

# Product Bulletin



Dow AgroSciences LLC

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## RESTRICTED USE PESTICIDE

Due to high acute inhalation toxicity and carcinogenicity. For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

## Telone<sup>®</sup> II

EPA Reg. No. 62719-32

plus

**K-PAM<sup>®</sup> HL**

EPA Reg. No. 5481-483

or

**Sectagon<sup>®</sup> 42**

EPA Reg. No. 61842-6

**Vapam<sup>®</sup> HL**

EPA Reg. No. 5481-468

or

**Sectagon-K54<sup>®</sup>**

EPA Reg. No. 61842-7

### Section 2(ee) Recommendation <sup>†</sup>

For Distribution and Use Only in the States of Colorado, Idaho, Nevada, Oregon, Utah, and Washington

**Simultaneous Application of Telone II plus K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL for Suppression of *Verticillium Dahliae* and Suppression of Root Knot, Lesion Nematodes and Stubby Root Nematode Vector of Corky Ringspot in Soils to be Planted to Potatoes, Onions and Carrots**

### ATTENTION

- <sup>†</sup> This recommendation is made as permitted under FIFRA Section 2(ee) and has not been submitted to or approved by the EPA.
- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
  - Read the labels affixed to container for Telone II, K-PAM HL, Sectagon-K54, Sectagon 42 and Vapam HL before applying. Carefully follow all precautionary statements and applicable use directions.
  - **Except as specified in this product bulletin, use of these products is subject to all use precautions and limitations imposed by the labels affixed to their containers.**

### Directions for Use

The following use directions provide information for a simultaneous ground application of Telone<sup>®</sup> II soil fumigant and K-PAM<sup>®</sup> HL or Sectagon-K54 or Sectagon<sup>®</sup> 42 or Vapam<sup>®</sup> HL soil fumigant. For best results, a fall application is recommended. Due to time constraints resulting from varying weather conditions, a spring application may result in delayed planting.

**Note:** When Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL are applied simultaneously, the most restrictive personal protective equipment, worker notification and reentry restrictions specified on the label for each product must be followed.

### Soil Conditions

Soil temperature must be between 40 and 90°F in the treated zone. Soil moisture in the top 6 inches should be at 60 to 80% available water capacity. Soil moisture at 9 inches should be moist as determined by the feel method to be a minimum of 50% available water capacity. If necessary, pre-irrigate about a week prior to treatment to adjust soil moisture to the desired levels.

### **Application Methods and Equipment**

Use a dual equipment setup to apply Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL during a single pass. Calibrate equipment for simultaneous application of each product. Because of shallower product placement and the need to disrupt chisel traces from application of Telone II, mount equipment for application of K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL behind that of Telone II.

Apply Telone II as a broadcast treatment at the minimum rate of 15 gallons per acre (44.3 fl oz/1000 ft of row/outlet based on 12 inch centers) using either chisel (shank), Nobel (sweep) or modified ParaTill application equipment. Chisel equipment must have ripper-type shanks. ParaTill equipment must be modified so that outlet spacing is evenly distributed under the tool bar. With chisel and ParaTill equipment, a shank spacing of 12 to 24 inches is recommended. Do not exceed a shank spacing of 24 inches. Outlet depth should be at least 18 inches below the final soil surface. Nobel plow outlet spacing should not exceed 12 inches and application should be made to a depth of at least 15 inches. Fumigant penetration may be limited if a plow pan exists below the depth of the Nobel blade. Do not use plow-sole application.

For soil injection, apply K-PAM HL or Sectagon-K54 as a broadcast treatment at a minimum rate of 24 gallons per acre or Sectagon 42 or Vapam HL as a broadcast treatment at a minimum rate of 30 gallons per acre using, either shanks, sweep blades or double-winged shanks. Single shanks should be spaced no more than 6 inches apart with either single injection outlets no more than 6 inches deep or dual injection outlets spaced at 6 and 12 inches deep. Single sweep blades should be spaced no more than 12 inches apart with sweeps 12 inches wide and a spray nozzle that will provide broadcast coverage from sweep tip to sweep tip. Double-winged shanks should be spaced no more than 12 inches apart with no more than 9 inches between adjacent wings and with spray nozzles that provide uniform coverage.

For surface incorporation, apply K-PAM HL or Sectagon-K54 at a minimum rate of 24 gallons per acre or Sectagon 42 or Vapam HL at a minimum rate of 30 gallons per acre as a broadcast application to the soil surface immediately in front of soil covering equipment such as rotary tillers, disks, etc., set to a minimum depth of 6 inches.

### **Sealing the Soil after Application**

Immediately after application, the soil must be sealed to prevent fumigant loss and ensure that an effective concentration of fumigant is maintained within the soil. Chisel traces resulting from the application of Telone II must be disrupted to a depth of at least 4 to 6 inches. This may be accomplished with the K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL applicator and/or with a disk or similar device.

As a final step to compact the soil surface and help maximize soil sealing, all above applications must be followed with a ring roller or cultipacker.

### **Soil Fumigation Interval**

Planting may take place only after the odors of Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL are no longer present within the zone of fumigation. Following application and sealing, leave the soil undisturbed for 7 to 10 days. The longer undisturbed interval may be necessary if the soil is or becomes cold or wet during this period. For spring applications, thoroughly aerate the soil, after the initial undisturbed interval, by shallow plowing and/or disking to allow the fumigant odors to dissipate. Allow 21 days prior to planting for K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL. In addition to waiting 21 days, place indicator plants (e.g., potted tomato seedlings) in various places in the treated field and cover the plants with a "hot cap," plastic sheeting, bucket, etc., to trap and confine any fumes present. Leave the plants undisturbed for a minimum of 24 hours then examine for injury before planting the crop. Do not plant the crop if injury to indicator plants is observed. If noxious fumes are noticeable at planting, rework the soil.

### **Special Considerations and Precautions:**

- Use of this simultaneous application program of reduced rates of Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL does not guarantee pest-free crops at harvest.
- Use of Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL according to these use directions will suppress root knot, lesion, and stubby root nematode populations present within the

fumigated zone at the time of fumigation. The fumigated zone can vary depending upon a number of factors such as fumigant rate, application methods used, depth of fumigant application, soil moisture, soil type, soil temperature, and soil tilth (including soil compaction and soil porosity). The simultaneous combination of reduced rates of Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL will not control or prevent reinfestation subsequent to the treatments. Subsequent pest populations may infest the fumigated zone from irrigation water, equipment, potato seed or other sources of contamination, or may invade the fumigated zone from surrounding untreated soil such as from beneath the fumigated zone or from unfumigated pockets within the fumigated zone.

- In fields with a history of severe Columbia root knot nematode problems, the maximum federal label rate of 20 gallons of Telone II per acre is recommended in simultaneous combination with K-PAM HL or Sectagon-K54 at a minimum rate of 30 gallons per acre or Sectagon 42 or Vapam HL at a minimum rate of 37.5 gallons per acre, per these label directions.
- With fall applications, a cover crop such as wheat or grass may be planted following the undisturbed soil interval associated with this application to reduce the potential for overwinter soil erosion.
- Refer to the product labels affixed to the containers for Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL for further recommendations and precautions for optimum fumigant performance. Within the range of recommended soil conditions, product performance can be expected to improve as the soil conditions move towards optimum. Use of this simultaneous application program of Telone II and K-PAM HL or Sectagon-K54 or Sectagon 42 or Vapam HL under soil conditions outside the recommended range of soil conditions can be expected to yield less than satisfactory performance.

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R018-031  
Issued: 06/17/15  
Replaces R018-021