



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 30, 2020

Kristen Shears
DuPont Crop Protection
Chestnut Run Plaza
974 Centre Road
Wilmington, DE 19805

Subject: Notification per PRN 98-10 – Minor label change and alternate brand name
Product Name: DuPont Lumisena
EPA Registration Number: 352-920
Application Date: 8/7/2019
Decision Number: 560211

Dear Ms. Shears:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped “Notification” and will be placed in our records.

The alternate brand name “Lumisena” has been added to the product record.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements 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 Agency 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.

If you have any questions, please contact Yasmin Bowers at 703 347-8634, or via email at bowers.yasmin@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis", enclosed in a hand-drawn oval.

Kable Bo Davis
Acting Senior Advisor
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

(Base Label)

GROUP

U15

FUNGICIDE

DuPont™ Lumisena™**FUNGICIDE SEED TREATMENT****[Alternate Brand Name: Lumisena™]**

A fungicide seed treatment product for early season protection against Oomycete pathogens in soybeans and sunflowers.

LUMISENA™ is a flowable suspension

<i>Active Ingredient</i>	<i>By Weight</i>
Oxathiapiprolin	18.7%
<i>Other Ingredients</i>	81.3%
TOTAL	100.0%

Contains 1.67 pounds of oxathiapiprolin per gallon of product.

KEEP OUT OF REACH OF CHILDREN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

For questions regarding emergency medical treatment, you may contact 1-800-441-3637.

PERSONAL PROTECTIVE EQUIPMENT (PPE)**Mixers, loaders, applicators, and other handlers must wear:**

- Long-sleeved shirt
- Long pants
- Shoes and socks

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing /PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. For terrestrial uses: 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 rinseate.

NOTIFICATION

352-920

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

11/30/2020

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep container closed when not in use. Always store pesticides in the original container only, away from food, pet food, feed, seed, fertilizers, and veterinary supplies. If a leaky container must be contained within another, mark the outer container to identify the contents. Storage areas must be locked and secure from vandalism, with precautionary signs posted. The storage area must be dry, well-lit, and well-ventilated. Keep pesticide storage areas clean. Clean up any spills promptly. Protect pesticide containers from extreme heat and cold. Store herbicides, insecticides and fungicides in separate areas within the storage unit. Place liquid formulations on lower shelves and dry formulations above. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies. If spill cleanup PPE is stored nearby, but outside the pesticide storage area, it will be accessible when needed.

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

CONTAINER HANDLING: Refer to the Net Contents section of this product's labeling for the applicable "Refillable Container" or "Non-refillable Container" designation.

Non-refillable Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Non-refillable container. Do not reuse or refill this container. Triple rinse container (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 1/4 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, for Plastic Containers, 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. For Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Non-refillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, 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. For Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Non-refillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers,

offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont™ LUMISENA™ containing Oxathiapiprolin only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. For Plastic Containers, 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. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

[\[Note to Reviewer: The referral statements below are optional. Please also note that this Note to Reviewer appearing within brackets will not appear on the final printed label.\]](#)

[Refer to accompanying labeling for additional precautions, complete Directions for Use, and Storage and Disposal.](#)

[See inside booklet for complete Directions for Use and Storage and Disposal.](#)

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-441-3637.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg No. 352-920

EPA Est. No. _____

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**Produced for
E. I. du Pont de Nemours and Company
Chestnut Run Plaza
974 Centre Road
Wilmington, DE 19805**

Nonrefillable Container

Net: _____

OR

Refillable Container

Net: _____

(Cover, shipping container)

GROUP **U15** FUNGICIDE**DuPont™ Lumisena™****FUNGICIDE SEED TREATMENT****[Alternate Brand Name: Lumisena™]**

A fungicide seed treatment product for early season protection against Oomycete pathogens in soybeans and sunflowers.

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Refer to inside of label booklet for additional precautionary information including Directions for Use.

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Produced for
E. I. du Pont de Nemours and Company
Chestnut Run Plaza
974 Centre Road
Wilmington, DE 19805

Nonrefillable Container

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OR

Refillable Container

Net: _____

(page 1 through end)

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STORAGE AND DISPOSAL

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procedure two more times. Then, for Plastic Containers, 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. For Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

DIRECTIONS FOR USE

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

DuPont™ LUMISENA™ fungicide seed treatment (referred to below as LUMISENA™) must be used only in accordance with instructions on this label, in separately issued labeling or exemptions under FIFRA (Supplemental labels, Special Local Needs Registrations, FIFRA Section 18), or as otherwise permitted by FIFRA. Always read the entire label including the Limitation of Warranty and Liability.

LUMISENA™ is a fungicide seed treatment for soybean and sunflower seed for use by a DuPont-authorized seed company or a commercial seed treatment facility. Do not use on agricultural establishments in hopper-box, planter box, slurry box or other seed treatment applications at time of planting.

Do not use treated seed for food or animal feed, mix with food or animal feed, or process for oil.

This product contains no colorant. An EPA-approved colorant must be added when this product is applied to seed. Seed must be conspicuously colored at the time of treatment.

When applied according to this label, LUMISENA™ will provide early season protection against selected Oomycete pathogens including *Phytophthora* causing seed rot, root and stem rot and/or damping off in soybeans and *Plasmopara halstedii* causing downy mildew in sunflowers. Use tank mixtures with other appropriate fungicides to control these diseases or to otherwise extend the control spectrum (see Tank Mixing). Consult your local DuPont company representative or agricultural advisor for guidance on predicted disease pressure based on historical data for these diseases in your area.

LUMISENA™ treated seed may be replanted immediately if an emergency replanting is required due to an early season crop failure.

Treating significantly damaged seed or seed that is low vigor or overall poor quality may result in reduced germination, seedling vigor and plant stand. Before treating an entire seed lot with the proposed seed treatment, treat a small portion of the seed lot and conduct subsequent germination tests. DuPont makes no guarantee regarding the germination of damaged or carry-over treated seed, since seed quality and storage conditions are beyond the control of DuPont.

PRODUCT INFORMATION

LUMISENA™ fungicide is a flowable suspension containing oxathiapiprolin and is recommended for use as a seed treatment product, for early season protection from selected Oomycete pathogens including *Phytophthora* causing seed rot, root and stem rot and/or damping off in soybeans and *Plasmopara halstedii* causing downy mildew in sunflowers.

LUMISENA™ has preventive, residual, curative, eradicated, and antispore activity against selective Oomycete pathogens listed in this label.

Mode-of-action

Oxathiapiprolin, the active ingredient in LUMISENA™, acts as an oxysterol binding protein (OSBP) modulator in fungal cells and protects against sensitive Oomycete diseases by inhibiting OSBP.

Cultivar/Varietal Seed Safety

Not all varieties, cultivars or hybrids of crops have been individually tested for seed safety. It is not possible to evaluate all applications of LUMISENA™ for seed safety on all varieties, cultivars, or hybrids of those crops, or under all environmental conditions and growing circumstances. To test for seed safety, apply the product in accordance with the label instructions to a small amount of target seed and confirm acceptable germination to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

Resistance

LUMISENA™ fungicide contains the active ingredient oxathiapiprolin, which is novel and currently assigned the code U15 based on the mode of action classification system of the Fungicide Resistance Action Committee (FRAC). Oxathiapiprolin inhibits the oxysterol-binding protein (OSBP).

A disease management program that includes rotation and/or mixing with fungicides that have a different mode of action is essential to reduce the risk of fungicide resistance development.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that LUMISENA™ contains the active ingredient oxathiapiprolin which is novel and is currently assigned the Code U15 by the Fungicide Resistance Action Committee (FRAC). Oxathiapiprolin inhibits the oxysterol-binding protein (OSBP). A disease management program that includes rotation and/or mixing with fungicides that have a different mode of action is essential to reduce the risk of fungicide resistance development. Any pathogen population may contain individuals naturally resistant to LUMISENA™ and other OSBP-inhibiting fungicide. The resistant individuals may dominate the pathogen population if these groups of fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

- GENERAL GUIDANCE: Seed treatment applications of oxathiapiprolin in mixture with a different mode of action fungicide active against the target oomycete disease are encouraged whenever feasible.
- No foliar or soil fungicide application of an OSBP-inhibiting fungicide should be made following a seed treatment application of oxathiapiprolin or other OSBP-inhibiting fungicides.
- For resistance management, do not make more than one seed treatment application of oxathiapiprolin per year on the same acreage, targeting the same pathogen, except in the case of crop failure.

To delay fungicide resistance:

- Where possible, rotate the use of LUMISENA™ with fungicides with a different FRAC group that control the same pathogen.
- Use tank mixtures with fungicides from a different FRAC group when such use is permitted.
- Fungicide use should be based on an IPM program that includes scouting, record keeping and considers cultural, biological and other chemical control practices.
- Monitor treated pathogen populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

APPLICATION INFORMATION

Mixing Procedures

LUMISENA™ is for use in commercial seed treaters only, operating standard, calibrated seed treatment equipment. Do not use this product on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications at or immediately before planting. Treatment equipment must be clean and free of previous pesticide deposits before applying LUMISENA™. Before transferring LUMISENA™ from its container, thoroughly mix the contents to ensure the product is homogenous. Add LUMISENA™ directly to the mixing tank. Mix thoroughly the recommended amount of LUMISENA™ with the required amount of water. If available on the application equipment, LUMISENA™ can be applied directly through dedicated application modules in place of a mixing tank.

Add an EPA approved colorant to treat the seeds per 40 CFR 153.155(b)(1) during the seed treatment process. Ensure that all treated seeds are dyed an unnatural color.

Mixing Tank and Equipment Cleanout

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all mixing equipment to reduce the risk of forming hardened deposits, which might become difficult to remove.

Drain mixing equipment. Thoroughly rinse mixing equipment and flush with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

Mixing Tank and Equipment Cleanout

LUMISENA™ may be applied as a water-based slurry with other registered seed treatment products including fungicides, insecticides, nematicides or micronutrients. Potential mixing partners should be tested for physical compatibility with LUMISENA™ including added colorants or polymers before mixing in a large tank for seed treatment. Follow the most restrictive labeling limitations and precautions of all products used in mixtures. Do not mix this product with any product that prohibits such mixing.

Mixing Tank and Equipment Cleanout

For protection against seed-borne and soil-borne *Phytophthora sojae*, that cause soybean seed rot, root and stem rot or damping off, apply 0.012 to 0.024 mg ai/seed following the specific instructions in the Soybean and Sunflower table below. Use the higher rate in areas with a history of high disease pressure, or where extended early-season protection is required and/or field conditions favor seed and soil-borne pathogens.

For protection against soil-borne *Plasmopara halstedii*, that cause sunflower downy mildew, apply 0.0094 to 0.0188 mg ai/seed following the specific instructions in the Soybean and Sunflower table below. Use the higher rate in areas with a history of high disease pressure, or where extended early-season protection is required and/or field conditions favor seed and soil-borne pathogens.

LUMISENA™ Use Rate for Soybeans and Sunflowers

Crop	Target diseases (pathogen)	Rate mg ai / seed	Rate lb a.i./ 100 lbs seed	Rate fl. oz/seed unit	Rate fl. oz/ 100 lbs seed	Specific Directions
Soybeans	Phytophthora seed, root and stem rot; damping off (<i>Phytophthora sojae</i>)	0.012 to 0.024	0.0074 to 0.0148	0.284 to 0.568 fl. oz/140,000 seeds (based on an average of 2,800 seeds per pound)	0.568 to 1.136	Use the higher rate in areas with a history of high disease pressure, or where extended early season protection is required and/or field conditions favor development of seed and soil-borne pathogens
Sunflower	Downy mildew (<i>Plasmopara halstedii</i>)	0.0094 to 0.0188	0.0135 to 0.0269	0.318 to 0.636 fl. oz /200,000 seeds (based on an average of 6,500 seeds per pound)	1.033 to 2.066	Use the higher rate in areas with a history of high disease pressure, or where extended early season protection is required and/or field conditions favor development of seed and soil-borne pathogens

CROP ROTATION

The following list of crops and crop groups may be planted immediately after harvest of crops grown from seed treated with LUMISENA™, or following the failure of a crop grown from seed treated with LUMISENA™: tuberous and corn vegetables (Subgroup 1C); bulb vegetables (Group 3-07); leafy greens (Subgroup 4A); brassica, head and stem (Subgroup 5A); peas, succulent shelled; peas, edible-podded; fruiting vegetables (Group 8-10); cucurbit vegetables (Group 9); strawberries; herbs and spices (Group 19); oilseed (Group 20); ginseng; and tobacco.

The following crops and crop groups may be planted immediately after harvest of crops grown from seed treated with LUMISENA™, or in the case of crop failure, 30 days after the planting of seed treated with LUMISENA™: cereals (Groups 15 and 16) and grass animal feeds (Group 17).

All other crops cannot be planted until 180 days after the planting of seed treated with LUMISENA™.

SEED STORAGE

Field and laboratory tests have demonstrated that an application of LUMISENA™ to soybeans or sunflowers will not negatively affect germination. Due to seed quality and seed storage conditions beyond the control of DuPont, no claims are made to guarantee the germination of carry-over seed.

COMMERCIAL SEED BAG LABELING

In accordance with the Federal Seed Act and the US Environmental Protection Agency recommendations, seed commercially treated with DuPont™ LUMISENA™ must include the following on its labeling:

- Treated seed. Do not use for food, feed or oil purposes.
- This seed has been treated with LUMISENA™ fungicide which contains oxathiapiprolin.
- Store away from food or feed.
- Dispose of all obsolete treated seed away from bodies of water and according to federal and state regulations.
- Do not allow children, pets, or livestock to have access to treated seed.
- Dispose of seed packaging in accordance with local requirements.
- Wear long pants, long-sleeved shirt, shoes, and socks when handling treated seed.

Crop Rotation

- The following list of crops and crop groups may be planted immediately after harvest of crops grown from seed treated with LUMISENA™, or following the failure of a crop grown from seed treated with LUMISENA™: tuberous and corm vegetables (Subgroup 1C); bulb vegetables (Group 3-07); leafy greens (Subgroup 4A); brassica, head and stem (Subgroup 5A); peas, succulent shelled; peas, edible-podded; fruiting vegetables (Group 8-10); cucurbit vegetables (Group 9); strawberries; herbs and spices (Group 19); oilseed (Group 20); ginseng; and tobacco.
- The following crops and crop groups may be planted immediately after harvest of crops grown from seed treated with LUMISENA™, or in the case of crop failure, 30 days after the planting of seed treated with LUMISENA™: cereals (Groups 15 and 16) and grass animal feeds (Group 17).
- All other crops cannot be planted until 180 days after the planting of seed treated with LUMISENA™.

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