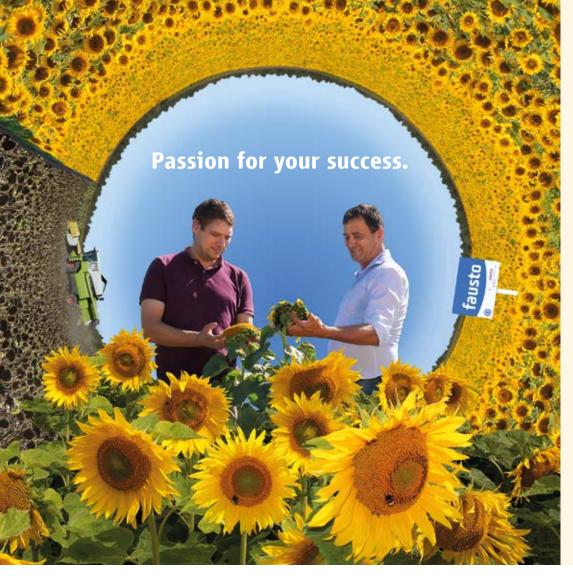




Sunflower varieties

2022/23



Sunflower – a crop for the future

Drought, extreme weather and changing policies in plant protection are the major challenges of agriculture today. Breeders and farmers are searching for solutions and have already made good progress: new or stronger resistances against pathogens and high temperatures. Innovative plant protection systems like SULFO and IMI can safe resources without damaging the crop (more information page 4).

Strube D&S is striving for more – we will keep looking for new and innovative solutions. We want to work hand in hand with the farmers to ensure their economic success. As a company, we are committed to becoming a sustainable partner with sustainable products, that are adapted to the farmer's needs and meet the oil industry's requirements. This will be the compass for our future strategic direction. Every project, action and campaign that is particularly dedicated towards sustainability and resource conservation in agriculture, is focused under the name VisionBlue[®].



Strube thinks further: OptiStart®

Homogenous stocks are crucial to successful farming: weed is suppressed, yielding is more efficient. With our new seed pelleting technology **OptiStart**® it is much easier to achieve homogenous and quick field emergence. As one of the leading sugar beet seed producers in Europe, we have decades of experience in the pelleting of seeds. With **OptiStart**®, we have transferred our know-how to sunflower seed and are proud to make these advantages of seed pelleting available to sunflower growers (more information on page 15).

vision>>**blue**

Supplying you with healthy, high-performing varieties is our motivation. To bring their full potential to the field, we offer you expert consultation on all aspects of seeds, varieties and sustainable, region-specific cultivation. For our common success.

VisionBlue® - conserving resources, securing the future.





Strube D&S GmbH is a German plant breeder and seed producer. As part of the **Deleplanque-Group** and with **SUET** as another partner, we supply seed for sugar beet, wheat, sunflowers, peas, and sweet corn in more than 35 countries.





Secure top yield with SULFO-technology



Controls effectively the most important weeds in sunflower.

Good control

in 2-4 leave stadium:

Very good control in 2-4 leave stadium:

	7. 1			
Amaranthus blitoides	Fumaria officinalis	Senecio vulgaris	Abutilon theophrasti	
Amaranthus retroflexus	Lamium amplexicaule	Sinapis arvensis	Anagallis arvensis	
Cirsium arvense	Papaver rhoeas	Solanum nigrum	Anthemis arvensis	
Chenopodium album	Picris echioides	Sonchus asper	Chrozophora tinctoria	
Chenopodium vulvaria	Polygonum aviculare	Thlaspi arvense	Galium aparine	
Datura stramonium	Portulaca oleracea	Xanthium spinosum	Heliotropium europaeum	
Diplotaxis muralis	Ridolfia segetum	Xanthium strumarium	Taraxacum officinale	
Ecballium elaterium	Salsola kali			

Strubes' Sulfo varieties + Sulfo technology = higher yield with better quality

Best weed control of problematic weeds



Strube has a number of SULFO varieties in the sunflower portfolio. These allow for an effective control of the most common weeds that are relevant in sunflower cultivation. Moreover, the SULFO treatment is less aggressive compared with other herbicide systems and offers various advantages:

Less herbicide residues in the soil, less risk of damage in the rotation with cereal. Sunflower plants stay strong and green and continue their development and growth. Less phytotoxic material in the crop.

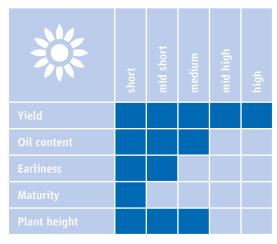


"A head heavy with seeds even under difficult conditions

Eloy Pariente, Farmer from Villaverde de Medina, North Spain

fausto_st

The King of Sulfo varieties.



The information provided in this document is for guidance only and may vary according to climatic, soil and ecological conditions and cultivation techniques. For more information, please contact the Strube sales representative for your region.

- Excellent yield and yield stability
- Early at ripening
- Good behaviour against diseases



What does sunflower cultivation mean in Villaverde? Why is it important?

Sunflower just fits well into the cereal rotation in many circumstances without causing big investments. With sunflower, we can equalise the workload throughout the year, instead of having all agronomic work in autumn and winter.

What do you do about weed control?

The first step is a good crop rotation, that helps to break the weed cycles. In our region, 25 % of the area is sown with sunflower. And 95 % of these are Sulfo varieties. The Sulfo technology helps us to control virtually all weeds that we have in summer in this area. This helps a lot to improve production and cut costs. An absolute plus: We have seen no problems whatsoever with the following crops.

Strube recommends fausto_st for your region. What do you think about this hybrid?

I really liked the variety. In the South of Spain, we have very dry climate and hard growing conditions. **fausto_**st has shown a very stable performance on a high level, even under these conditions. The head filled very well, while other varieties had difficulties. **fausto_**st convinced me with the best results.



SULFO

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SULFO 🔗

"celso_st was my most productive sunflower variety last season"

farm manager in the region of Trigueros, South S

SULFO

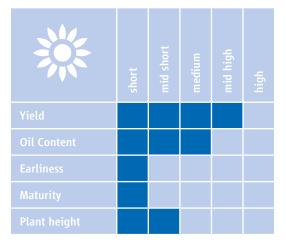
Linoleic

- I
- Resistance to broomrape
- Head position

SULFO

celso_st

The earliest Sulfo variety resistant to broomrape F+



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- High yield in wide range of environments
- Strong seedling vigour
- Best maturity in the segment

Also available: **mero_**St Sulfo



A Sulfo variety for any condition

Strube believes in the future of the Sulfo technology. As a company, we are making a commitment because we see many advantages. What is your opinion about Sulfo?

This technology is very important in my region in the South of Spain. In Trigueros, 80 % of the sunflowers are Sulfo varieties. This is because it controls various types of weeds that can affect the sunflower very quickly and reliably. The Sulfo technology makes sunflower cultivation more effective and saves resources at the same time.

How does Sulfo compare to other technologies of weed control in sunflower?

We have tested other systems. But to be honest, we had to invest more per hectare to get similar results. In some types of soil, there were residuality problems in wheat. The farmers in our region have now seen what can be achieved with the Sulfo technology, and I believe it will soon be the most important weed control system in our region.

celso_st is the Sulfo variety that we are recommending for your region. You have grown it. What was your experience?

I am very content with this variety. **celso**_st has proven itself in various types of soil and it was my most productive sunflower variety. I was impressed by the very good field emergence/seedling vigour – I have not seen such strong young sunflowers in a long time. The variety also matures very early and has produced up to 2.5 t/ha. For our region, it is the perfect sunflower hybrid.



Clearfield[®]**Plus** Production System for Sunflower fabulo_clp

Top yield with a lovely head

***	short	mid short	medium	mid high	high
Yield					
Oil content					
Earliness					
Maturity					
Plant height					

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- Excellent yield and oil content
- Medium height
- Nice head and excellent seed-set

Also available:

conquest Clearfield[®] Plus

> imidor **Clearfield®**



- Top yield in stress condition
- Strong seed vigour
- The first ready to harvest

Also available:

orfeo Classic





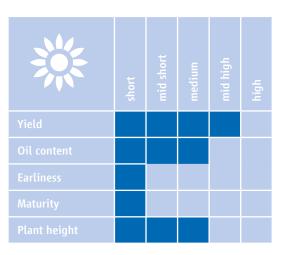
broomrape

position

classic

basco_st

The earliest in any environment



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CL PLUS

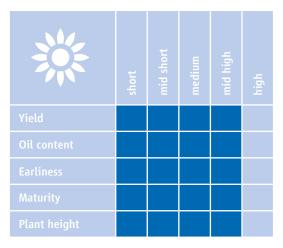
Resistance to broomrape

Head position

Clearfield[®]**Plus** Production System for Sunflower

sores_st

The new High Oleic generation



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- High Oleic combined with weed control
- Excellent seed set
- Strong against most diseases

Also available as High Oleic:





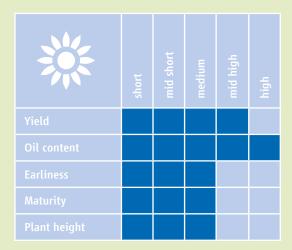
- Excellent yield
- Top oil content
- Our BIO solution for a sustainable cultivation

broomrape

Head position

carisma_st

Best in class for oil content

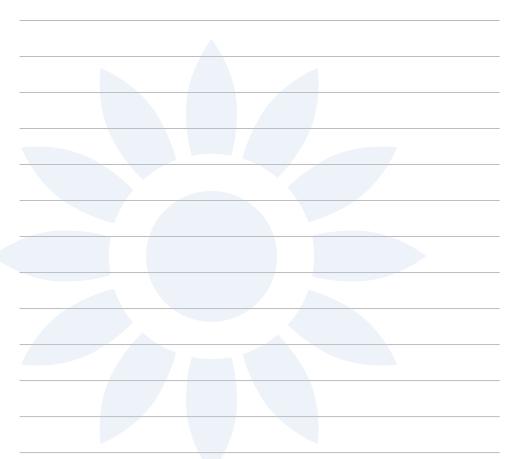


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Notes:

Hightech

in Seed Processing



optistart®

Now available!

- ✓ Better plant distribution
- \checkmark Homogeneous youth development
- ✓ Simultaneous flowering
- ✓ Rapid maturing
- ✓ Suppresses weed through a fast soil cover of the plants
- ✓ Improves harvesting conditions and yield

OptiStart[®] is the new pelleting technology from Strube D&S for sunflower seed. It was developed through many years of experience in seed pelleting and guarantees extremely uniform seed calibers.





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