

A TRUSTY TOOL IN THE FIGHT AGAINST COLORADO POTATO BEETLE



Torac can be used as a rotational chemistry within commonly used insect control programs

By Joe Kertzman, managing editor, *Badger Common'Tater*

The challenge of discovering new active ingredients to control difficult pests like Colorado potato beetle is something Alex Truszkowski of Nichino America, Inc. says crop protection companies invest much time and resources toward accomplishing.

In 2018, Torac® Insecticide from Nichino America was granted a label expansion by the U.S. Environmental Protection Agency (EPA) to allow use on potatoes in states east of the Mississippi River.

Torac provides fast broad-spectrum control of potato psyllid, Colorado potato beetle, aphids, leafhoppers

and thrips.

The active ingredient, tolfenpyrad, works by blocking cellular respiration and is effective on eggs, nymphs and adults.

For effective resistance management, Torac should be used in rotation with insecticides of different modes of action.

The University of Wisconsin-Madison along with Heartland Farms and Pest Pros, a division of Allied Cooperative, helped evaluate and optimize the efficacy and timing of Torac for controlling Colorado potato beetle on commercial farm acres.

“When Torac was finally labeled in Wisconsin three years ago, we were hopeful it would become another tool in the toolbox,” says Matt Selenske, division manager for Allied Cooperative’s Pest Pros division.

ROTATION FOR PRESERVATION

“We recommend rotating it once for first-generation potato beetle control in order to preserve the insecticides that we have been relying on heavily for some time now,” Selenske adds.

A foliar contact insecticide, Torac can be used as a rotational chemistry with most of the commonly used insect control programs.

Use rate is 21 fluid ounces per acre with a minimum spray volume of 20

Above: Chipping potatoes are windrowed at Heartland Farms using a Spudnik 6160 pulled by a John Deere tractor. Wes Meddaugh, farm manager for Heartland Farms, says his team started experimenting with Torac, in 2019, for control of Colorado potato beetle.



When Torac is applied tank mixed with PBO (Piperonyl Butoxide), it provides good control of Colorado potato beetle for a healthy crop.

gallons of water per acre by ground, or five gallons of water/acre by air. Maximum dosage is 42 ounces/acre per crop cycle.

It is applied with an adjuvant and spreader to optimize uniformity of coverage and performance, with a maximum of two applications per crop cycle and at least 14 days between applications.

"For best results, 21 ounces of Torac should be applied in late June or early July to control first-generation Colorado potato beetles," Truszkowski says.

"The addition of 5-6 ounces of exponent PBO [Piperonyl Butoxide]



Above: Shown here sitting in the back of his pickup truck, Alex Truszkowski, strategic account manager for Nichino America, Inc., says Torac provides fast broad-spectrum control of potato psyllid, Colorado potato beetle, aphids, leafhoppers and thrips.

with Torac has been proven to provide an additive effect to maximize control of Colorado potato beetles," he remarks.

Wes Meddaugh, farm manager for Heartland Farms in Hancock, Wisconsin, says his team started experimenting with Torac in 2019.

"Early recommendations were to tank mix with an acidifier and a non-ionic surfactant," he relates. "Our results were mixed, and some were poor."

CROPS AND CONTROL

"Alex [Truszkowski] and I went and looked at one of Russ Groves' trials at the University of Wisconsin Hancock Agricultural Research Station,"

Meddaugh continues, "where he had used it with a PBO, and the crops and control looked better than what we had seen with our results."

"We applied Torac tank mixed with PBO and it looked pretty effective," Meddaugh concludes.

Selenske concurs. "After some mixed results, the addition of PBO and an acidifying surfactant seemed to really help the efficacy, especially by air," he says. "Application at the high rate works best."

"We have more success using Torac in a first-generation scenario, and next year we will try using it before

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applying Spinosad insecticides to try to take more advantage of its adult control properties,” Selenske states.

He adds that Pest Pros has heard of very few mixing problems, and Torac’s efficacy does not seem affected by mixing with most common fungicides.

“It definitely works better through the ground rig where you can run more water volume,” remarks Meddaugh, who says Heartland Farms has also applied it via plane.

“Colorado potato beetle is a problem in the Central Sands and is only getting worse,” he stresses.

LIMITED CHEMISTRIES

“As our at-plant insecticide treatments lose efficacy and our

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Above: Alex Truszkowski of Nichino America, Inc. (right) credits Matt Selenske (left) of Allied Cooperative’s Pest Pros division and Wes Meddaugh (center), farm manager for Heartland Farms, as early adopters who incorporated Torac into their Colorado potato beetle spray programs.

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Colorado potato beetle emergence window continues to lengthen, we are having to spray more,” Meddaugh relates. “Also, we are limited to the amount of different chemistries we can use to effectively control Colorado potato beetle.”

Exirel and Minecto Pro (IRAC Group 28) were the latest insect control products prior to Torac (IRAC Group 21A) to be introduced to the market for Colorado potato beetle control.

“Torac does represent a new insecticide mode of action, which certainly adds value to our insecticide rotation management programs,” says Dr. Russell L. Groves, UW-Madison Department of Entomology.

“Although it is not a new chemistry, it is a relatively new option for producers in the Midwest and eastern United States with recent label changes authorized by the



Nichino America was a Tuesday lunch sponsor at the 2020 Grower Education Conference & Industry Show in Stevens Point, Wisconsin. Michael Mosher of the Wisconsin Department of Agriculture, Trade and Consumer Protection addresses the lunch crowd.

U.S. EPA,” he qualifies.

Torac has been evaluated in each of the last three seasons at the Hancock Agricultural Research Station, and Groves says it performs well when targeting early larval stages of the first generation of Colorado potato

beetle in early-to-mid June.

“We also see value at this time of year in terms of providing good control of the potato leaf hopper,” Groves relates.

Meddaugh says, where Heartland Farms placed Torac for first-generation Colorado potato beetle, his team is finding that it has decent potato leafhopper control as well.

“If you’re in an area with Colorado potato beetle pressure, I would recommend trying Torac,” he says. “With so few tools for Colorado potato beetle control, it will bring in a new chemistry that is effective and also helps preserve the longevity of the chemistries we do have.” **BC^T**

The advertisement for BTU Ventilation features a large, stylized yellow sun in the upper left corner. The background is a light blue gradient with faint binary code (0s and 1s) scattered throughout. The company logo "BTU Ventilation" is prominently displayed in the center, with "BTU" in large blue letters and "Ventilation" in a smaller, black, sans-serif font. Below the logo, the text "The experts in ventilation and refrigeration, helping you create and maintain the perfect environment in your storages." is written in a black, sans-serif font. Further down, the headline "We Are the Industry Leaders" is written in a large, bold, blue font. Below this headline, the text "By Developing and Utilizing Equipment and Controls like these:" is written in a smaller, black, sans-serif font. The advertisement includes three images of equipment: a "Variable Speed Rack & Pinion" unit, an "E-Cooler" unit, and a "Revolutionary Refrigeration Control System" unit. Each image is accompanied by a caption. The "Variable Speed Rack & Pinion" unit is shown with a "Fresh Air Door Controls" label. The "E-Cooler" unit is shown with a "With Controllable Zoned Chambers, Allowing Superior Water Distribution" label. The "Revolutionary Refrigeration Control System" unit is shown with a "Employing Frequency Drives in the control of Compressors and Condensing Fan Motors" label. At the bottom of the advertisement, the contact information is listed: "PH: 218-346-3357 • Toll Free: 888-884-8070" and "47418 US Hwy 10 Perham, MN 56573 • www.btuvent.com".

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– Dr. Russell L. Groves