FOR USE AS A SEED TREATMENT

Active Ingredient:
S-Abscisic Acid.................. 25.0% w/v
Other Ingredients............... 75.0% w/v
Total............................... 100.0% w/v

See attached enclosure for First Aid, Precautionary Statements, Storage & Disposal Statements and Directions for Use.

Contains a total of 25 g of S-Abscisic Acid (S-ABA) in 100 ml of product. Application of BioNik (S-ABA) to seeds shifts the seedling emergence.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration No.: 73849-474
EPA Establishment No.: 33762-IA-001

Lot No.: 00335-04-01
04-7968/R3

List No.: 60235-04-01
04-7968/R3

870 Technology Way
Libertyville, IL 60048
1-847-968-4700

VARNISH
PANTONE 348
PANTONE 421
PANTONE 424
PANTONE 465
BLACK
YELLOW
MAGENTA
CYAN
Applicators and other handlers must wear:

- **Personal Protective Equipment (PPE)**
- *Do not use treated seed for animal or human consumption.* Do not allow treated seed to contaminate grain or other seed intended for animal or human consumption. Wash thoroughly with soap and water after handling and before eating. Caution: Wash PPE separately from other laundry. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions are available, wash thoroughly and change into clean clothing. **ENVIRONMENTAL HAZARDS**

- Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or residue.

To prevent potential consumption by animals, cover or collect treated seeds spilled during loading.

**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 State or Tribal agency responsible for pesticide regulation.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not use treated seed for animal or human consumption. Do not allow treated seed to contaminate grain or other seed intended for animal or human consumption.

**Personal Protective Equipment (PPE)**

Applicants and other handlers must wear:

- **Shoes plus socks.**
- **Long-sleeved shirt and long pants.**
- **Protective eyewear.**

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

**GENERAL DIRECTIONS**

Use only for treating seed. Use only as directed. Read the label thoroughly and make sure it is understood before making applications. BioNik™ delays seedling emergence of parent seed. Use only as directed. Read the label thoroughly and make sure it is understood before making applications. BioNik™ delays seedling emergence of parent seed.

**Application Instructions:**

- **BioNik**: contains the active ingredient S-Aba, a secondary Plant Growth Regulator found in poppies. S-Aba is a potent Plant Growth Regulator found in plants.

- Undesired effects can result from any deviations from the label directions for applying BioNik™:
  - **Thoroughly mix BioNik™ by shaking or agitation before use.**
  - **Apply BioNik™ to parent seed using commercial seed treatment equipment at a seed treatment facility.** Not for use on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications or at locations immediately before planting.

**COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS**

Compatibility and performance data for BioNik™ with other agricultural products is not available. Although BioNik™ is generally compatible with many other seed treatment formulations, if BioNik™ is to be mixed with other seed treatment products, first test on a small scale. Use caution in mixing any products as incompatibility might occur. Incompatibility is indicated by an inhomogeneous seed treatment mixture, an uneven seed coating, or poor adherence of the seed coating to the seed.

**APPLICATIONS, RATES, AND TIMINGS**

**GERMINATION DELAY FOR HYBRID SEED PRODUCTION**

The extent of delay resulting from BioNik™ is dependent on inbred or hybrid genetics. Conduct small seed scale evaluations of each inbred or hybrid to determine the dose required for the desired delay.

**CROP OBJECTIVE / BENEFIT APPLICATION INSTRUCTIONS**

A block of data is presented below.

**CROP**

**GENERAL**

**OBJECTIVE / BENEFIT**

**APPLICATION INSTRUCTIONS**

Seeds for production of hybrid seeds.

Delay seedling emergence of parent seed.

Apply BioNik™ directly to parent seed for delayed germination or synchronization of flowering of parent seed in production of hybrid seed.

**Delay of male corn parents for seed production**

BioNik™ (g product) per 100 lbs seed (cwt): examples using 1800 seeds/lb for inbred or hybrid seed.

- **Acetone** (g product) per 100 lbs seed (cwt): examples using 1800 seeds/lb for inbred or hybrid seed.

**Seeds for production of hybrid seeds**

Delay seedling emergence of parent seed.

Apply BioNik™ directly to parent seed for delayed germination or synchronization of flowering of parent seed in production of hybrid seed.

Delay of male corn parents for seed production:

**CROP**

**Corn**

**Delay of anthesis**

<table>
<thead>
<tr>
<th></th>
<th>90 GDD</th>
<th>100 GDD</th>
<th>150 GDD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BioNik</strong> (g product) per 100 lbs seed (cwt): example using 1800 seeds/lb for inbred seed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acetone</strong> (g a.i.) per kernel</td>
<td>0.300 mg</td>
<td>0.600 mg</td>
<td>0.600 mg</td>
</tr>
</tbody>
</table>
| **Remarks:** Note on units: 0.1 milligram (mg) a.i./kernel = 100 micrograms (μg) a.i./kernel. Application rate depends on genetic background. BioNik™ rate per 100 lbs seed should be adjusted for seed number per lb for each inbred. Significant stand loss may occur and % loss depends on genetic background.

**BioNik** (g product) per 100 lbs seed (cwt): example using 1800 seeds/lb for inbred seed.

<table>
<thead>
<tr>
<th></th>
<th>7.30 fl oz</th>
<th>14.61 fl oz</th>
<th>14.4 - 432 g</th>
<th>36 - 432 g</th>
</tr>
</thead>
</table>
| **Remarks:** Note on units: 0.1 milligram (mg) a.i./kernel = 100 micrograms (μg) a.i./kernel. Application rate depends on genetic background. BioNik™ rate per 100 lbs seed should be adjusted for seed number per lb for each inbred. Significant stand loss may occur and % loss depends on genetic background.

| **Remarks:** Note on units: 0.1 milligram (mg) a.i./kernel = 100 micrograms (μg) a.i./kernel. Application rate depends on genetic background. BioNik™ rate per 100 lbs seed should be adjusted for seed number per lb for each inbred. Significant stand loss may occur and % loss depends on genetic background.

| **Remarks:** Note on units: 0.1 milligram (mg) a.i./kernel = 100 micrograms (μg) a.i./kernel. Application rate depends on genetic background. BioNik™ rate per 100 lbs seed should be adjusted for seed number per lb for each inbred. Significant stand loss may occur and % loss depends on genetic background.
Delay of rice parents

CROP
Rice

Delay of anthesis
1 - 10 days

Active Ingredient (mg a.i.) per kernel
0.001 - 0.150 mg

BioNik™ (g product) per 100 lbs seed (cwt); example using 18,000 seeds/lb (25 mg/seed)
7.2 - 1080 g

BioNik™ (fl oz product) per 100 lbs seed (cwt); example using 18,000 seeds/lb (25 mg/seed)
0.24 - 36.52 fl oz

Remarks:
Note on units: 0.05 milligram (mg) a.i./kernel = 50 micrograms (μg) a.i./kernel. Application rate depends on delay desired and genetic background. BioNik™ rate per 100 lbs seed should be adjusted for seed number per lb for each inbred. Significant stand loss may occur at high rates for particular parent seed.

FACTORS AFFECTING RESPONSE TO BioNik™
S-ABA, the active ingredient in BioNik™, is a potent Plant Growth Regulator found in plants. S-ABA significantly delays emergence when applied to seeds.

In addition to proper application technique, environmental and cultural factors will affect a seed or seedling’s response to treatment with BioNik™. Do not use this product on old, weak, or damaged seed. Excessive stand loss could result from such use.

Different varieties or cultivars within a given plant species may require a higher or lower rate of BioNik™ to achieve the desired effects.

Determing Optimal Rates: Optimal BioNik™ rates will vary according to the desired emergence and flowering delay. Different varieties or cultivars of the same species may respond differently to BioNik™. Therefore, to determine response levels treat or test a small number of seeds before applying BioNik™ to a large number of seeds.

DO NOT exceed the maximum stated rate.

Environmental Factors:
Heavy irrigation/rain immediately after planting may reduce efficacy. Planting in a dry seedbed may extend germination delay. Therefore, plant in moist seedbed.

Low or high soil temperatures may impact the period of germination delay.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Keep container tightly closed when not in use. Store product in a cool place. Avoid extended storage conditions at temperatures above 25°C (77°F). Avoid exposure of product to light or sunlight.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after flow begins to stop. Fill container 1/4 full with water and recap. Shake for 10 seconds. Pour into application equipment or a mix tank or store rinsate for later re-use or disposal. Drain for 10 seconds after the flow begins to stop. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

WARRANTY AND DISCLAIMER STATEMENT
To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

© 2015

BioNik is a trademark of Valent BioSciences Corporation.