TELONE[®]**TECHNOLOGY DIGEST**

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Corn treated with Telone® II soil fumigants can increase yields, decrease nematodes and improve quality.

Reduce Nematode Counts in Corn with Applications of Telone[®] II Soil Fumigant

Recent corn trials conducted in Seminole and Burke counties in Georgia showed drastically decreased nematode counts when treated with Telone[®] II soil fumigant. Both lowered nematode counts and higher yields were found when Telone II was applied.

In the trial conducted in Seminole County, few root-knot nematodes were found in fields treated with Telone II across three sampling dates. That compares favorably to fields treated with Counter insecticide-nematicide and Cruiser[®] seed-applied insecticide. (See Chart 1.)

"There's no question Telone II brings a level of protection to a corn crop that's beyond what any competitors can bring," says Dr. Bob Kemerait, Extension specialist for the University of Georgia. "In production systems where there's significant nematode damage, nothing performs like Telone II."

Treating with Telone[®] II soil fumigant also may allow corn to more efficiently consume nutrients and irrigation.



"By protecting a corn crop with a product like Telone II, it's more likely to get better utilization of fertilizers and irrigation," Kemerait says. "One may not be able to fertilize or irrigate less, but every bit of fertilizer and irrigation will be better utilized when the roots are protected by Telone II."

Sustaining Yields in High-value Crop Production



High-value vegetable crops like tomatoes, peppers, cucurbits and strawberries require a high-value option for nematode control. Vegetable producers need a product that will decrease the impact of

nematodes, thus increasing the return on their sizable investment.

The amount of crop loss can best be determined by the population density of nematodes in the soil at planting. The more nematodes present prior to planting, the higher risk there is for extensive crop loss. Any amount of nematodes can potentially result in at least minor crop loss, but a high presence of nematodes could potentially lead to complete crop loss.

Telone[®] soil fumigants offer producers unmatched nematode control that results in higher yields, better quality vegetables and consistently strong results. Those three benefits wouldn't



Strawberries treated with Telone® II soil fumigant (left) help reduce nematode infestation. Untreated strawberries (right) exhibit stunted growth due to sting nematode infestation.

be possible without protecting the roots of vegetable plants. Telone moves through the soil profile in a fashion that produces a nearly nematode-free zone that allows crops to thrive.

By controlling nematode populations, growers also are managing disease issues. Nematodes act as vectors for damaging diseases like fusarium wilt and pythium root rot, allowing these diseases to wreak havoc on a crop's marketability. Managing nematodes will help reduce the disease susceptibility of plants. Growers should still use chloropicrin to effectively control the disease complex in the soil.

Telone soil fumigants offer growers a portfolio of products with multiple options to help retain yield and manage profit-sapping nematodes. Each product within the portfolio offers different benefits, but the one constant is superior control of nematodes.

- **Telone II soil fumigant** is a preplant soil fumigant that is injected into the soil for control of all major nematode species, including root-knot, sting and lesion.
- **Telone EC soil fumigant** is an emulsifiable version of Telone II that can be mixed with and applied through drip irrigation lines.
- Telone[®] C-35 soil fungicide and nematicide is a true multipurpose product that offers excellent nematode control and provides a foundation for disease management.
- InLine[®] soil fungicide and nematicide offers superior nematode control and disease management for use in drip irrigation systems.

The application of Telone soil fumigants should be a part of a multiprong approach to disease and nematode management. Other commonly used practices to combat nematodes include crop rotation, resistant varieties and fallowing.

New REDs Improve Safety Guidelines

On Dec. 1, 2010, updated Reregistration Eligibility Decisions (REDs) should be implemented in Fumigant Management Plans (FMPs) for all products containing chloropicrin, including Telone[®] C-17 soil fungicide and nematicide, Telone C-35 soil fungicide and nematicide and InLine[®] soil fungicide and nematicide. The new REDs place a heightened focus on worker protection, public notification and fumigation management.

"Telone C-17, Telone C-35 and InLine are still very viable and usable products," says Elisha Buchanan, portfolio market leader for Telone. "There will be numerous resources available to vegetable producers that will help make this a seamless transition. As long as producers are utilizing the resources provided to them, compliance will be a much easier task."

Visit www.agrian.com for an online training tool that will ease the transition to the new guidelines. For more information on fumigation plans, visit www.epa.gov/oppsrrd1/reregistration/soil_fumigants.

Site-specific Application as Easy as 1-2-3-4

Site-specific application may seem like a daunting task at first. But a few simple steps later, and it will prove to be as easy as 1-2-3-4. Outlined below are the four steps needed to have your field up and ready for site-specific application of Telone® II soil fumigant.

1. Utilize Veris EC technologies. Veris machines appear to be small carts, but possess the ability to do big things. While being pulled through the field, a Veris EC system measures the apparent soil electrical conductivity (EC), determining the EC level, and thus the soil texture variability, in any given spot in the field.

Sensors on the machine measure EC levels 0 to 36 inches deep into the soil, noting the texture of the field as the cart is dragged through the field. Clay soils generate higher EC levels while sandier soils produce lower EC levels.

2. Break field into zones. Once the EC data is collected with the Veris machine, the field is broken into zones based on EC levels. The quantity of zones vary based on the field, but should range from lower to higher levels.

"By breaking the field into zones, you can combine similar types of soils into one zone so they can receive similar





Utilizing site-specific applications of Telone® II soil fumigant in cotton, corn and soybean production can lead to a significant yield increase.

levels of treatment," says Chip Giles, Telone specialist for Dow AgroSciences.

3. Take nematode samples. It's important to take nematode samples to confirm the presence of nematodes based on the information gathered from the Veris machine. Particular attention should be paid to lighter-textured soils, which are prone to root-knot nematodes.

Prior to taking soil samples, contact your county Extension agent for



The photo on the left shows the soil electrical conductivity of a field measured by a Veris machine. The zones shift from sandy soils (light red) to heavier soils (dark red). The photo on the right shows where Telone® II soil fumigant will be applied in the same field. Areas in red are low EC zones and will receive treatment. Areas in green are high EC zones and will not receive treatment.

information regarding available sampling tools, shipment bags and the proper procedures for submitting samples.

4. Create treatment maps. GPS coordinates are used to build treatment maps in the field based on the EC levels in the soil and nematode numbers collected by soil sampling. The treatment maps provide growers with a more accurate method to managing their fields. They know exactly where and how much Telone needs to be applied in the field.

Giles recommends tweaking the system the second year, but says "90 plus percent of the map is still going to be effective the next year."

Visit www.dowagro.com/soil/ application/site for more information on site-specific application.



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"Cruiser is a registered trademark of Syngenta Crop Protection Inc. Counter, InLine and Telone are federally Restricted Use Pesticides. In Florida, refer to the 24(c) Telone product specimen label for restrictions in certain counties. Telone is labeled under FIFRA 24(c) for nematode suppression in cotton and as an at-plant application only in the state of Georgia. Telone is not registered for sale or use in all states. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your state. Always read and follow label directions.
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For more information about Telone[®] soil fumigants, contact me at the phone number and e-mail address below, or visit our website at www.Telone.com.



[Rep_Name] Dow AgroSciences Telone Specialist [Rep_Phone] [Rep_Email]

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HIGHER QUALITY AND YIELDS

In the aforementioned trial, eight-row plots replicated four times were planted March 24, 2010, with one application of Telone II. The plots treated with Telone II yielded 212.3 bushels per acre, outyielding both competitors.

Telone[®] II soil fumigant routinely offers corn growers higher yields and higher-quality production. It also results in more uniform growth across the crop and yields consistent, predictable results.

"Corn treated with Telone II produces several visual benefits," Kemerait says. "These include better early season vigor, a darker green color, taller corn and earlier reproductive growth stages." The driving force behind the trials was the realization that plant-parasitic nematodes are a legitimate problem in corn production in the Southeast. Kemerait says growers need more information on nematodes so they can better manage the problem going forward.

"Nematodes are causing more damage to corn crops than growers truly realize and that's causing them to lose a lot of money," Kemerait says. "Growers need a product like Telone II to protect their crop from nematodes. Treating with Telone II can result in an increase of 25 bushels per acre or more over untreated fields."

Visit www.Telone.com for more information on improving yields through well-timed applications of Telone® II soil fumigant.