

REDUCING POD SHATTER AND SECURING YIELD FOR GROWERS



SEALICIT®

With PSI® 759 Precision Technology



SEALICIT[®] WITH PSI[®]759 PRECISION TECHNOLOGY

WHAT IS THE CHALLENGE?

Soybean & Canola/Oilseed Rape (OSR) crops develop dry fruits that shatter along a specifically developed junction on the pod. The pod shattering junction provides an efficient, and successful seed dispersal mechanism for the plant but it can limit crop yield for growers, with average yearly seed losses at 15-25%.

WHAT IS SEALICIT[®]?

SEALICIT[®] with PSI[®] 759 Precision Technology helps farmers maximise yield and buy time without compromising on yield by allowing full ripening of pods without shattering. As a result, this provides a new level of harvest flexibility for farmers through delayed harvests and variety choice as well as a wide application window and improving field hygiene for the following rotations.

SEALICIT[®] with PSI[®] 759 Precision Technology increases pod shattering resistance. SEALICIT[®] utilises a novel combination of plant signalling biomolecules, that naturally programme the plant to modulate the expression level of major genes associated with pod shatter, delivering maximum yield and security.

THE BENEFITS

- **Well defined Mode of Action (MOA)**
Maximises yield security
- **Gives growers time**
Allows full ripening of pods without shattering enabling a uniform harvest
- **Flexibility with variety choice**
Growers can focus on varieties that focus on yield instead of pod resistance
- **Pre-flower application**
Avoid extra machinery passes close to harvest
- **Field hygiene**
Improves field hygiene by reducing volunteers in field for following seasons

PSI[®] PRECISION TECHNOLOGY

Plant Signal Induction (PSI[®]) Precision Technology finetunes the bioactivity of biostimulant extracts to create and guide the plants natural response system to target well defined responses in the plant. Through precision biostimulation, plant signalling biomolecules are engineered to target specific crop issues and growing obstacles that farmers face. PSI[®]759 Precision Technology promotes water use efficiency under water deficit conditions.

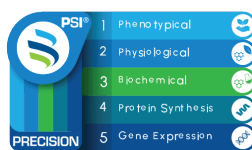
Brandon Bioscience understands what makes a high performing biostimulant. Our Plant Signal Induction (PSI[®]) platform means that we validate PSI[®]759 chemically, biologically and functionally to understand not only what it is but what it does and how it does it.



Sourcing naturally occurring biostimulants in nature



Careful extraction and characterisation via PSI[®] Technology



PSI[®] Precision Technology finetunes bioactivity to target a specific response in a plant



PSI[®] Precision Technology guides the plant's natural system creating specific traits



Reduces pod shatter and secures yield

MODE OF ACTION



Downregulation of key genes involved in pod shatter control (AtIND, AtFUL and AtRPL).



Reduction in AtIND and lignin biosynthesis produces stronger pods with reduced shatter

PRE-FLOWER APPLICATION

SEALICIT[®] is applied before flowering between stages BBCH 16–50. Pre-flower application avoids machinery passes close to harvest, eliminating crop damage & yield loss. SEALICIT[®]'s systemic Mode of Action ensures comprehensive protection come harvest time. Unlike pod sealants, early application and no separate pass gives growers added convenience.

EASY TO MEASURE, POUR & STORE

SEALICIT[®]'s high concentration means a lower application rate. This means less packaging, less transportation costs, and less storage space utilised.

AVAILABLE IN



5L



10L



UNTREATED



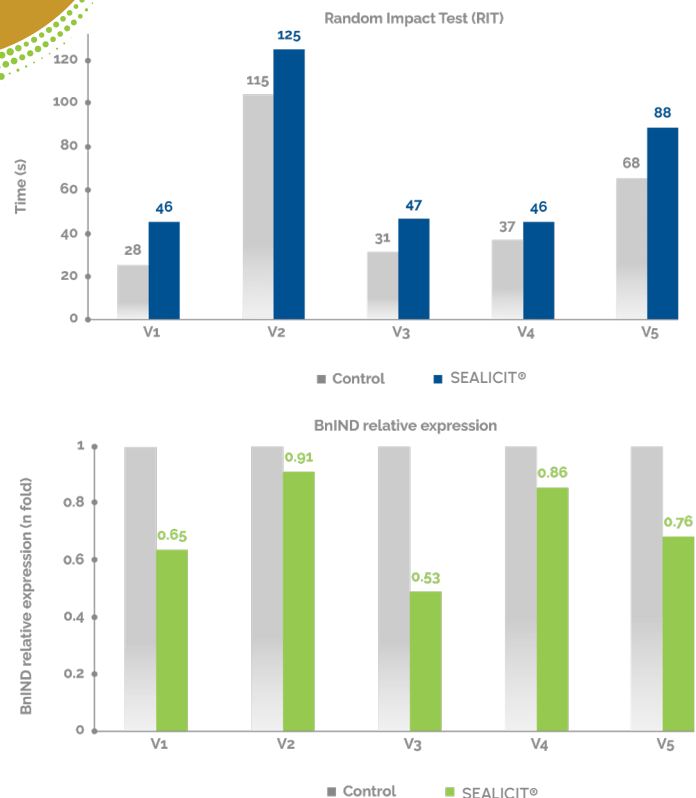
TREATED WITH SEALICIT[®]






Every batch of SEALICIT[®] will carry a positive PCR result. This means that every batch produced is bio-assayed to confirm that it consistently downregulates IND, the master regulator gene responsible for pod shatter

PROVEN IN FIELD

Data shows that one single foliar spray of SEALICIT[®] with PSI[®] 759 Precision Technology improves the pod shattering resistance in different OSR varieties (see Łangowski et al., 2019). Results obtained in independent field trials showed that SEALICIT[®] increased pod shattering resistance through the standardised random impact test (RIT). This improvement was associated to the downregulation of INDEHISCENT (IND), the master regulator gene responsible for pod shatter in OSR. Overall, SEALICIT[®] has been tested in more than 110 field trials in OSR and soybean, increasing seed yield on average by 4.5%.



DIRECTIONS FOR USE

| Method of Application | Crop | Dosage Foliar (L/ha) | Application Time |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------|
|  Foliar |  Canola/ Oilseed Rape | 1.0 | BBCH 16 - 50 Strictly apply before flowering |
| |  Soybean | 0.75 | V2 - V6 Strictly apply before flowering |

INDEPENDENTLY VERIFIED



SEALICIT® is approved under EU Fertilising Products Regulation (FPR) 2019/1009 and carries the CE mark on all product packaging. The EU FPR allows Brandon Bioscience to specify the effects of SEALICIT® and make these claims on the product label. The justification of SEALICIT® claim was verified by an independent national Notified Body following submission of a dossier of technical information and test results.

VALIDATED IN SCIENTIFIC LITERATURE

There are 2 published peer-reviewed papers on SEALICIT®. Working with key institutions & universities ensures our precision biostimulants are backed by credible sources and our customers can trust PSI® Technology backed solutions.



Łangowski et al., (2021)
Frontiers in Plant Science

Ascophyllum nodosum Extract (SEALICIT®) Boosts Soybean Yield Through Reduction of Pod Shattering-Related Seed Loss and Enhanced Seed Production



Łangowski et al., (2019)
Scientific Reports

A plant biostimulant from the seaweed *Ascophyllum nodosum* (Sealicit) reduces podshatter and yield loss in oilseed rape through modulation of IND expression

Working with strategic partners in key regions, we deliver SEALICIT® globally. To enquire about our distribution partners in a specific country or to connect with our team, please do not hesitate to contact us.

UNRIVALLED TECHNICAL SUPPORT

With our unrivalled technical support, we help in transferring our agronomic expertise and knowledge to customers & growers so that they can get the most out of SEALICIT®. We employ the right people with the skills and knowledge in the right places to deliver smart & efficient solutions.



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