



PROTECT

Protection against major pests that attack soybeans like African bollworm

One of the main benefits of **INTACTA RR2 PRO** technology is the protection against the main pests of the soybean crop. It is important that farmers still carry out constant monitoring and use the additional measures of Integrated Pest Management (IPM) to ensure the efficacy of the trait.

What is the African Bollworm? (*Helicoverpa armigera*)

- Lepidopteran insect pest is capable of causing significant economic losses for growers.
- The life cycle of this species is normally completed between 20 to 60 days.
- Feeds on a broad host range.
- Damages plants through direct feeding on leaves and pods, leading to economic losses for farmers.
- Secondary infections (of insect-damaged pods) by opportunistic fungi and bacteria can significantly reduce the quality of the harvested soybeans and ultimately lead to further economic woes for the farmer.
- Controlling these insect pests effectively will lead to yields of higher quantity and quality.



FOLIAR DAMAGE CAUSED BY AFRICAN BOLLWORM

STANDARD



INTACTA RR2 PRO®

POD DAMAGE CAUSED BY AFRICAN BOLLWORM

STANDARD



INTACTA RR2 PRO®

EXPERIENCE THE REVOLUTION IN SOYBEAN TECHNOLOGY

What does sustainable farming mean to you? To us, it means exploring ways to grow more with less, to increase yield potential, to provide optimal protection against insect pests threatening your soybean crops and to reduce your use of resources. Over the years, the need has grown for more reliable and sustainable soybean production on both a local and a global level.

With **Bayer's** new soybean trait **INTACTA RR2 PRO®**, we are opening a world of possibilities for your farm, providing benefits that will help you improve productivity, yield potential and most importantly protection from key insect pests.

DID YOU KNOW?

INTACTA RR2 PRO is the first soybean trait to be approved by the South African regulatory body in 20 years.



HOW DOES INTACTA RR2 PRO TECHNOLOGY WORK?

The trait enables resistance in the soybean plant to lepidopteran insects by selectively damaging their midgut lining.

- Resistance to African Bollworm (*Helicoverpa armigera*) is conferred through a *Bt* protein produced in **INTACTA RR2 PRO** Soybeans. The Cry1Ac *Bt* protein is highly efficacious against the African Bollworm.
- The larval stage of the African Bollworm feeds on the **INTACTA RR2 PRO** soybeans, ingesting the *Bt* protein.
- Within 72 hours the larvae stop feeding and die.



IMPROVE

- Soybean plants with the RR2 PRO gene tolerate glyphosate treatments considerably better compared to previous systems.
- Unsurpassed crop safety with the RR2 PRO gene.
- This control allows farmers to manage weeds effectively during early growth periods without hindering soybean plant growth.



MAXIMISE

MAXIMISE your soybean cropping system by enabling you to produce more with less. **INTACTA RR2 PRO** technology is key in helping farmers increase their yield potential and farm more profitably.

- Better control of the target organism through the *Bt* trait.
- With the precise placement of the new RR2 PRO gene in the DNA of the soybean, you will experience a positive yield performance.
- Lower input cost by eliminating insecticide applications and this also benefits the beneficial insect population.
- Access to new soybean varieties.
- Reliable and sustainable local soybean production.
- Global competitiveness.
- Helping farmers to improve and to produce more with less.

REFUGE AREA:

WHY IS IT IMPORTANT TO PLANT A REFUGE AREA?

To retain the advantages of *Bt* technology, it is important to plant a refuge area. Refuge should be planted according to the minimum recommendations indicated for soybean which is 20% of the total planted area.

The following requirements are set for the 20% structured refuge when planting INTACTA RR2 PRO:

- The maximum distance between the refuge area and soybean plantation should be 400 meters.
- Varieties of the same growth class should be used.
- The refuge area (non-*Bt*) must be located on the same farm and under the same growing conditions where **INTACTA RR2 PRO** technology is planted.

It is important that farmers still carry out constant monitoring and use the additional measures of **Integrated Pest Management (IPM)** to ensure the efficacy of the trait.

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For more information on **INTACTA RR2 PRO** scan the QR-code below:



BENEFITS

HOW CAN INTACTA RR2 PRO® TECHNOLOGY BENEFIT YOUR FARM?

INTACTA RR2 PRO technology holds three key benefits that make this trait stand out in the market.



PROTECT: Protect against serious feeding damage caused by African bollworm.



IMPROVE: Improved glyphosate tolerance provided by **Roundup Ready**® (RR2) technology.



MAXIMISE: Increased yield potential through repositioned herbicide tolerant trait on the soybean DNA.



INTACTA RR2 PRO®

TECHNOLOGY AND INNOVATION