

Proper Pesticide Use

Understanding and following label information



Pesticide Residues



Pesticide Tolerances



Why are Tolerances Important?



What is an illegal residue?

- Residue above the tolerance
- Pesticide has no tolerance



Pesticide Data Program

| Year | Chemical | Commodity | % Detects |
|------|--------------|-----------|-----------|
| 2009 | Chlorpyrifos | Cilantro | 37 |
| 2010 | Chlorpyrifos | Cilantro | 27 |
| 2009 | Diazinon | Cilantro | 13 |
| 2010 | Diazinon | Cilantro | 14.1 |

Tolerances
40 CFR Part 180
Subpart C
Section 342
Chlorpyrifos tolerances

Pesticide Labels

7 DIRECTIONS FOR USE CONTINUED

ALFALFA Alfalfa Weevil Larvae
Eggs and young larvae. For alfalfa and other legume crops. Apply the amount of *De Pesto* indicated on the chart, when feeding is noticed or when insects appear. *Alfalfa Weevil* - Adult - Apply 1.2 ounces per acre when insects appear. Larvae - Apply 2 ounces per acre prior to bloom. Observe the indicated number of days after application before cutting or grazing. Do not apply more than once per season. Apply only to fields started to cure against alfalfa.

| Days of Growth | Do Not Cut or Graze Within |
|----------------|----------------------------|
| 4 | 7 days |
| 1 | 14 days |
| 2 | 29 days |

RED CLOVER *Red Clover* - Apply 1.2 ounces per acre when insects appear. Larvae - Apply 2 ounces per acre prior to bloom. Observe the indicated number of days after application before cutting or grazing. Do not apply more than once per season. Apply only to fields started to cure against alfalfa.

MINIMUM GALLONAGE REQUIREMENT Ten gallons of finished spray per acre with ground equipment, two gallons per acre with aircraft.

FIELD CORN *Corn* - Apply 1.2 ounces of *De Pesto* per 13,000 square feet (1/4 acre) in 40 inch spacing. Apply, or plant, at a 2 inch band over the row or inject on each side of the row by mixing with water or use soil fertilizer. When *De Pesto* is used with liquid fertilizers, mix on the following day making sure that the mixture is physically complete. Precede 1 quart of *De Pesto* with 2 quarts of water. Add this mixture to the tank of fertilizer along with ratings from the spraying equipment. Maintain agitation in the tank after mixing and during application. Do not mix until ready to use.

SWEET CORN *Sweet Corn* - Apply 1.2 ounces of *De Pesto* per acre using ground or aerial equipment. Check susceptible fields weekly, beginning in early June and continuing through August. Make first application only after visible plants form and 5% or more of the plants are infested with young larvae feeding in or under the leaf sheath and which have not bored into the stalks. Repeat whenever field checks indicate the infestation exceeds 5%. Do not apply more than 12 days of harvest. Do not use on silage.

6 RESTRICTED USE PESTICIDE
FOR RETAIL SALE TO AND APPLICATION ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION

1 DE PESTO

INSECTICIDE EMULSIFIABLE CONCENTRATE

2 ACTIVE INGREDIENT: pestoff-tri-salicylic acid 45.0%
INERT INGREDIENTS: 55.0%
TOTAL: 100.0%

THIS PRODUCT CONTAINS 4.0 LBS OF PESTOFF PER GALLON

KEEP OUT OF REACH OF CHILDREN
DANGER - POISON

10 STATEMENT OF PRACTICAL TREATMENT

If SWALLOWED - Induce vomiting by giving a teaspoonful of salt in a glass of warm water. Repeat until vomit is clear. Call a physician immediately.

If INHALED - Remove to fresh air. Call a physician immediately.

If IN EYES - Flush eyes with plenty of water for at least 15 minutes. Call a physician immediately.

If ON SKIN - In case of contact, remove contaminated clothing and immediately wash with soap and water.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

3 MFG BY A Z CHEMICALS TOWN, STATE

4 EPA EST. NO. 00475

5 EPA REGISTRATION NO. 1357-42

9 PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (DANGER)

Profoundly toxic by ingestion. Do not breathe spray mist. Do not get in eyes. Avoid contact with skin. Wear a mask or respirator if a type listed by the Mining Enforcement Safety Administration and the National Institute for Occupational Safety & Health for *De Pesto* protection. For emergency assistance call 000-000-0000.

10 TO PHYSICIAN: *De Pesto* is a powerful cholinesterase inhibitor. Do not use compounds such as 2-PAM. Give Atropine 2mg. intravenously or subcutaneously. If at all, use one drop of homatropine.

11 ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Keep out of any body of water. Do not apply where run-off is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of waste. This product is toxic to bees and should not be applied when bees are actively visiting the area.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat or open flame.

DIRECTIONS FOR USE

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

12 RE-ENTRY STATEMENT

Do not enter area within 72 hours after application.

CATEGORY OF APPLICATOR

For use only by agricultural pest control applicators.

13 STORAGE AND DISPOSAL

STORAGE: Store in original container. Do not store near food, water or feed or other articles intended for consumption by humans or animals.

DISPOSAL: Clean by burning in a safe place.

OR

Contact Local, State or Regional Federal Authorities for local regulations on disposal.

NET CONTENTS, ONE GALLON

Application Rate

Strawberry

(Not for use in Mississippi)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Preplant Incorporation Application

Apply Lorsban Advanced in sufficient water to ensure uniform soil coverage and incorporate into the soil in the spring for protection of strawberries during the following year.

| Target Pest | Lorsban Advanced (quart/acre) |
|---------------------------|-------------------------------|
| garden symphylans grub | 2 |

Brassica (Cole) Leafy Vegetables¹, Radish, Rutabaga, and Turnip

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours (3 days for cauliflower) unless PPE required for early entry is worn.

¹Brassica (cole) leafy vegetables including broccoli, broccdi raab, Brussels sprout, cabbage, cauliflower, cavalo broccolo, Chinese broccdi, Chinese cabbage, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

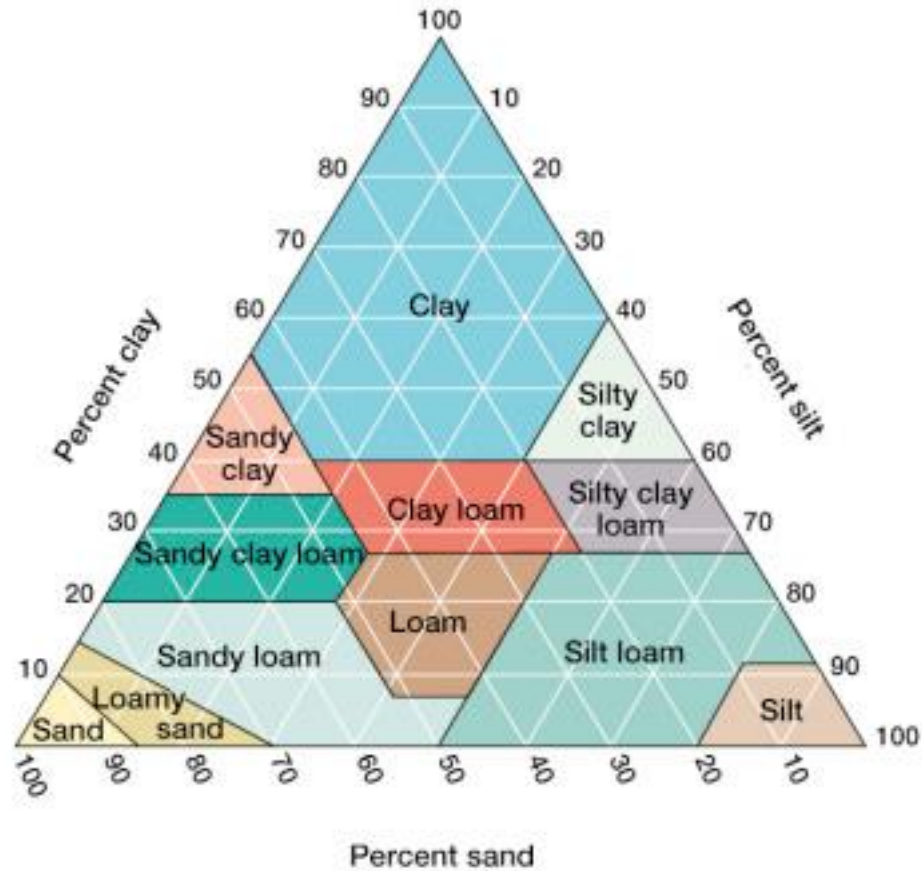
Specific Use Restriction: If a preplant incorporation application for direct seeded or transplanted crops is made, do not apply this product as an at-plant or post plant soil application. If an at-plant or post plant soil application is made, do not apply this product as a preplant incorporation application for direct seeded or transplanted crops.

Preplant Incorporation Application for Direct Seeded or Transplanted Crops

Apply Lorsban Advanced as a broadcast spray to the soil surface using power-operated ground spray equipment. Use a total spray volume of 10 gpa or more. On the day of treatment, incorporate Lorsban Advanced into the top 2 to 4 inches of soil using a disc, field cultivator, or equivalent equipment.

| Crop | Target Pests | Lorsban Advanced (pints/acre) |
|---|---|-------------------------------|
| cauliflower | billbugs | 4 |
| broccdi broccdi raab Brussels sprout cabbage cavalo broccolo Chinese broccoli Chinese cabbage collards kale kohlrabi mizuna mustard greens mustard spinach rape greens turnip | cutworms grubs root maggot symphylans wireworms | 4.5 |
| radish | | 5.5 |
| rutabaga | | 4.5 |

Soil Properties




Soil Properties

| Soil Texture | Rate per Acre | |
|--------------------------|--|--|
| | 1 to 2% Organic Matter This Product plus Sinbar | More than 2% Organic Matter This Product plus Sinbar |
| Sandy loam | 0.8 qt. + 1 lb. | 1.2 qts. + 1.5 lbs. |
| Loam, Silt loam, Silt | 1.2 qts. + 1.5 lbs. | 1.6 qts. + 2 lbs. |
| Clay loam, Clay | 1.6 qts. + 2 lbs. | 1.6 qts. + 2 lbs. |

Pre-Harvest Interval (PHI)



Label Exercise



GRAMOXONE
20SL

Non-selective contact herbicide


KEEP OUT OF REACH OF CHILDREN

Active Ingredient:
Paraquat ion 200 g/L
Solvent:
Water To 100% w/w

Registered with the Fertilizer and Pesticide Authority Pursuant to P.D. 1144
FPA Registration No.: 011-109-1257

1000 mL

syngenta

WARNING  **HARMFUL**

Brassica (Cole) Leafy Vegetables¹ and Radish, Rutabaga, and Turnip

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours (3 days for cauliflower) unless PPE required for entry is worn.

Yields: (cole) leafy vegetables including broccoli, broccoli rabe, Brussels sprout, cabbage, cauliflower, cavalo broccoli, Chinese broccoli, Chinese cabbage, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

Specific Use Restrictions: If a preplant incorporation application for direct seeded or transplanted crops is made, do not apply this product as an at-plant or post-plant soil application. If an at-plant or post-plant soil application is made, do not apply this product as a preplant incorporation application for direct seeded or transplanted crops.

Preplant Incorporation Application for Direct Seeded or Transplanted Crops:
Apply Lonban-4E as a broadcast spray to the soil surface using power-operated ground spray equipment. Use a total spray volume of 10 gpa or more. On the day of treatment, incorporate Lonban-4E into the top 2 to 4 inches of soil using a disc, field cultivator, or equivalent equipment.

| Crop | Target Pests | Lonban-4E (pints/acre) |
|---|---|------------------------|
| cauliflower | billbugs cutworms | 4 |
| broccoli broccoli rabe Brussels sprout cabbage cavalo broccoli Chinese broccoli Chinese cabbage collards kale kohlrabi mizuna mustard greens mustard spinach rape greens Turnip | grubs root maggot symphyla wireworms | 4.5 |
| radish | | 5.5 |
| rutabaga | | 4.5 |

Specific Use Precautions:
Insecticides, including Lonban-4E, may contribute to the stress of plants under certain environmental conditions. This stress may reduce plant stand or interfere with normal plant development. Herbicides used preplant incorporated may interact with insecticides and enhance this stress.

At-Plant or Post-Plant Soil Application:
Apply as indicated in Pest-Specific Use Directions. Use a higher rate in the rate range when there is increased pest pressure.

| Crop | Target Pests | Lonban-4E (fl oz/1000 ft of row) |
|--|-----------------|---------------------------------------|
| cauliflower | root maggot (1) | 1.6 – 2.4 |
| broccoli broccoli rabe Brussels sprout cabbage cavalo broccoli Chinese broccoli Chinese cabbage collard kale kohlrabi mizuna mustard greens mustard spinach rape greens turnip | | 1.6 – 2.75 |
| broccoli cabbage | root aphid (2) | 1.2 (2.4 for double row plantings) |
| radish | root maggot (3) | 1 |
| rutabaga | root maggot (1) | 1.6 – 3.2 |

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions:

- Root maggot:**
 - **Direct seeded crops (broccoli, broccoli rabe, Brussels sprout, cabbage, cauliflower, cavalo broccoli, Chinese broccoli, Chinese cabbage, collard, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, rutabaga, turnip):** Apply the specified dosage in a water-based spray as a 4-inch wide band over the row at planting time. Place band behind the planter shoe and in front of the press wheel to achieve shallow incorporation. Use a minimum of 40 gpa total spray volume.
 - **Transplanted crops (broccoli, broccoli rabe, Brussels sprout, cabbage, cauliflower, cavalo broccoli, Chinese broccoli, Chinese cabbage, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, turnip):** Apply Lonban-4E as a water-based spray directed to the base of the plants immediately after setting. Use a minimum of 40 gpa total spray. Do not add any additional adjuvants, surfactants or spreader stickers. Do not apply as a foliage application.
- Root aphid (broccoli, cabbage):** Apply Lonban-4E in water or with liquid fertilizer injected as a sidedress on each side of the row after plants are established. See Mixing Directions section for Mixing Instructions for Liquid Fertilizer. Avoid mechanical damage to crop roots. Use a minimum of 15 gpa of total spray volume.
- Root maggot (radish):** Apply the specified dosage as a water-based drench in the seed furrows with the seed at planting time. Use a minimum of 40 gpa of total drench.

Specific Use Restrictions for Preplant Incorporation and At-Plant or Post-Plant Soil Applications:

- **Soil applications (all labeled crops):**
 - **Preharvest Interval:** Do not apply within 30 days before harvest.
 - Do not foliarly apply any chlorpyrifos product labeled for foliar application (e.g., Lonban 50W) within 10 days of a soil application of Lonban-4E.
 - Do not aerially apply this product in Mississippi.
- **Cauliflower:** Do not apply more than 2 pints of Lonban-4E to cauliflower planted in 40-inch rows. Use proportional amounts for other row spacings, but do not exceed 4 pints of Lonban-4E per acre. The maximum single application rate for cauliflower is 1.2 oz of chlorpyrifos (2.4 fl oz of Lonban-4E) per 1000 ft of row.
- **Broccoli, broccoli rabe, Brussels sprout, cabbage, cavalo broccoli, Chinese broccoli, Chinese cabbage, collard, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, turnip:** Do not apply more than 2.6 pints of Lonban-4E per acre when planted in 40-inch rows. Do not apply more than 4.5 pints of Lonban-4E per acre to these crops when in 20-inch rows (or two rows per bed). Use proportional amounts for other row spacings, but do not exceed 4.5 pints of Lonban-4E per acre.
- **Radish:** Do not apply more than 5.5 pints of Lonban-4E per acre. The maximum single application rate for radish is 0.5 oz of chlorpyrifos (1 fl oz of Lonban-4E) per 1000 ft of row.
- **Rutabaga:** Do not apply more than 4.5 pints of Lonban-4E per acre. The maximum single application rate for rutabaga is 1.6 oz of chlorpyrifos (3.2 fl oz of Lonban-4E) per 1000 ft of row. Do not use rutabaga tops for food or feed purposes.

Foliar Application (Brassica (Cole) Leafy Vegetables Only)
Apply with conventional power-operated spray equipment in 20 to 150 gpa of water. For aerial applications, apply in a minimum of 5 gpa of water. Use a higher rate in the rate range when there is increased pest pressure. Consult your state agricultural experiment station, extension service specialist, or integrated pest control advisor for proper time to treat in your area.

| Target Pests | Lonban-4E (pint/acre) |
|--|-----------------------|
| armyworms cabbage aphid cutworms imported cabbage worm striped flea beetle (adult) | 1 – 2 |

- Specific Use Restrictions:**
- **Preharvest Interval:** Do not apply within 21 days before harvest.
 - Do not make more than three applications of products containing chlorpyrifos per crop.
 - Do not make a second application of Lonban-4E or other product containing chlorpyrifos within 10 days of the first application.
 - Do not aerially apply this product in Mississippi.

Questions?

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