

# SUBTILEX™

Biological Fungicide  
MASTER LABEL

FOR FORMULATING INTO REGISTERED  
END-USE PRODUCTS AND FOR USE AS A  
SEED TREATMENT, IN-FURROW  
APPLICATION OR INCORPORATION INTO  
PEAT MOSS OR GROWING MEDIA

### ACTIVE INGREDIENT:

*Bacillus subtilis*, MBI 600 (not less than  
5.5 X 10<sup>10</sup> viable spores per gram) ..... 2.75%

INERT INGREDIENTS:..... 97.25%

Total:..... 100.00%

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See Additional Precautionary Statements on  
Side (Back) Panel

EPA Reg. No. 71840-1 EPA Est. No. \_\_\_\_\_

U.S. Patent No. 5,061,495

U.S. Patent No. 5,344,647

Canada Patent No. 1,324,099

Another quality biological product from:

Becker Underwood, Inc.

801 Dayton Avenue, PO Box 667

Ames, IA 50010

Tel. (515) 232-5907 (800) 232-5907

[www.beckerunderwood.com](http://www.beckerunderwood.com)

**ACCEPTED** Batch Code: \_\_\_\_\_

15/12/10/04

SUBTILEX is a Reg.™ of Becker Underwood, Inc.  
*Bacillus subtilis*, MBI 600 strain is a product of Becker  
 Underwood, Inc.

Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act,  
 as amended, for the pesticide  
 registered under stamped August 18, 2003  
 EPA Reg. No. 71840-1

FIRST AID	
If on skin:	- Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15 – 20 minutes. - Call a poison control center or doctor for treatment advice
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

**PRECAUTIONARY STATEMENTS**  
**Hazards to Humans and Domestic Animals**  
**CAUTION:** Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Personal Protective Equipment (PPE):**  
 Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks. As a general precaution when exposed to concentrations of living microbial products such as this, all mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

**User Safety Requirements:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards:**  
**For Reformulation Use:** Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public water unless this product is specifically identified and addressed in a NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment authority. For guidance, contact your state water Board or Regional Office of the EPA.

**For Seed Treatment:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwater. Do not apply this product while bees are actively visiting the area.

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions for exceptions pertaining to the statements in this labeling about PPE, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water: is coveralls, waterproof gloves and shoes plus socks.

SUBTILEX™ contains bacteria, which colonize on the developing root system, suppressing disease organisms such as *Fusarium*, *Rhizoctonia Alternaria* and *Aspergillus* that attack root systems. When used with a chemical seed treatment, the combination of chemicals and SUBTILEX™ provides protection to the roots for a much longer time than with chemicals alone. As the root system develops, the bacteria grow with the roots extending the protection throughout the growing season. As a result of this biological protection, a vigorous root system is established by the plant, which often results in more uniform stands and greater yields.

In addition, SUBTILEX™ has been shown to increase the amount of nodulation by nitrogen-fixing bacteria when used on many legumes. This improvement in nodulation is a result of a healthier root system allowing more sites for nodules to form from inoculated or naturally occurring soil borne nitrogen-fixing bacteria.

**FOR REFORMULATION INTO REGISTERED END-USE PRODUCTS**

USE PATTERN: This product is for use for formulators in the manufacture of agricultural bio-fungicide products or pre-bagged peat moss or growing media products, offered for sale to the public, and which are duly registered with the Environmental Protection Agency, Washington, D.C.

FORMULATION ASSISTANCE: Additional information regarding specific problems in formulation involving this product may be obtained by writing: Becker Underwood, Inc. 801 Dayton Ave., PO Box 667, Ames, IA 50010.

**FOR USE AS A SEED TREATMENT**

SUBTILEX™ may be applied as a water-based slurry with inoculants and other registered seed treatment insecticides and fungicides through standard slurry or mist commercial seed treatment equipment. To mix, first add the inoculant/chemical insecticides and / or fungicides to the slurry mix with approximately ½ of the required water. Slowly add the SUBTILEX™ to the slurry until a uniform suspension is obtained. Add the remainder of the required water and maintain continuous agitation. Do not store mixed slurries for longer than 72 hours.

**SEED TREATMENT APPLICATION RATES:**

SUBTILEX™ may be used in combination with many inoculants and registered seed treatment fungicides and insecticides. Pre-test for compatibility with other seed treatment products.

**COTTON:** For suppression of *Rhizoctonia* and *Fusarium* seedling diseases, and *Fusarium* wilt, apply 0.25 – 1.0 ounces per 100 lbs. of seed.

**SEED AND POD VEGETABLES:** (such as) green beans, snap beans, lima beans, kidney beans, navy beans, pinto beans, wax beans, pole beans, garden peas, peas and field beans: For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, apply 0.25 – 1.0 ounces per 100 lbs. of seed. For improvement of nodulation by *Rhizobium* in fields where appropriate strains are detectable, apply at 0.25 – 0.5 ounces per 100 lbs. of seed.

**PEANUTS:** For suppression of root diseases caused by *Rhizoctonia*, *Fusarium* and *Aspergillus*, and for improvement of nodulation by *Rhizobium*, apply at 0.25 – 0.5 ounces per 100 lbs. of seed as a dry blend with inoculants and registered seed treatment fungicides.

**SOYBEANS:** For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for

improvement of nodulation by *Bradyrhizobium*, apply at 0.05 – 0.5 ounces per 100 lbs. of seed.

**ALFALFA, FORAGE AND TURF GRASSES:** For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for stimulation of germination and plant vigor, apply at a rate of 0.1 – 5.0 ounces (large – small seed varieties respectively) per 100 lbs. of seed as a dry blend, or mixed with inoculants and registered seed treatments or seed coating agents.

**WHEAT AND BARLEY:** For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, apply 0.05 – 0.25 ounces per 100 lbs. of seed.

**CORN:** (Field and Sweet) For suppression of root disease caused by *Fusarium* and *Pythium*, apply 0.25 – 1.0 ounces per 100 lbs of seed.

**FOR USE AS AN IN-FURROW TREATMENT**

SUBTILEX™ may be applied as a water-based suspension with other in-furrow treatments (including Becker Underwood HiStick L Liquid Rhizobium inoculant) via standard commercial application machinery. To mix, first add the pesticide or Rhizobium liquid inoculant to the mix tank with approximately ½ of the required water. Slowly add the SUBTILEX™ to the slurry until a uniform suspension is obtained. Add the remainder of the required water and maintain continuous agitation. Apply SUBTILEX™ in 5 – 20 gallons of water per acre. Do not store mixed slurries for longer than 24 hours.

**COTTON; SEED AND POD VEGETABLES; PEANUTS; SOYBEANS; ALFALFA; FORAGE AND TURF GRASSES; WHEAT AND BARLEY; CORN:** apply at 0.05 – 0.5 ounces per acre.

**FOR INCORPORATION INTO PEAT MOSS OR GROWING MEDIA**

SUBTILEX™ may be applied as a water-based slurry with/without other registered seed treatment

insecticide, fungicides or fertilizers. Pretest for compatibility with seed treatment products.

**APPLICATION RATES:** Add SUBTILEX™ to peat moss or soil-based growing media at a rate of 0.53 – 5.3 ounces per 100 cubic yards of loose growing media.

First mix the required amount of SUBTILEX™ with water (at the equivalent rate of 0.53 – 5.3 ounces / 131 gallons). Agitate continuously and then apply evenly with conventional spray equipment to the growing media.

**IMPORTANT:** Treated peat moss or growing media is only for non-bearing, non-fruiting plant use in protected growing environments (e.g. glasshouse or greenhouse), and is not for use in non-protected environments (e.g. non-contained nurseries or slat houses).

#### **CHEMIGATION**

Do not apply this product through any type of irrigation system.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water by cleaning of equipment or disposal wastes.

**STORAGE:** Store in a dry place.

**PRODUCT DISPOSAL:** Wastes resulting from the use of this product may be disposed on site, or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Completely empty package by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into mixing equipment. Then dispose of package in a sanitary landfill or by incineration if allowed by State and local authorities. Dispose of box in the same manner. Do not reuse package or box.

**NOTICE – READ CAREFULLY CONDITIONS OF SALE AND LIMITED WARRANTY STATEMENT**  
NOTICE: Becker Underwood, Inc. warrants that this product conforms to the specifications on the

label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below.

Becker Underwood, Inc. MAKES NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY except as what is claimed on the label.

**Inherent Risks of Use:** It is impossible to eliminate all risks associated with the use of this product. Lack of performance, injury, or other unintended consequences may result because of such factors as use of the product contrary to strict label instructions and established safe practice, abnormal conditions (such as excessive rainfall, drought, and Acts of God), presence of other materials, use in combinations with other materials, the manner of application, or other factors, all of which are beyond control of Becker Underwood, Inc., or the seller. All such risks shall be assumed by the buyer.

**Limitation of Remedies:** The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Becker Underwood, Inc.'s election, one of the following: 1) replacement of the amount of product used; or 2) refund of the purchase price paid for the product. Becker Underwood, Inc. shall not be liable for losses or damages resulting from handling, storage, or use of this product unless Becker Underwood Inc. is promptly notified of such loss or damage in writing. In no case shall Becker Underwood Inc. be liable for consequential or incidental damages or losses. Becker Underwood, Inc. neither assumes, nor authorizes any person to assume for it, any other liability in connection with the sale, storage, use, or handling of this product other than as expressly set forth herein.