RUTGERS
New Jersey Agricultural
Experiment Station

Cooperative Extension
Rutgers Agricultural Research & Extension Center
121 Northville Rd.
Bridgeton, NJ 08302

njaes.rutgers.edu/extension
polk@aesop.rutgers.edu
856-455-3100
Fax: 856-455-3133

March 8, 2018

Areta Wowk, Ph.D., Research Scientist
NJDEP / C&E / Pesticide Evaluation & Monitoring
PO BOX 420 MC 380-01B 380 Scotch Rd. (Front. Bldg.)
Trenton, NJ 08625-0420

Ms. Tawanda Maignan, Team Leader
Emergency Response Team
U.S. EPA Office of Pesticide Programs (7504P)
Document Processing Desk (EMEX)
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

RE: Regional FIFRA Section 18 Emergency Exemption Re-Certification for Bifenthrin Use on Pome Fruit and Stone Fruit

Dear Dr. Wowk:

This letter requests and endorses the Section 18 labeling for bifenthrin use against brown marmorated stink bug (BMSB) in tree fruit in New Jersey. New Jersey is participating in the regional request being coordinated by Bryan Butler at the University of Maryland. The regional request has already been submitted to EPA. I realize that bifenthrin is undergoing a review for section 3 labeling in apples and stone fruit that is pending for 2019, and that this will likely be the last year for a section 18 request for use in those crops. Bifenthrin is the most effective insecticide we have to manage brown marmorated stink bug. With this letter, I am requesting section 18 labeling status for: 2 UPI formulations of bifenthrin – Bifenture DF and Bifenture EC, and one FMC formulation – Brigade WSB. The first anticipated use for this material will be late May of this growing season.

New Jersey was one of the first states where BMSB was found in 1999 (first found in PA in 1996). During 2010 the insect rapidly increased to levels that caused significant economic damage in stone fruit (mostly peach and nectarine in NJ), and pome fruit (mostly apples in NJ). Sampling completed by Rutgers University found that most growers experienced economic damage, with many having sustained over 54% crop damage. Some growers had as high as 90+% damage on nectarine and apple plantings.

While growers became aware of the insect problem early in the season, virtually all insecticide programs that were used were ineffective for BMSB control. Much of the damage that occurred came late in the season, or shortly before picking, well inside the PHI intervals of most commonly used insecticides. It is conservatively estimated that NJ tree fruit losses approached $10 to $12 million during 2010.

During 2011 through 2016 NJ also had significant economic damage to both stone fruit and pome fruit crops. During 2017, untreated peach orchards sustained over 50% damage. Over the last 3 years, the value of NJ peach and apple production averaged over $62 million. BMSB populations caused 50% losses in unsprayed orchards, and averaged 10% in late season commercial orchards. A 10% loss in apples means a $3.6 million loss to the NJ apple industry.

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

New Jersey counties where applications may occur include Hunterdon, Warren, Morris, Sussex, Burlington, Middlesex, Mercer, Monmouth, Atlantic, Camden, Cumberland, Gloucester, Salem, Cape May, Bergen, Somerset, and Ocean Counties. The total apple and peach acreage likely to be treated includes: Peach – 5,500 acres valued at $28.4 million in 2016, Apple – 2,000 acres valued at $36.35 million in 2016. NJ is the 4th leading state in peach production and ranks 17th in apple production.

The following is a list of endangered species listed in New Jersey by the New Jersey Department of Environmental Protection, Division of Fish and Wildlife.

Endangered Species in NJ
From the NJ Division of Fish and Wildlife, NJDEP
http://www.state.nj.us/dep/fgw/tandespp.htm

H AMENDMENTS: Endangered Species List, Nongame Species List

Endangered Species are those whose prospects for survival in New Jersey are in immediate danger because of a loss or change in habitat, over-exploitation, predation, competition, disease, disturbance or contamination. Assistance is needed to prevent future extinction in New Jersey.

Threatened Species are those who may become endangered if conditions surrounding them begin to or continue to deteriorate.

There are other classifications for wildlife as well, including Stable, Species of Special Concern Special Concern and Undetermined.

Species names in the below tables link to PDF documents containing identification, habitat and status and conservation information. Additionally, in 2003 twelve species were highlighted as part of the celebration of the 30th anniversary of the NJ Endangered Species Conservation Act. See the "2003 Species of the Month" page for more information.

BIRDS			
Endangered		**Threatened**	
Bittern, American BR	*Botaurus lentiginosos* BR	Bobolink BR	*Dolichonyx oryzivorus* BR
Eagle, bald BR	*Haliaeetus leucocephalus* BR	Eagle, bald NB	*Haliaeetus leucocephalus* NB
Falcon, peregrine	*Falco peregrinus*	Hawk, Cooper's	*Accipiter cooperii*
Goshawk, northern BR	*Accipiter gentilis* BR	Hawk, red-shouldered NB	*Buteo lineatus* NB
Grebe, pied-billed	*Podilymbus podiceps*	Night-heron, black-crowned BR	*Nycticorax nycticorax* BR
Harrier, northern BR	*Circus cyaneus* BR	Night-heron, yellow-crowned	*Nyctanassa violaceus*
Hawk, red-shouldered BR	*Buteo lineatus* BR	Knot, red BR	*Calidris canutus* BR
Owl, short-eared BR	*Asio flammeus* BR	Osprey BR	*Pandion haliaetus* BR
Plover, piping**	*Charadrius melodus***	Owl, barred	*Strix varia*
Sandpiper, upland	*Batramia longicauda*	Owl, long-eared	*Asio otus*
Shrike, loggerhead	*Lanius ludovicianus*	Rail, black	*Laterallus jamaicensis*
Skimmer, black BR	*Rynchops niger* BR	Skimmer, black NB	*Rynchops niger* NB
Sparrow, Henslow's	*Ammodramus henslowii*	Sparrow, grasshopper BR	*Ammodramus savannarum* BR

Sparrow, vesper BR	*Pooecetes gramineus* BR	Sparrow, Savannah BR	*Passerculus sandwichensis* BR
Tern, least	*Sterna antillarum*	Sparrow, vesper NB	*Pooecetes gramineus* NB
Tern, roseate**	*Sterna dougallii***	Woodpecker, red-headed	*Melanerpes erythrocephalus*
Wren, sedge	*Cistothorus platensis*		
**Federally endangered or threatened			
BR - Breeding population only; NB - non-breeding population only			

REPTILES			
Endangered		**Threatened**	
Rattlesnake, timber	*Crotalus h. horridus*	Snake, northern pine	*Pituophis m. melanoleucus*
Snake, corn	*Elaphe g. guttata*	Turtle, Atlantic green**	*Chelonia mydas***
Snake, queen	*Regina septemvittata*	Turtle, wood	*Clemmys insculpta*
Turtle, bog**	*Clemmys muhlenbergii***		
Atlantic hawksbill**	*Eretmochelys imbricata***		
Atlantic leatherback**	*Dermochelys coriacea***		
Atlantic loggerhead**	*Caretta caretta***		
Atlantic Ridley**	*Lepidochelys kempi***		
**Federally endangered or threatened			

AMPHIBIANS			
Endangered		**Threatened**	
Salamander, blue-spotted	*Ambystoma laterale*	Salamander, eastern mud	*Pseudotriton montanus*
Salamander, eastern tiger	*Ambystoma tigrinum*	Salamander, long-tailed	*Eurycea longicauda*
Treefrog, southern gray	*Hyla chrysocelis*	Treefrog, pine barrens	*Hyla andersonii*

INVERTEBRATES			
Endangered		**Threatened**	
Beetle, American burying**	*Nicrophorus mericanus***	Elfin, frosted (butterfly)	*Callophrys irus*
Beetle, northeastern beach tiger**	*Cincindela d. dorsalis***	Floater, triangle (mussel)	*Alasmidonta undulata*
Copper, bronze	*Lycaena hyllus*	Fritillary, silver-bordered (butterfly)	*Bolaria selene myrina*
Floater, brook (mussel)	*Alasmidonta varicosa*	Lampmussel, eastern (mussel)	*Lampsilis radiata*
Floater, green (mussel)	*Lasmigona subviridis*	Lampmussel, yellow (mussel)	*Lampsilis cariosa*
Satyr, Mitchell's (butterfly)**	*Neonympha m. mitchellii***	Mucket, tidewater (mussel)	*Leptodea ochracea*
Skipper, arogos (butterfly)	*Atrytone arogos arogos*	Pondmussel, eastern (mussel)	*Ligumia nasuta*
Skipper, Appalachian grizzled (butterfly)	*Pyrgus wyandot*	White, checkered (butterfly)	*Pontia protodice*
Wedgemussel, dwarf**	*Alasmidonta heterodon***		
**Federally endangered or threatened			

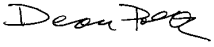
MAMMALS	
Endangered	
Bat, Indiana**	*Myotis sodalis***
Bobcat	*Lynx rufus*
Whale, black right**	*Balaena glacialis***
Whale, blue**	*Balaenoptera musculus***
Whale, fin**	*Balaenoptera physalus***
Whale, humpback**	*Megaptera novaeangliae***
Whale, sei**	*Balaenoptera borealis***
Whale,sperm**	*Physeter macrocephalus***
Woodrat, Allegheny	*Neotoma floridana magister*
**Federally Endangered	

FISH	
Endangered	
Sturgeon, shortnose**	*Acipenser brevirostrum***
**Federally Endangered	

Effect of bifenthrin on endangered species:

The use of bifenthrin is not likely to have any significant negative effects on the above organisms since previous EPA studies have found few negative effects. Searches for the effects of Bifenthrin on endangered species in New Jersey (www.epa.gov/endangered-species/bulletins-live-two-view-bulletins), show no limitations or effects on endangered species beyond adherence to normal label requirements. Therefore, none of the above listed endangered species are likely to be impacted by the use of bifenthrin in NJ.

Sincerely,



Dean Polk
Professor and Statewide Fruit IPM Agent