÓN DE USO

GRAIN	3
WHOLE PLANT SILAGE	3
GRAIN HUMID SILAGE	y
SNAPLAGE	y

MATURITY	
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GRAIN TYPE

Semi Dent | • Yellow

Early



POPULATION (PLANTS/HA)

First Season Second Season

60,000 to 65,000 55,000 to 60,000

DISEASE TOLERANCE | CORN

COMMON RUST	1 2 3 4 5 6 7 8 9 MODERATE
SOUTHERN RUST	123456789 HIGH

LEAF SPOT 1 2 3 4 5 6 7 8 9 MODERATE

123456789 **GRAY LEAF SPOT** HIGH

GRAINS 123456789 HIGH

TECHNOLOGY

NON GMO		\bigcirc
RR-ROUNDUP RE	ADY	0
VT PRO 2		0
VTPR03 LAUNC	HING	\otimes
VIP3		\bigcirc

ARCHITECTURE Semi erect

PLANT HEIGHT 2,30 to 2,70m

EAR HEIGHT 1,35 to 1,75m

HUSK Great

STAYGREEN Good

INVESTMENT RESPONSE High | Medium

SILAGE QUALITY(%)

WHOIFPI ANT

WHOLLI LAN	
Crude protein (CP%)	8,5%
NDT .	70,0%
NDF	72,5%

GRAIN HUMID	
Starch	72,5 %
Crude protein (CP%)	8,6%
FF '	3.8%







PARAGUAY



HYBRID WITH EARLINESS AND WITH WIDE ADAPTATION AT DIFFERENT SOWING TIMES.

HIGHLIGHTS

• High grain yield • Hybrid with excellent stability Excellent Dry Down

RECOMENDACIÓN DE USO

GRAIN	······ <u> </u>
WHOLE PLANT SILAGE	•••••••••••••••••••••••••••••••••••••••
GRAIN HUMID SILAGE	•••••••••••••••••••••••••••••••••••••••
SNAPLAGE	·····

MATURITY

Super early

GRAIN TYPE

Semi flint | • Orange



POPULATION (PLANTS/HA)

60,000 to 70,000 First Season Second Season 50,000 to 60,000

DISEASE TOLERANCE | CORN

1 2 3 4 5 6 7 8 9 MODERATE **COMMON RUST** 123456789 HIGN **SOUTHERN RUST** LEAF SPOT 123456789 HIGH **GRAY LEAF SPOT** 1 2 3 4 5 6 7 8 9 MODERATE

TECHNOLOGY

NON GMO		3
RR-ROUNDUP RE	EADY (\bigcirc
VT PRO 2		3
VTPR03 LAUCH	HING	3
VIP3	(\supset

ARCHITECTURE Semi erect

PLANT HEIGHT 2,10 to 2,50m

EAR HEIGHT 1,00 to 1,50m

HUSK Good

STAYGREEN Goof

INVESTMENT RESPONSE Medium/Hign | Medium

SILAGE QUALITY(%)

WHOLE PLANT Crude protein (CP%) 7,4% 72,5% NDT 73,0% NDF

GRAIN HUMID 70.1% Starch Crude protein (CP%) 8,5% 4,3%

GRAINS

ADAPTABILITY IN THE FOLLOWING COUNTRIES:

123456789



HIGH

BOLIVIA COLOMBIA ECUADOR MÉXICO BELICE PARAGUAY PERÚ **ANGOLA NIGERIA** SUDÁN

EXCELLENT RESPONSE TO THE USE OF TECHNOLOGY.

HIGHLIGHTS

• Optimum grain quality • Wide adaptation



RECOMENDACIÓN DE USO

GRAIN	3
WHOLE PLANT SILAGE	3
GRAIN HUMID SILAGE	3
SNAPLAGE (\mathcal{C}

MATURITY

Early

GRAIN TYPE

Semiflint | • Orange

POPULATION (PLANTS/HA)

First Season Second Season 60,000 to 65,000 50,000 to 55,000

DISEASE TOLERANCE | CORN

COMMON RUST 12345678 9 MODERATE

SOUTHERN RUST 123456789 HIGH

LEAF SPOT 12345678 9 MODERATE

GRAY LEAF SPOT 123456789 HIG

GRAINS 1 2 3 4 5 6 7 8 9 MODERATE

TECHNOLOGY

NON GMO		\bigcirc
RR-ROUNDUP REA	ADY	0
VT PRO 2		\otimes
VT PRO 3		0
VIP3		\bigcirc

ARCHITECTURE Normal

PLANT HEIGHT 2,05 to 2,45m

EAR HEIGHT 1,15 to 1,55m

M HUSK Great

STAYGREEN Good

(§) INVESTMENT RESPONSE High | Medium

SILAGE QUALITY(%)

WHOLE PLANT Crude protein (CP%) NDT NDF

6,6% 70,0%

71,5%

(0)















ECUADOR MÉXICO

BELICE

PARAGUAY

ANGOLA

BOLIVIA

COLOMBIA





HIGH YIELD POTENTIAL AND PROTECTION FOR YOUR INVESTMENT.

DESTAQUES

Normal

High crop protection capacity • High yield potential
 Great grain quality

RECOMENDACIÓN DE USO

GRAIN	_
WHOLE PLANT SILAGE	3
GRAIN HUMID SILAGE	3
SNAPLAGE (C

MATURITY

Early

GRAIN TYPE

Semi Dent | • Yellow

POPULATION (PLANTS/HA)

First Season 60,000 Second Season 50,000 to 55,000

TO DISEASE TOLERANCE | CORN

COMMONRUST	123456789	MÉDIA
SOUTHERN RUST	123456789	ALTA
LEAFSPOT	123456789	ALTA
GRAY LEAF SPOT	123456789	ALTA
GRAINS	123456789	MÉDIA

TECHNOLOGY

NON GMO		\bigcirc
RR-ROUNDUP R	EADY	\bigcirc
VT PRO 2		\bigcirc
VTPR03		\bigcirc
VIP3		\bigcirc

ARCHITECTURE

PLANT HEIGHT 2,25 to 2,65m

EAR HEIGHT 1,35 to 1,75m

M HUSK Great

SG STAYGREEN Good

INVESTMENT RESPONSE Medium/High

SILAGE QUALITY(%)

WHOLE PLANT

 Crude protein (CP%)
 8,6%

 NDT
 71,0%

 NDF
 72,0%

GRAIN HUMID

 Starch
 74,4%

 Crude protein (CP%)
 7,7%

 E.E
 4,6%



ADAPTABILITY IN THE FOLLOWING COUNTRIES:



PARAGUAY

LAUNCHING

SUPER EARLY HYBRID WITH A HIGH PRODUCTIVE CEILING, COMBINED WITH A WIDE ENVIRONMENTAL ADAPTATION.

HIGHLIGHTS

- Excellent foliar health Versatility in use
- Production stability

RECOMENDACIÓN DE USO

GRAIN	······ <u> </u>
WHOLE PLANT SILAGE	······ &
GRAIN HUMID SILAGE	······ &
SNAPLAGE	·····

MATURITY

Super early

⊘ G

GRAIN TYPE

Semiflint | • Orange

POPULATION (PLANTS/HA)

First Season Second Season 60,000 to 70,000 50,000 to 60,000

DISEASE TOLERANCE | CORN

COMMON RUST 12345678 9 MODERATE

SOUTHERN RUST 123456789 HIGH

LEAF SPOT 123456789 HIGH

GRAY LEAF SPOT 1 2 3 4 5 6 7 8 9 MODERATE

GRAINS 123456789 HIGH

TECHNOLOGY

NON GMO		\bigcirc
RR-ROUNDUP RE	ADY	\bigcirc
VT PRO 2		\bigcirc
VT PRO 3		0
VIP3		\bigcirc

ARCHITECTURE Semi erect

PLANT HEIGHT 2,10 to 2,50m

EAR HEIGHT 1,00 to 1,50m

M HUSK Good

STAYGREEN Good

(f) INVESTMENT RESPONSE Medium/High | Medium

SILAGE QUALITY(%)

WHOLE PLANT

 Crude protein(CP%)
 7,4%

 NDT
 72,5%

 NDF
 73,0%

GRAIN HUMID

 Starch
 70,1%

 Crude protein (CP%)
 8,5%

 E.E
 4,3%



SUPER EARLY HYBRID WITH EXCELLENT COST-BENEFIT

HIGHLIGHTS

Wide adaptation
 Great return on investment

RECOMENDACIÓN DE USO

GRAIN	······································
WHOLE PLANT SILAGE	······································
GRAIN HUMID SILAGE	····
SNAPLAGE	

MATURITY

Super early

GRAIN TYPE

Semiflint | • Orange

POPULATION (PLANTS/HA)

First Season 55,000 to 65,000 Second Season 50,000 to 55,000

TO DISEASE TOLERANCE | CORN

COMMON RUST 12345678 9 MODERATE

SOUTHERN RUST 123456789 HIGH

LEAF SPOT 1 2 3 4 5 6 7 8 9 MODERATE

GRAY LEAF SPOT 123456789 HIGH

GRAINS 1 2 3 4 5 6 7 8 9 MODERATE

TECHNOLOGY

NON GMO		···· 🍑
RR-ROUNDUP RI	EADY	
VT PRO 2		
VTPR03		
VIP3		

ARCHITECTURE

PLANT HEIGHT 2,10 to 2,50m

EAR HEIGHT 1,15 to 1,55m

N HUSK Great

STAYGREEN Good

(§) INVESTMENT RESPONSE Medium | Low

SILAGE QUALITY(%)

WHOLE PLANT

Crude protein (CP%) NDT NDF 8,8% 69,7% 70,5%

Normal

GRAIN HUMID

Starch Crude protein(CP%)

□.1



ADAPTABILITY IN THE FOLLOWING COUNTRIES:



BOLIVIA

QUALITY SILAGE, CHAMPION IN PRODUCTIVITY.

HIGHLIGHTS

- Much more milk and meat for your cattle
- High-quality silage production Good cut window

RECOMENDACIÓN DE USO

01171111	····
WHOLE PLANT SILAGE	······ &
GRAIN HUMID SILAGE	·····
SNAPLAGE	O

MATURITY	
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ATURITY Semi early

RAIN TYPE Dent | • Yellow



POPULATION (PLANTS/HA)

First Season Second Season 55,000 to 60,000 45,000 to 55,000

DISEASE TOLERANCE | CORN

COMMON RUST	123456789 LOW
SOUTHERNRUST	123456789 HIGH
LEAF SPOT	123456789 LOW
GRAY LEAF SPOT	123456789 MODERATE
GRAINS	123456789 MODERATE

TECHNOLOGY

NON GMO		\bigcirc
RR-ROUNDUP R	EADY	\bigcirc
VT PRO 2		0
VTPR03 ······		0
VIP3		\bigcirc

PLANT HEIGHT 2,50 to 2,90m

Normal

EAR HEIGHT 1,40 to 1,80m

M HUSK Great

STAYGREEN Good

(S) INVESTMENT RESPONSE Medium | Low

SILAGE QUALITY(%)

 WHOLE PLANT

 Crude protein (CP%)
 6,4%

 NDT
 61,1%

 NDF
 55,1%









SHS 570 ASTRAL

SILAGE HYBRID WITH HIGH PRODUCTION OF GREEN DOUGH AND GOOD PRESENCE OF GRAINS.

HIGHLIGHTS

• Excellent leaf-stem ratio • High production of green dough • Resistant to the main diseases of the sorghum crop • Seeds that provide ease at planting time.

RECOMENDACIÓN DE USO

GRAIN	<u> </u>
	······································
GRAIN HUMID SILAGE	····
SNAPLAGE	·····

MATURITY

GRAIN TYPE

Large / Tannin Free Reddish-brown

POPULATION (PLANTS/HA)

First Season Second Season 120,000 to 130,000 90,000 to 100,000

Early

DISEASE TOLERANCE | SORGHUM

123456789 HIGH **RUST**

ANTHRACNOSE

TURCICUM

123456789 HIGH

1 2 3 4 5 6 7 8 9 MODERATE

TECHNOLOGY

		\sim
RR-ROUNDUP RE	ADY ·····	0
VT PRO 2		0
VT PRO 3		0
VIP3		\bigcirc

ARCHITECTURE

2,70 to 3,00m

Normal

PLANT HEIGHT

High | Medium

INVESTMENT RESPONSE

SILAJE Flowering Days:

65 to 70 days 100 to 110 days

SILAGE QUALITY(%)

Harvest Days:

WHOLE PLANT

Crude protein (CP%) NDF

6,8% 66,3% 68%

















ANGOLA NIGERIA

SUDÁN



HIGH PRODUCTIVITY WITH EXCELLENT GRAIN QUALITY.

DESTAQUES

- Excellent productivity
- Excellent cost-benefit



RECOMENDACIÓN DE USO

GRAIN	\bigcirc
WHOLE PLANT SILAGE	
GRAIN HUMID SILAGE	\bigcirc
SNAPLAGE	\bigcirc

MATURITY

Medium / Tannin Free ● Red

Early

POPULATION (PLANTS/HA)

GRAIN TYPE

First Season 160,000 to 180,000 Second Season 140,000 to 160,000

DISEASE TOLERANCE | SORGHUM

RUST 12345678 9 MODERATE

ANTHRACNOSE 123456789 MODERATE

TURCICUM 123456789 HIGH

TECHNOLOGY

NON GMO		······ Ø
RR-ROUNDUP RE	ADY	
VTPR02		
VTPR03		
VIP3		

ARCHITECTURE Semi erect

PLANT HEIGHT 1,25 to 1,35m

(§) INVESTMENT RESPONSE Medium

GRAINS
Flowering Days:
Harvest Days:
48 a 52 dias
120 a 130 dias

ADAPTABILITY IN THE FOLLOWING COUNTRIES:



BOLIVIA











PARAGUAY ANGOLA

NIGERIA

SUDÁN

WHO INVESTS IN GENETICS AND TECHNOLOGY REAPS PRODUCTIVITY.







CORN AND SORGHUM SEEDS FOR HIGH QUALITY GRAINS AND SILAGE







VT PRO 2[™]



