

Net Contents: 10 Oz. (284 grams) Treats 200 x 140K units soybean seed

Shake well before measurement and use.

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2002-AUGUS

# TM **Encapsulated Inoculant** Induced Gene Expression Triggers

## **Commercial Treater Application Recommendations**

1. Please refer to Excalibre-SA™ Technical Sheet, included, for specific recommendations. 2. Fill the pre-mix tank with the appropriate amount of water to achieve detailed coverage on the seed. 3. Use only non-chlorinated water. 4. Measure and apply Excalibre-SA™ Soybean Inoculant at the rate of 0.05 ounce per 140k of seed. Please refer to the Excalibre-SA™ Technical Sheet, included, for specific recommendations. 5. Pour measured amount of Excalibre-SA™ into premix tank liquid and apply to inoculate desired amount of soybean seed. 6. Use Extender for Excalibre™ to achieve desired extended on-seed shelf life. 7. Maintain agitation.

Excalibre-SA™ with seed treatments and Extenders 1. Excalibre-SA™ may be used in combination with approved, commercially applied seed treatments. 2. Extender for Excalibre™ must be added to achieve an extended on-seed planting window. 3. For a complete list of compatible seed treatments, instructions for use of approved polymer extenders, and recommendations "days on-seed planting window," go to ABM1st.com or call Advanced Biological Marketing™ at 1-877-617-2461.

Recommendations for Adverse Conditions or new "virgin" soybean fields If: Soil has not hosted the specific legume for more than 3 years; Soil pH is less than 5.8 (the pH should be adjusted by liming prior to inoculation); Soil organic matter is less than 1%; Drought or flooding has occurred; Topsoil conditions exceed 80°F; Soil erosion has occurred; or When using seed or soil treatments or chemicals injurious to soil bacteria and inoculants.

To maximize yield potential under any of the conditions above, follow these recommendations: Use a double (2X) rate of inoculants. A. Apply a 1X rate of Excalibre-SA no more than 30 days prior to planting. B. Additionally, applying at planting, a 1X rate of America's Best Inoculant® formulation: ABI Sterile Peat.

**Limited Warranty** Advanced Biological Marketing Guarantees the cultures in this package will inoculate the quantity and kind of seed specified on this package when: (1) Product is used prior to expiration date; (2) Product is stored properly; (3) Product is used under favorable soil and weather conditions; (4) Product is used in accordance with directions for use noted on this package. ADVANCED BIOLOGICAL MARKETING MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS, WARRANTY OF MERCHANTABILITY, OR WARRANTY FOR A PARTICULAR PURPOSE, OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. ADVANCED BIOLOGICAL MARKETING'S LIABILITY IS HEREBY EXPRESSLY LIMITED TO THE PURCHASE PRICE OF PRODUCT ONLY. IN NO EVENT SHALL ADVANCED BIOLOGICAL MARKETING OR ANY SELLER OF THIS PRODUCT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT

CONTAINS LIVING ORGANISMS. STORE IN A COOL DRY PLACE OUT OF DIRECT SUNLIGHT CAUTION: Excalibre SA™ may be used either on untreated seed, or seed that has been treated with a fungicide or insecticide. Wear appropriate protective gear, avoid skin contact or breathing of dust, and follow the caution statements of the other treatments if the seed has been pretreated.

individuals should wear standard protective clothing and equipment including gloves, safety glasses, and an NIOSH approved respirator. In case of allergic contact with eyes or skin, immediately flush the exposed area with water. Seek medical attention if irritation develops or persists. Excalibre SA Encapsulated Inoculant combines the nitrogen-fixing capability of Rhizobia with Trichoderma's ability to improve nutrient

Individuals allergic to molds and or fungi should take precautions to avoid contact with the eyes or skin. To minimize risk of allergic exposure,



availability to plants.

CONTAINS NON-PLANT FOOD INGREDIENTS **GUARANTEED ANALYSIS** 

Active Ingredients: 1.50% Bradyrhizobium japonicum 1.1x10<sup>11</sup> cfu/g; 0.3%

Trichoderma virens 9x108 cfu/g

Inert Ingredients: 98.2% Cellulose

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**Excalibre-SA™ for Soybeans** delivers the growth stimulant benefits of the **iGET™** Technology PLUS the nitrogen fixation benefits of industry leading Excalibre™ soybean inoculant. Excalibre's triple stack rhizobia

package assures optimum N-fixation under a variety of soil conditions, including hot dry soils, cool and wet conditions, and offers more aggressive nodulation in carryover nitrate situations.

#### **Technical Information**

Excalibre-SA Package Size:	One pail contains 10 oz. by weight (284 grams)	Exc Formulation/Spec	alibre-SA cification:	Dry powder  1.1 x 10 <sup>11</sup> Bradyrhizobia cfu/gm 9 x 10 <sup>8</sup> Trichoderma cfu/gm
Excalibre-SA Application Rate:	0.05 oz. (by weight) per 140,000 soybean seed	One Excalibre-S	Package A Treats:	200 x 140k units soybean seed
Extender Pack Size	One pack contains 100 fl. oz.	Extender For	mulation:	Starch-based liquid polymer
Extender Application Rate:	.5 oz. (by volume) per 140,000 soybean seed Extender should always be mixed and applied with Excalibre-SA	One Package	Extender Treats:	200 x 140k units soybean seed
Case Contains:	2 x 10 oz. packs per case Excalibre-SA 2 x 100 fl. oz. packs per case Extender	One Cas	se Treats:	400 x 140k units soybean seed
Applications:	Excalibre-SA is a suspendable powder designed for use in a liquid tank mix in commercial seed treatment systems with good agitation to maintain product suspension. For good seed coverage, ABM generally recommends a minimum of 2.5 oz. liquid per 140,000 seed, in any combination of non-chlorinated water and approved liquid seed treatments. Experienced seed treaters may choose to decrease the total volume applied.  1. Remove or replace screens. Maintain agitation at all times. (Contact ABM for recommendations).  2. Measure Excalibre-SA by weight only, measure extender by volume only.  3. Please refer also to "detailed mixing instructions" on the reverse of this sheet.  4. For best results do not apply with atomization and use separate mix tank for inoculant only.			
Tank Mix Time Restrictions:	To maintain inoculants viability, there is a maximum time Excalibre-SA can be kept in the mix tank:  1. Excalibre-SA alone with non-chlorinated water should be applied to seed within 24 hours.  2. With approved seed treatments, Excalibre should be applied to seed within 4 hours.			
	Excalibre-SA is tank-mix compatible with certain seed treatments and can be co-applied several days prior to planting. Follow the guidelines below or refer to <a href="https://www.abm1st.com">www.abm1st.com</a> for a complete listing of approved products:			
Compatibility	Excalibre-SA and Extender only, or co-applied with: Acceleron, ApronMaxx RFC, ApronMaxx RTA, CruiserMaxx Pak or Gaucho SB Flowable*		Maximum planting window is 120 days after seed is treated and seed coat reaches 50°F	
with Seed Treatments:	Excalibre-SA and Extender co-applied with: Trilex AL Flowable, Allegiance with Trilex FL*, Innovate System, Rancona, Senator		Maximum planting window is 90 days after seed is treated and seed coat reaches 50°F	
Trademarks of their Respective owners or manufactures	Excalibre-SA and Extender co-applied with: Soy-Gard* products		Maximum planting window is 70 days after seed is treated and seed coat reaches 50°F	
New Soybean Ground or Adverse Crop Conditions	Recommendations for Adverse Conditions or New "Virgin" Soybean Fields – If soil has not hosted the specific legume for more than three (3) years; Soil pH is less than 5.8 (The pH should be adjusted by liming prior to inoculation); Soil pH is more than 8.5; Soil organic matter is less than 1%; Drought or flooding has occurred; Topsoil conditions exceed 80° F; Soil erosion, or with the use of soil treatments and chemicals injurious to soil bacteria and inoculants, to Maximize Soybean Yield Potential: When planting soybeans under the conditions listed above, ABM recommends a double (2X) rate of inoculants. Follow these recommendations.  If using an Excalibre product, achieve a 2X inoculants rate as follows:  a. Apply a 1X rate of Excalibre-SA no more than 30 days prior to planting.  b. Additionally, apply at planting, a 1X rate of an America's Best Inoculant formulation:  ABI Sterile Peat, ABI Sterile Liquid, ABI MegaPack			
	Please contact your ABM representative at 877-617-2461 for a specific recommendation.  -Ex, ABI Inoculants and ABI MegaPack are trademarks of ABM. America's Best Inoculant is registered trademark of ABM.			

Excalibre-SA, Graph-Ex, ABI Inoculants and ABI MegaPack are trademarks of ABM. America's Best Inoculant is registered trademark of ABM.

\* Trademarks or Registered Trademarks of their respective owners, marketers or manufacturers.





### **Detailed Mixing & Application Instructions**

Excalibre SA Encapsulated Inoculant is a wettable powder combination containing a highly concentrated formulation of rhizobia and iGET technology, using of a small amount of product to achieve high active ingredient seed loading, while keeping the volume of seed-bridging liquid to a minimum.

#### Mixing order:

Best results are achieved when bucket slurring any needed water, adding Excalibre SA mixing completely then adding the extender polymer

- (1) Calculate batch quantities for all mix components
- (2) Measure and add liquids, to a mix container or treatment tank first.
- (3) Measure and add Excalibre SA powder to the mix container or treatment tank containing liquids/
- (4) Mix or stir contents in the container, only after powder has dispersed, add extender
- (5) Agitate and add to seed treater tank if in a separate container
- (6) Maintain agitation as long as Excalibre SA is in the treatment tank
- (7) Adhere to tank mix time restrictions listed in "Technical Information"

Measure Excalibre SA by weight: If an accurate scale is not available, contact your ABM representative or call 877-617-2461, and a scale will be supplied. (Alternatively, approximate volume equivalents are included on the batch sheet provided in the packaging.)

**Extender Polymer:** The extender polymer included with Excalibre SA is an integral part of the Excalibre SA system, and must be used in accordance with label in instructions for proper results.

**Agitation:** Excalibre SA is a highly dispersible wettable powder. Good mix tank agitation is necessary to maintain suspension. If the mix tank does not have agitation, ABM will easily and economically provide and install a **recirculation kit** to most popular treaters.

In-line Screens: Most typical-mesh in-line screens will require simple modification.

(1) Remove line screens entirely

Take care to prevent soybean seed from entering the mix tank and plugging hoses.

Or:

(2) Install 16 mesh screens. This size mesh will allow Excalibre SA to pass through

For screens, contact your ABM representative or call 877-617-2461. ABM will supply a replacement screen with cartridge at no charge. (Be sure to know your line diameter.)

**Spray Nozzles:** Excalibre SA suspension **will not** successfully flow through typical seed treater nozzles including flat fans. Avoid the use of a spray nozzles with Excalibre SA. ABM can easily and economically provide and install an alternative for most popular treaters spray nozzles.

**Hose lines:** Excalibre SA may settle out in hose lines with a combination of large diameter hoses and long hose length (for example, 20 feet of 1 inch diameter hose). If this occurs, shorten the hose length as is possible, and change the hose to a smaller diameter to increase the velocity of material flow. Recalibrate pump. Contact your ABM representative or call 877-617-2461 for tech support.

