



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 24, 2022

Ms. Rachel L. Hardie  
Regulatory Consultant  
D-I-1-4, Division of 1,4 Group, Inc.  
c/o Technology Sciences Group Inc.  
1150 18<sup>th</sup> St. N.W.,  
Suite 100  
Washington, DC 20036

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Adding establishment number; updating company address; revising warranty statement; adding optional marketing text and optional Spanish translation Safety and Health information.  
Product Name: 1,4SEED®  
EPA Registration Number: 67727-3  
Application Date: 12/13/2021  
OPP Submission Number: 1079573  
OPP Case Number: 00337338

Dear Ms. Hardie:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section

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EPA Reg. No. 67727-3

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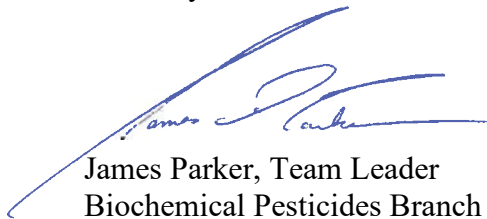
OPP Case No. 00337338

12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

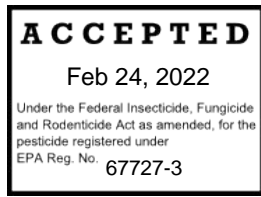
If you have any questions, please contact Nina Naimy via email at [naimy.nina@epa.gov](mailto:naimy.nina@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "James Parker", is written over a horizontal line.

James Parker, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure



# 1,4SEED®

(Alternate Brand Name: 1,4SIGHT)

**Aerosol Grade – (Seed Potato) (Root, Tuber and Bulb (Crop)) Dormancy Enhancer**

**Active Ingredient:**

1,4-Dimethylnaphthalene\* .....98.4%

**Other Ingredients** ..... 1.6%

**TOTAL** .....100.0%

\*Contains 8.3 pounds active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN WARNING

#### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals – WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Environmental Hazards:** This product is highly toxic to freshwater fish and aquatic invertebrates. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

<b>FIRST AID</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>EMERGENCY INFORMATION</b>	
For spill, leak, fire, exposure or accident call PERS 1-800-633-8253.	

(Follow the Directions for Use as labeled on the outer carton when applying this product.) (See inside for First Aid and Precautionary Statements.)

**Net Contents:** \_\_\_\_\_  
(Lot No./Batch No.: \_\_\_\_\_)

**EPA Reg. Number:** 67727-3  
**EPA Est. Number:** 67727-ID-001

**Manufactured for:**

D-1-1-4, Inc., a division of 1,4Group, Inc.  
2307 E. Commercial St., Ste A  
Meridian, ID 83642

(1,4SEED® is a registered trademark of the 1,4GROUP for chemicals for agriculture.)

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### NOTICE

- 1,4SEED® is used as an aerosol to enhance the dormancy of seed potatoes (and other root and tuber crops, bulb crops, and ornamental flowering bulbs) and reduce fungal pathogen growth prior to germination.
- Applicators and other handlers must wear: long-sleeved shirt, long pants, shoes, socks, protective eyewear (goggles or face shield), and chemical resistant (such as nitrile or butyl) gloves.
- For reentry into treated areas during application and prior to ventilation or settling of aerosol fog, workers must wear: coveralls over long-sleeved shirt, long pants, shoes plus socks, and chemical resistant (such as nitrile or butyl) gloves; face-sealing goggles, unless a full-face respirator is worn; and a respirator with an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
- 1,4SEED® must not be applied to potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs) in the field.
- 1,4SEED® may be applied anytime after the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs) are placed into the storage area.
- Do not allow vapors to come in contact with storage areas used for seed potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs) within 30 days of their planting.

### *(Optional text/section on CROPS)*

#### **CROPS**

1,4SEED® is effective on the following sprouting root and tuber crops:

Beet  
Carrot  
Cassava  
Dasheen (taro)  
Ginger  
Ginseng  
Horseradish  
Parsnip  
Potato  
Sweet potato  
Turnip  
Yam

1,4SEED® is effective on the following sprouting bulb crops:

Garlic  
Leek  
Onion  
Shallot

1,4SEED® is effective on the following sprouting ornamentals:

Flowering bulbs

### **FORCED AIR DISTRIBUTION METHOD**

1. Prepare aerosol generating equipment. The discharge from the vaporizer should be located to provide optimum distribution in the storage area. Take precautions to prevent the spray from coming into direct contact with the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs).
2. Running fans during the application may aid disbursement of vapors, but it is not required.
3. It is advantageous to keep the storage area closed as long as practical to allow for maximum absorption into the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs).

### **TREATMENT OF STORAGE AREAS THAT DO NOT HAVE RECIRCULATING AIR SYSTEMS**

These storage areas are more difficult to treat. Additional steps must be taken to treat these storage areas.

1. Prepare aerosol generating equipment. The discharge from the vaporizer should be located to provide optimum distribution in the storage area. Take precautions to prevent the spray from coming into direct contact with the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs).
2. Completely close off the area to be treated. This may include vent doors in the attic and walk doors around the perimeter. The large truck doors may need to be sealed to prevent excess leakage.
3. Begin the treatment by following the listed steps:
  - A. Start the aerosol generator.
  - B. Adjust the location of the vaporizer so all the storage area receives an equal amount of aerosol fog. It may be necessary to move the vaporizer during the application or make the application in multiple phases. For reentry into treated areas during application and prior to ventilation or settling of the aerosol fog, workers must wear: coveralls over long-sleeved shirt, long pants, shoes plus socks, and chemical resistant (such as nitrile or butyl) gloves; face-sealing goggles, unless a full-face respirator is worn; and a respirator with an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
4. Wait at least 12 hours before fresh air is introduced into the storage area, then return the storage area to "normal" operation.
5. It is advantageous to keep the storage area closed as long as practical to allow for maximum absorption into the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs).

### **APPLICATION TIMING AND RATES**

Application of 1,4SEED® can be made anytime after the potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs) are placed in the storage area.

1. Apply at rates of up to 1 pound of active ingredient per 50,000 lbs (500 cwt), which is equivalent to 20 ppm on a product to crop basis or 1 gallon per 4,000 cwt.
2. While potatoes (or other root and tuber crops, bulb crops, or ornamental flowering bulbs) may be retreated as necessary for effective control, do not exceed the maximum application of 80 ppm during the storage season.

### **STORAGE AND DISPOSAL**

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

#### **PESTICIDE STORAGE**

Keep container closed. This product temporarily inhibits germination of seed potatoes (and other root, tuber and bulb crops).

#### **PESTICIDE DISPOSAL**

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

#### **CONTAINER HANDLING**

Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. 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.

### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties, Limitations of Liability, and Notice before using this product. If the terms are not acceptable, return the unopened product container immediately.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties, Limitations of Liability, and Notice.

**CONDITIONS:** This product is intended to be used and applied by a licensed professional. The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of 1,4GROUP, Inc. To the extent consistent with applicable law, all such risks shall be assumed by the buyer or user.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 1,4GROUP, INC. MAKES NO WARRANTIES EXCEPT AS SPECIFICALLY STATED ON THE PRODUCT LABEL AND SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. 1,4GROUP, INC. DOES NOT WARRANT RESULTS. No agent or licensee of 1,4GROUP, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL 1,4GROUP, INC. BE LIABLE TO THE BUYER, USER, OR ANY OTHER THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGE (INCLUDING, WITHOUT LIMITATION, LOST PROFITS, LOST SAVINGS, OR LOST BUSINESS OPPORTUNITY) FROM THE USE OR HANDLING OF THIS PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 1,4GROUP, INC.'S LIABILITY IS LIMITED TO REPLACEMENT OF ANY PRODUCT, WITHIN THE CONTINENTAL UNITED STATES, THAT WAS NOT IN CONFORMANCE WITH THE PRODUCT LABEL AT THE TIME OF SHIPMENT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL 1,4GROUP, INC.'S LIABILITY FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, EXCEED THE PURCHASE PRICE PAID.

(Note to reviewer: Marketing text in brackets [ ] is optional text

**Optional Label Claims:**

*Application timing and rates optional conversion information:*

1 cwt. = 100 lbs = 2.5 cubic feet; 1 ton = 20 cwt.
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*Product benefits:*

- Biochemical delays sprouting, so smaller [buds] [sprouts] on [potatoes] [root and tuber crops] [bulb crops] [and] [ornamental flowering bulbs] [and other sprouting crops].
- Enhances the [potato's] [onion's] [tuber's] [bulb's] ability to heal cuts and bruises.
- Reduces respiration, resulting in less water loss.
- Reduces refrigeration and ventilation needs.
- Reduces pressure bruising.
- Firmer [potatoes] [onions] [bulbs] with improved visual appearance.
- 1,4-Dimethylnaphthalene (1,4DMN) shows fungistatic effects on [certain fungal] plant pathogens.
- [This product] [1,4SEED] is effective against [listed] [fungal] [plant pathogens]
- Helps [to] prevent internal sprouting.
- [inhibits] [or] [reduces] pathogen growth.
- Helps to reduce color formation due to storage bruising.
- Helps to reduce color formation of bruising due to mechanical handling
- Can enhance tuber suberization.
- Can extend shelf-life of treated potatoes.
- Slows the conversion of starches into sugars.
- Increase potatoes natural resistance to pathogens.
- Product has ability to break apical dominance of potato, resulting in more even tuber-set.
- Helps to maintain seed [potato] food reserves and seed vigor resulting in increased speed and rate of emergence.

**Additional Optional Text:**

- Peel back for instructions
- This page intentionally left blank
- 1 system [4] [for] all your needs
  - o 1 4SIGHT®
  - o 1 4SHIP®
  - o 1 4SEED®

- 1 4ZAP®
- Our clients enjoy a complete system of products, optimally designed to work together  
Included in the [1,4Group] [One Four Group] Product Portfolio: (Sprout Torch® - Organic Use) [PIN NIP® 98% CIPC] [Spud Guard® 2 EC]

**(OPTIONAL SAFETY AND HEALTH INFORMATION SPANISH TRANSLATIONS:**

**MANTENER FUERA DEL ALCANCE DE LOS NIÑOS  
ADVERTENCIA  
MEDIDAS DE PRECAUCIÓN**

**Peligros Para los Seres Humanos y los Animales Domésticos - Advertencia:** Provoca lesiones oculares significativas pero temporales. Nocivo si se ingiere o absorbe a través de la piel. No aplicar sobre los ojos ni la ropa. Use gafas protectoras (gafas o protector facial). Evite el contacto con la piel. Lávese bien con agua y jabón después de manipular el producto y antes de comer, beber, mascar chicle, usar tabaco o ir al baño. Quítese la ropa contaminada y lave la ropa antes de volver a utilizarla.

**Peligros Ambientales:** Este producto es altamente tóxico para peces de agua dulce e invertebrados acuáticos. No contamine el agua al limpiar el equipo ni al desechar las aguas residuales del lavado del equipo.

<b>Primeros Auxilios</b>	
Al momento de llamar el centro de toxicología o al médico o de buscar tratamiento, lleve el envase o la etiqueta del producto.	
<b>Si entra en contacto con los ojos:</b>	<ul style="list-style-type: none"> <li>• Mantenga los ojos abiertos y enjuague lenta y suavemente con agua entre 15 a 20 minutos.</li> <li>• Sáquese las lentes de contacto después de los primeros 5 minutos, si usa y luego continúe enjuagándose los ojos.</li> <li>• Llame a un centro de toxicología o un médico para recibir asesoramiento médico.</li> </ul>
<b>Si se ingiere:</b>	<ul style="list-style-type: none"> <li>• Llame a un centro de toxicología o un médico para recibir asesoramiento de tratamiento de inmediato.</li> <li>• Haga que la persona beba un sorbo de agua, si puede tragar.</li> <li>• No induzca el vómito, a menos que se lo indique el centro de toxicología o un médico.</li> <li>• No le dé nada por boca a una persona inconsciente.</li> </ul>
<b>Si entra en contacto con la piel o la ropa:</b>	<ul style="list-style-type: none"> <li>• Quítese la ropa contaminada.</li> <li>• Enjuague la piel inmediatamente con abundante agua entre 15 a 20 minutos.</li> <li>• Llame a un centro de toxicología o un médico para recibir asesoramiento médico.</li> </ul>
<b>Información de Emergencia</b>	
En caso de derrames, fugas, incendios, exposición o accidentes llame a PERS 1-800-633-8253.	



## INSTRUCCIONES DE USO

Es una violación de la ley federal usar este producto de una manera inconsistente con su etiquetado.

Fabricado para: Contenido neto XX galones  
D-I-1-4, a division of 1,4GROUP, Inc.  
2307 E. Commercial St., Ste A  
Meridian, ID 83642 USA

## ALMACENAMIENTO Y DESECHO

No contamine el agua, los alimentos o comederos con el almacenamiento o el desecho del producto.

### ALMACENAMIENTO DE PESTICIDAS

Mantenga el recipiente cerrado. Este producto inhibe temporalmente la germinación de las papas de siembra.

### DESECHO DE PESTICIDAS

Los residuos resultantes del uso de este producto se pueden eliminar in situ o en instalaciones para tratamiento de desechos.

### MANEJO DE LOS RECIPIENTES

Recipiente no recargable. No reutilice ni vuelva a llenar este recipiente. Enjuague tres veces (o su equivalente) inmediatamente después del vaciado. Enjuague tres veces de la siguiente manera: Vacíe el contenido residual en el equipo de aplicación o en un tanque de mezcla y, una vez que el flujo comience a gotear, drene durante 10 segundos. Llene el recipiente con 1/4 de agua y vuelva a taparlo. Agite durante 10 segundos. Vierta la sustancia de enjuague en el equipo de aplicación o en un tanque de mezcla o almacene la sustancia de enjuague para su posterior utilización o eliminación. Luego de que el flujo comience a gotear, drene durante 10 segundos. Repita este procedimiento dos veces más. Luego, ofrézcalo para reciclado, si estuviera esta opción disponible, o perforo y deseche en un vertedero sanitario; también puede eliminarlo por incineración. No lo incinere, a menos que así lo permitan las ordenanzas estatales y locales.

## AVISO

- 1,4SEED® se utiliza como aerosol para mejorar la latencia de las papas de siembra y reducir el crecimiento de los hongos patógenos antes de la germinación.
- Los aplicadores y otros trabajadores deben usar: camisa de manga larga, pantalones largos, zapatos, calcetines, gafas protectoras (gafas o protector facial) y guantes resistentes a productos químicos (de nitrilo o butilo).
- Para volver a ingresar a las áreas tratadas durante la aplicación y antes de la ventilación o sedimentación de la niebla del aerosol, los trabajadores deben usar: overoles completos de manga larga, pantalones largos, zapatos más calcetines y guantes resistentes a productos químicos (de nitrilo o butilo); gafas completamente cerradas, a menos que se use un respirador con máscara completa; y un respirador con un cartucho de extracción de vapor orgánico con un prefiltro aprobado para pesticidas (prefijo de número de aprobación MSHA/NIOSH TC-23C) o un recipiente aprobado para pesticidas (prefijo de número de homologación MSHA/NIOSH TC-14G), o un respirador aprobado por NIOSH con un cartucho o recipiente para vapor orgánico (OV) con cualquier prefiltro R, P o HE.
- 1,4SEED® no debe aplicarse en las papas en el campo.

- 1,4SEED® se puede aplicar en cualquier momento tras colocar las papas en el área de almacenamiento.
- No permita que los vapores entren en contacto con las áreas de almacenamiento utilizadas para almacenar las papas de siembra dentro de los 30 días posteriores a su plantación.

Espere al menos 12 horas para que el aire fresco acceda al área de almacenamiento y luego reestablezca el funcionamiento “normal” del área de almacenamiento).