

Product Bulletin



Dow AgroSciences LLC

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RESTRICTED USE PESTICIDE

Due to acute toxicity and carcinogenicity. For retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Telone[®] C-17
EPA Reg. No. 62719-12

plus

K-PAM[®] HL
EPA Reg. No. 5481-483

OR

Sectagon[®] 42
EPA Reg. No. 61842-6

OR

Vapam[®] HL
EPA Reg. No. 5481-468

2(ee) Recommendation[†]

For Distribution and Use Only in the States of Oregon and Washington.

Simultaneous Application of Telone C-17 and K-PAM HL or Sectagon 42 or Vapam HL for Suppression of Plant Parasitic Nematodes, *Verticillium dahliae* and Certain Other Soil Pests of Caneberries (Subgroup 13A)¹, Strawberry and Nursery Crops

ATTENTION

[†] 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 label affixed to container for Telone C-17, K-PAM HL, 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

¹Caneberries (subgroup 13A) including blackberry, loganberry, red and black raspberry and cultivars and/or hybrids of these.

The following use directions provide information for a **simultaneous application program** of Telone[®] C-17 soil fungicide and nematicide and K-PAM[®] HL or Sectagon[®] 42 or Vapam[®] HL soil fumigant. For best results, apply as a fall application. Due to time constraints resulting from varying weather conditions, a spring application may result in delayed planting.

Note: When Telone C-17 and K-PAM HL 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% of field 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 C-17 and K-PAM HL 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 C-17, mount equipment for application of K-PAM or Sectagon 42 or Vapam HL behind that of Telone C-17.

Apply Telone C-17 at the minimum rate of 20 to 25 gallons broadcast equivalent per acre 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, use a shank spacing of 12 to 24 inches. 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 at a minimum rate of 24 gallons broadcast equivalent per acre or Sectagon 42 or Vapam HL at a minimum rate of 30 gallons broadcast equivalent per acre using either shanks, sweep blades or double winged shanks. Space single shanks 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. Space single sweep blades 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. Space double-winged shanks 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 at a minimum rate of 24 gallons broadcast equivalent per acre or Sectagon 42 or Vapam HL at a minimum rate of 30 gallons broadcast equivalent per acre 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, seal the soil to prevent fumigant loss and ensure that an effective concentration of fumigant is maintained within the soil. Disrupt chisel traces resulting from the application of Telone C-17 to a depth of at least 4 to 6 inches. This may be accomplished with the K-PAM HL 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, follow all above applications with a ring roller or cultipacker.

Soil Fumigation Interval

Planting may take place only after Telone C-17, K-PAM 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 in fine-textured soil types and/or 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 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 C-17 and K-PAM HL or Sectagon 42 or Vapam HL does not guarantee pest-free growing conditions.
- Use rates higher than the minimum if one or any combination of the following conditions apply: high pest populations in pre-treatment samples; applying to fine-textured soils; planting of deep-rooted trees or shrubs; or if the crop will remain in production for more than a year.
- Directions in this product bulletin are not intended for use on certified nursery stock.
- Use of Telone C-17 and K-PAM HL or Sectagon 42 or Vapam HL according to these use directions will suppress root knot and lesion 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 C-17 and K-PAM HL 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 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.
- If the application occurs in the fall and the crop is not planned until spring, a cover crop, such as wheat or grass, can be planted following the undisturbed soil interval associated with the application of K-PAM HL or Sectagon 42 or Vapam HL to reduce the potential for overwinter soil erosion.
- Refer to the product labels affixed to the containers for Telone C-17 and K-PAM HL or Sectagon 42 or Vapam HL for further directions and precautions for optimum fumigant performance. Use of this simultaneous application program of Telone C-17 and K-PAM HL or Sectagon 42 or Vapam HL under conditions outside the specified range of soil conditions can be expected to yield less than satisfactory performance.

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Sectagon® is a trademark of TKI, Inc.

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