



TetraCURB™
ORGANIC



MITICIDE-INSECTICIDE + REPELLENT

The zero-day PHI biopesticide
for all organic crops



CROP TECHNOLOGIES

CROP PROTECTION



TetraCURB™ Organic is an OMRI-Listed® contact miticide-insecticide and repellent for commercial organic farmers that provides effective control of small, soft-bodied insects and mite pests for use in a wide range of specialty crops with a zero-day pre-harvest interval (PHI). TetraCURB Organic is an emulsifiable concentrate formulated with a unique blend of food-grade horticultural oils in high concentration (>50%) as active ingredients to provide fast-acting knockdown of the pest population and help manage pest pressure throughout the cropping season. TetraCURB Organic is an indispensable tool for organic growers who seek a sustainable organically certified crop protection agent to produce the highest quality fruits and vegetables for fresh market and beyond.

As a leader in the ingredient manufacturing industry for human and animal health and nutrition, Kemin has identified and cultivated plants, especially rosemary, that naturally produce molecules with high phytochemical actives and functional benefits. Kemin Crop Technologies discovered new applications from existing products for the horticulture market. By being one of the most vertically integrated suppliers of rosemary-based ingredients, Kemin ensures that every batch of product is consistent, and free from contaminants, so customers can expect consistent efficacy every time they purchase Kemin products. Furthermore, Kemin follows rigorous quality control (QC) testing. Our raw materials are reviewed for quality parameters, ensuring that all products that leave our facilities meet our QC criteria and that the active ingredients are present and have efficacy. That's why TetraCURB Organic provides proven mitigation of mites and small, soft-bodied insect populations with consistent performance.



*The primary ingredient is the
Kemin proprietary rosemary oil*



FEATURES AND BENEFITS

- REI = 0-hour, for the safety of workers
- PHI = 0-day, may be applied to crops at any time up to and including the day of harvest
- Broad-spectrum control of mites and common small, soft-bodied insects
- Target nymph and adult stages
- Quick knockdown
- Labeled for use on all plants and food crops
- MRL exempt
- No phytotoxicity observed
- No limitation on the number of applications per cropping season
- Minimal PPE

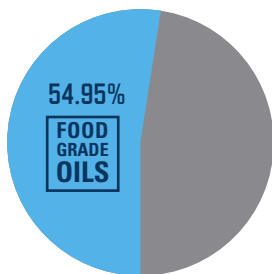
FORMULATION

Emulsifiable concentrate

ACTIVE INGREDIENTS

Rosemary Oil 50%
 Clove Oil 3%
 Peppermint Oil..... 1.95%

Other ingredients 45.05%



TetraCURB™ Organic is composed of more than fifty percent of food-grade horticultural oils.

KEY TARGET PESTS CONTROLLED

- Mites, such as two-spotted spider mites.
- Small, soft-bodied insects, such as aphids, thrips, and whiteflies.

PACKAGING SIZES



1 Gallon (case of 4)



2.5 Gallons (case of 2)

Larger packaging sizes are available upon request. Contact us for more information.

SITES FOR USE

For commercial use on a broad range of high value and specialty crops, including nonfood and food crops, indoor and outdoor production systems.

RESIDUE

TetraCURB Organic is exempt from food tolerance requirements (no Maximum Residue Limits, MRLs); the amount of pesticide residue expected to remain on food products as the result of a TetraCURB Organic application when used according to label directions is minimal.



MODES OF ACTION

TetraCURB™ Organic is a contact miticide-insecticide and repellent that controls small, soft-bodied insects and mites, nymphs and adults. The product can provide an effective control and rapid knockdown of the pest population thanks to thorough spray coverage and multiple modes of actions:

Repel	The rosemary oil is well-known to have a substantial repellent property. Due to its volatility, any mites or small, soft-bodied insects that are not in contact with TetraCURB Organic will be alarmed by the vapor exposure and rapidly mobilize to leave the treated plants via an avoidance behavior. TetraCURB Organic protects the crop from pest population establishment.
Suffocate	The high concentration of botanical oils in the blend provides the ability to suffocate the pests by blocking air from entering the pest spiracles, hence preventing them from breathing.
Paralyze	The key components of the botanical oil blend have activity as octopamine receptor agonists and acetylcholinesterase inhibitors, which are known to be effective neural control modulators in pest nervous systems and are capable of overstimulating and disrupting the nervous system, leading to pest paralysis.



DIRECTIONS FOR USE

APPLICATION RATES

- Preventative to low infestation: Lower rate at 32 fl. oz. /100 gallons of water per acre
- Moderate to heavy infestation: Higher rate 64 - 256 fl. oz. /100 gallons of water per acre. Apply in shorter spray intervals to maintain the desired level of control.

No restriction and limitation in the product dosage per acre, per crop growing cycle per season.

APPLICATION TIMING

- Apply when pest population first appears and before the economic threshold is reached.
- Apply in early morning or late afternoon when the temperature is below 90°F.
- Make sequential application at 5-7 days after the first application.

No restriction or limitation in the number of applications per crop growing cycle per year and in the number of consecutive applications before rotating to a chemical with different modes of action.

MIXING INSTRUCTIONS

TetraCURB™ Organic is a liquid emulsifiable concentrate and must be diluted with water before using. Shake well before using. Use dilution immediately. Do not store diluted solution.

Before mixing and applying TetraCURB Organic, thoroughly clean the tank and spray equipment, spray boom and all nozzles. For best results,

1. Fill half of a clean tank with sufficient clean water and initiate tank agitation systems.
2. Add the appropriate dosage of TetraCURB Organic and organic approved adjuvant to tank under constant agitation.
3. Fill the tank with the remaining amount of needed water
4. Mix to obtain a homogenous mixture. Maintain agitation until solution is used.

If combining other products along with TetraCURB Organic in the tank such as pesticides or adjuvants, always follow the respective label direction. Maintain agitation.

ADJUVANT

To maximize uniformity of coverage and performance under certain conditions, we recommend using an approved spray adjuvant. The addition of specific adjuvants may cause phytotoxicity, therefore always check compatibility of any adjuvant used with this product before use. Follow the directions for use on each adjuvant product label for rates of use and use restrictions.

APPLICATION DIRECTIONS

Use TetraCURB Organic as a foliar spray. Apply the mixture thoroughly using enough spray solution to achieve complete coverage, covering the top and bottom of leaf surfaces until runoff.

Do not apply this product through any type of irrigation or chemigation system.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

When mixing, applying, or handling product, wear required appropriate PPE, including but not limited to safety glasses, long sleeved shirt, pants, protective footwear, and chemical-resistant gloves.

SPRAY EQUIPMENT

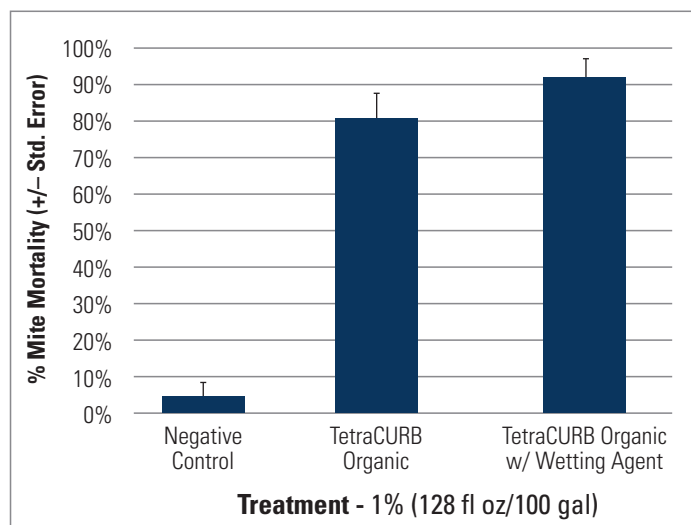
Apply TetraCURB Organic using standard spray equipment such as, but not limited to, high volume sprayers, booms, and hydraulic air assist equipment.

COMPATIBILITY OF SPRAY MIXTURE (TANK MIXES)

Limited compatibility testing has been conducted for TetraCURB Organic with other commonly used chemistries. As such, tank mixing or use of TetraCURB Organic with any other product shall be the exclusive risk and responsibility of the user. Always check the physical compatibility by performing a compatibility test when you plan to mix TetraCURB Organic with other products. Test the mixture on a small scale before making large-scale applications. Consult specific product labels for additional information.

TETRACURB™ ORGANIC EFFICACY ON MITES AND SMALL, SOFT BODIED INSECTS

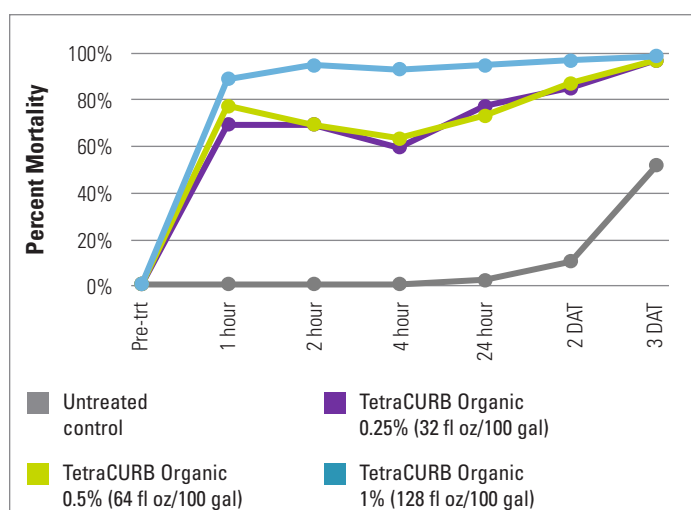
Two-spotted Spider Mite, adult Bioassay



+80% MORTALITY
WITHOUT WETTING AGENT

+90% MORTALITY
WITH WETTING AGENT

Western Flower Thrip, adult Bioassay SD-19-21459

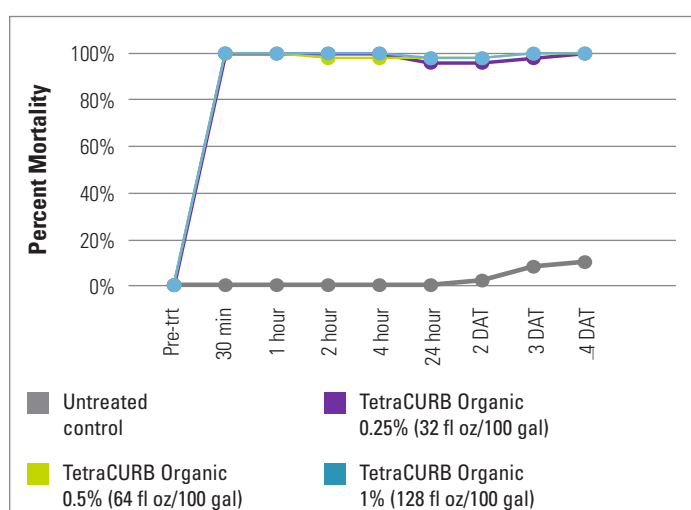


+96% CONTROL
WITH 1% AFTER 24 HOURS

+98% CONTROL
WITH 0.25% AFTER 3 DAYS

DAT: Day After Treatment

Silverleaf Whitefly, adult Bioassay SD-19-21459



100% CONTROL
AFTER 30 MINUTES

DAT: Day After Treatment

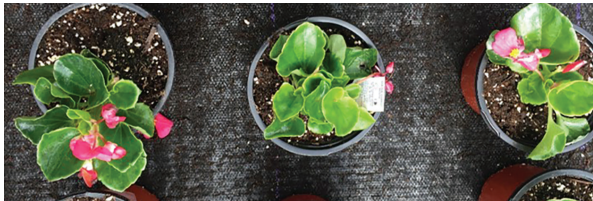
CROP SAFETY (PHYTOTOXICITY)

Due to the ever-changing varieties of plants, testing on all plants and crop varieties is not feasible. To ensure that TetraCURB™ Organic is compatible with the array of cultivars under your specific conditions, we recommend testing the product on a small scale and observe for phytotoxicity before making large-scale applications. Do not apply to stressed plants or crops; or when the temperature is 90° F or above.

2% TetraCURB Organic on begonias



Before



After

2% TetraCURB Organic on strawberries



Before



After

CONCLUSION

Excellent spreading for low phytotoxicity and higher efficacy. No phytotoxicity was observed on any of the plants tested.

PREMIUM TECHNICAL SERVICE

Beyond serving as a responsible ingredient manufacturer, Kemin has a team of technical service managers and research development experts who are incredibly knowledgeable and assist as needed for support on trials, direction for use, and the most efficient application rates in an integrated pest management program.

Our team of technical experts quickly guides growers with best practices and insights to ensure they are receiving the maximum value from our products, and ultimately, a successful profitable horticulture operation.

CROPTech@KEMIN.COM | WWW.KEMIN.COM/TETRACURB-ORGANIC



FIFRA 25(b) Exempt pesticide: This product has not been registered by the United States Environmental Protection Agency. Kemin Industries, Inc. represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Intended for commercial use. Always read and follow the entire label direction before use. Use strictly in accordance with precautionary statements and direction. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and IPM recommendations for the specific site and pest problems in your area. TetraCURB Organic is not registered, or authorized for sale in all states. Consult your Kemin representative or your state regulatory representative for approval of this use in your state, specific applications and labeling.

Shutterstock images: 1258208479, 568727965, 143717236, 1006050892

For non-emergency Kemin product inquiries, please call Customer Service at 1-800-752-2864 between the hours of 7 a.m. - 4:30 p.m. Central Standard Time. Monday - Friday.

© Kemin Industries, Inc. and its group of companies 2019 all rights reserved. ® ™ Trademarks of Kemin Industries, Inc., USA

CROPTech@KEMIN.COM | WWW.KEMIN.COM/TETRACURB-ORGANIC



KEMIN CROP TECHNOLOGIES

