

Michigan Hemp Pesticide List (Updated 9-20-24)

IMPORTANT: The following is provided as guidance for use of pesticides on hemp in Michigan. Reference to any pesticide product does not indicate acceptance or approval of those products by the Michigan Department of Agriculture and Rural Development (MDARD) as safe or effective in controlling pests in the production of hemp.

Changes from previous list:

- Additions
 - Angry Johns Leaf Wash, 25(b)
 - Clonex Rooting Gel, EPA Reg. No. 79664-1Ninja Goldfish Plant Wash Concentrate, 25(b)
 - Languard M52 GR, EPA Reg. No. 64137-31
 - Lalstop G46 WG, EPA Reg. No. 64137-13

- Products evaluated, but not approved. Reason for denial in parenthesis.
 - Bacilirid Biological Fungicide, EPA Reg. No. 71840-8-89635 (Product label language not adequate for use on hemp.)

To have a pesticide evaluated for inclusion on the Michigan Hemp Pesticide List, complete an [evaluation request form](#) and email the completed form with a copy of the product label to MDARD-Pesticide@michigan.gov. Review the [policy summary](#) on cannabis pesticide product evaluation for more information on the evaluation process of pesticide products for inclusion on the Michigan Hemp Pesticide List.

- All pesticides must be used according to the product label instructions. The label is the law, so ensure that you understand label requirements before using a pesticide.

| Product Name | EPA Reg. No. | Active Ingredient | Company Name | Product Type |
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| Agree WG Biological Insecticide | 70051-47 | Bacillus thuringiensis subsp. aizawai strain GC-91 | Certis USA, LLC | Insecticide |
| Amyprotec 42 / Bexfond | 69553-9 | Bacillus amyloliquefaciens subsp. plantarum strain FZB42 | Andermatt Biocontrol | Fungicide, Bactericide |
| Angry Johns Leaf Wash | 25(b) | Geranium Oil, Rosemary Oil, Clove Oil, Thyme Oil | Zen Products | Insecticide / Fungicide / Miticide |
| Arcus | 84846-5 | Complex Polymeric Polyhydroxy Acids | FBSciences, Inc. | Plant Regulator / Biostimulant |
| Asperello T34 Biocontrol | 87301-1 | Trichoderma asperellum strain T34 | Biobest USA Inc. | Fungicide |
| Atrevia 3.0% SL | 91234-305 | Azadirachtin | Atticus LLC | Insecticide, Nematicide, Miticide |
| Aza-Direct Biological Insecticide | 71908-1 | Azadirachtin | Gowan Company | Insecticide |
| Azaguard Botanical Insecticide / Nematicide | 70299-17 | Azadirachtin | Biosafe Systems, LLC | Insecticide, Nematicide |
| Azamax Botanical Insecticide / Miticide / Nematicide 1 | 91865-4 | Azadirachtin | Parry America Inc. | Insecticide, Nematicide, Miticide |
| Bioceres EC | 89600-4 | Beauveria bassiana strain ANT-03 | Anatis Bioprotection Inc. | Insecticide |
| Bioceres WP | 89600-2 | Beauveria bassiana strain ANT-03 | Anatis Bioprotection Inc. | Insecticide |
| Bio-Forge Premier | 57538-71 | Cytokinin (as kinetin) | Stoller Enterprises, Inc. | Plant Growth Regulator |
| BioProtec Plus | 89046-12 | Bacillus thuringiensis subspecies kurstaki, strain EVB-113-19 | AEF Global Inc. | Insecticide |
| Blue Cal RX | 48222-15 | Copper sulfate pentahydrate, Calcium salts of phosphorous acid, & Phosphorous acid | Agro-K Corporation | Fungicide |
| Botanigard 22 WP / Mycotrol WPO | 82074-2 | Beauveria bassiana strain GHA | Certis USA, LLC | Insecticide |
| Botrystop WP/ BioWorks BW165E WP | 68539-17 | Ulocladium oudemansii | Bioworks, Inc. | Fungicide |
| Carbon Power Plant Growth Regulator (Discontinuance) | 84846-2F | Complex Polymeric Polyhydroxy Acids | FBSciences, Inc. | Plant Growth Regulator |
| Carb-O-Nator | 70051-117 | Potassium Bicarbonate | Certis USA, LLC | Fungicide |
| Clonex Rooting Gel | 79664-1 | Indole-3-Butyric Acid | Growth Technology LTD | Rooting Hormone |
| Crymax | 70051-86 | Bacillus thuringiensis subsp. kurstaki strain EG7841 | Certis USA, LLC | Insecticide |

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| Debug Turbo | 70310-5 | Azadirachtin and Neem Oil | Agro Logistic Systems | Insecticide, Miticide, Fungicide, Nematicide, Repellent |
| Deliver Biological Insecticide | 70051-69 | Bacillus thuringiensis subsp. kurstaki strain SA-12 | Certis USA, LLC | Insecticide |
| Dipel DF / Dipel Pro DF | 73049-39 | Bacillus thuringiensis subsp. kurstaki strain ABTS-351 | Valent Biosciences LLC | Insecticide |
| Double Nickel 55 Biofungicide | 70051-108 | Bacillus amyloliquefaciens strain D747 | Certis USA, LLC | Fungicide |
| Double Nickel LC Biofungicide | 70051-107 | Bacillus amyloliquefaciens strain D747 | Certis USA, LLC | Fungicide |
| Dyna-Start 3P Soybean / Consensus | 34704-1055 | Indole-3-butric acid, Salicylic acid, Chitosan | Loveland Products | Plant Regulator / Biostimulant |
| Ecoworks EC | 89152-4 | Cold pressed neem oil | Ecostadt Technologies, LLC | Insecticide, Miticide, Fungicide, Nematicide |
| Ferroxx AQ Slug & Snail Bait | 67702-49 | Iron Phosphate | W. Neudorff GMBH KG | Molluscicide |
| Ferroxx Slug & Snail Bait / Corry's Slug & Snail Killer | 67702-33 | Sodium Ferrix EDTA | W. Neudorff GMBH KG | Molluscicide |
| Gemstar LC Insecticidal Virus | 70051-45 | Polyhedral occlusion bodies of the nuclear polyhedrosis virus of Helicoverpa zea (corn earworm) | Certis USA, LLC | Insecticide |
| General Hydroponics Defguard Biofungicide / Bactericide (1) | 91865-3 | Bacillus amyloliquefaciens strain D747 | General Hydroponics | Fungicide, Bactericide |
| General Hydroponics Exile Insecticide / Fungicide / Miticide | 91865-2 | Potassium Salts of Fatty Acids | General Hydroponics | Insecticide, Fungicide, Miticide |
| General Hydroponics Prevasyn Insect Repellent / Insecticide (2) | 91865-1 | Soybean Oil, Garlic Oil, and Resin, Oleo-, capsicum | General Hydroponics | Insecticide, Repellent |
| Grandevo CG / Grandevo WDG | 84059-27 | Chromobacterium subtsugae strain PRAA4-1 cells and spent fermentation media | Marone Bio Innovations | Insecticide |
| Guarda | 92144-2 | Oil of thyme | Biosafe Systems, LLC | Fungicide, Bactericide |
| Helicovex / Hearken | 69553-2 | Helicoverpa armigera Nucleopolyhedrovirus strain BV-0003 | Andermatt Biocontrol | Insecticide |
| Howler Fungicide / Howler Lawn & Garden Fungicide | 91197-3 | Pseudomonas chlororaphis strain AFS009 | Agbiome Innovations Inc. | Fungicide |
| Intergize | 90866-26 | Gamma-aminobutyric acid, Cytokinin (as kinetin), & Choline chloride | PGR Advantage Inc. | Plant Growth Regulator |
| Isarid | 89635-5 | Isaria fumosorosea | Koppert Biological Systems, Inc | Insecticide |

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| Javelin WG Biological Insecticide | 70051-66 | Bacillus thuringiensis subsp. kurstaki strain SA-11 | Certis USA, LLC | Insecticide |
| Julietta | 86431-38 | Saccharomyces cerevisiae strain LAS02 | Agrauxine Corp. | Fungicide |
| Lalguard M52 GR | 64137-31 | Metarhizium Brunneum Strain 52 | Danstar Ferment AG / Lallemand Plant Care | Insecticide |
| Lalstop G46 WG | 64137-13 | Clonostachys rosea Strain J1446 | Danstar Ferment AG / Lallemand Plant Care | Fungicide |
| Lifegard LC Biological Plant Activator | 70051-126 | Bacillus mycoides isolate J | Certis USA, LLC | Plant Regulator / Biostimulant |
| Lifegard WG Biological Plant Activator | 70051-119 | Bacillus mycoides isolate J | Certis USA, LLC | Plant Regulator / Biostimulant |
| Majestene Bionematicide / Venerate XC / Zelto / Venerate CG | 84059-14 | Heat-Killed Burkholderia sp strain A396 cells and spent fermentation media | Marone Bio Innovations | Plant Regulator / Biostimulant |
| Metagro L | 90866-13 | Cytokinin and Indole - 3 butyric Acid (IBA) | CH Biotech R&D CO LTD | Plant Regulator / Biostimulant |
| Milstop SP | 68539-13 | Potassium bicarbonate | Bioworks, Inc. | Fungicide |
| Mycostop Biofungicide / Lalstop K61 WP | 64137-5 | Streptomyces strain K61 | Danstar Ferment Ag / Lallemand Plant Care | Fungicide |
| Mycotrol ESO / Botanigard ES / Botegha ES | 82074-1 | Beauveria bassiana strain GHA | LAM International Corporation | Plant Regulator / Biostimulant |
| Mycotrol Optima ESO / Botanigard Optima ES / Botegha Optima ES | 82074-17 | Beauveria bassiana strain GHA | LAM International Corporation | Plant Regulator / Biostimulant |
| Ninja Goldfish Plant Wash Concentrate | 25(b) | Soybean Oil, Corn Oil, Peppermint Oil | Ninja Goldfish | Fungicide, Insecticide, Miticide |
| Ninja Goldfish Plant Wash RTU | 25(b) | Soybean Oil, Corn Oil, Peppermint Oil | Ninja Goldfish | Fungicide, Insecticide, Miticide |
| NoFly WP | 88664-1 | Isaria fumosorosea strain FE 9901 | Blacksmith BioScience, LLC | Insecticide |
| Oxiphos | 70299-22 | Mono- and di-potassium salts of Phosphorus Acid; Hydrogen Peroxide | Futureco Bioscience SA | Fungicide, Bactericide |
| Pacesetter / Regalia 12 Biofungicide | 84059-21 | Reynoutria sachalinesis | Marone Bio Innovations | Fungicide |
| Pear T Liquid Concentrate / Spear-Lep | 88847-6 | GS-omega/kappa - Hxtx-Hv1a (spider venom peptides) | Vestaron Corporation | Fungicide |

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| PFR-97 10% ES Microbial Insecticide | 70051-133 | Isaria fumosorosea Apopka strain 97 | Certis USA, LLC | Insecticide |
| PFR-97 20% WDG Microbial Insecticide / Ancora | 70051-19 | Isaria fumosorosea Apopka strain 97 | Certis USA, LLC | Insecticide |
| Percarb | 70299-15 | Sodium Carbonate Peroxyhydrate | BioSafe Systems, LLC | Fungicide, Bactericide |
| Promote | 90866-23 | Gamma-aminobutyric acid, Cytokinin (as kinetin), & Choline chloride | CH Biotech R&D CO LTD | Plant Growth Regulator |
| Pvent (Discontinuance) | 64137-13 | Gliocladium catenulatem (maybe Clonostachys rosea) strain J1446 | Danstar Ferment Ag / Lallemand Plant Care | Plant Regulator / Biostimulant |
| Radiate | 34704-909 | Cytokinin (as kinetin), Indole-3-butyric acid | Loveland Products | Fungicide |
| Rango / Socoro / Proof Cold-Pressed Neem Oil Concentrate | 88760-10 | Neem Oil | Terramera Inc. | Fungicide |
| Regalia Bioprotectant Concentrate / Regalia CG Biofungicide | 84059-3 | Reynoutria sachalinesis | Marone Bio Innovations | Fungicide |
| Reliant Systemic Fungicide | 83416-1 | mono and Di Potassium Salts of Phosphoric Acid | Quest Products LLC | Fungicide |
| Rootshield Granules | 68539-3 | Trichoderma harzianum Rifai strain T-22 | Bioworks, Inc. | Fungicide |
| Rootshield Plus Granules Biological Fungicide | 68539-10 | Trichoderma harzianum Rifai strain T-22 & Trichoderma virens strain G-41 | Bioworks, Inc. | Fungicide |
| Rootshield Plus WP Biological Fungicide | 68539-9 | Trichoderma harzianum Rifai strain T-22 & Trichoderma virens strain G-41 | Bioworks, Inc. | Fungicide |
| Rootshield WP Biological Fungicide | 68539-7 | Trichoderma harzianum Rifai strain T-22 | Bioworks, Inc. | Fungicide |
| Sil-Matrix LC | 70051-127 | Potassium Silicate | Certis USA, LLC | Plant Regulator / Biostimulant |
| Stargus / Amplitude ST | 84059-28 | Bacillus amyloliquefaciens strain F727 | Marone Bio Innovations | Plant Regulator / Biostimulant |
| Sugar Mover Premier | 57538-67 | Cytokinin (as kinetin) | Stoller Enterprises, Inc. | Plant Regulator / Biostimulant |
| Terraclean 5.0 | 70299-13 | Ethaneperoxoic acid and Hydrogen peroxide | Biosafe Systems, LLC | Plant Regulator / Biostimulant |

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| Triatum-P Biological Fungicide | 89635-3 | Trichoderma harzianum | Koppert Biological Systems, Inc. | Fungicide |
| Vinagreen | 85208-1 | Vinegar (CAS 64-19-7) | Fleischmanns Vinegar Company | Herbicide |
| WarHammer | 25(b) | Chitosan | Blacksmith Bioscience, LLC | Nematicide, Fungicide, Bactericide |
| Xentari Dry Flowable Biological Insecticide | 73049-40 | Bacillus thuringiensis, subsp. aizawai strain ABTS 1857 | Valent Biosciences LLC | Insecticide |
| X-Tra Power Premier | 57538-69 | Cytokinin (as kinetin) | Stoller Enterprises, Inc. | Plant Regulator / Biostimulant |
| Zerotol 2.0 / GreenClean Liquid 2.0 / Oxidate 2.0 | 70299-12 | Hydrogen peroxide and peroxyacetic acid | Biosafe Systems, LLC | Plant Regulator / Biostimulant |
| Zorda WG Biological Fungicide | 73049-522 | Bacillus amyloliquefaciens strain PTA-4838 | Valent Biosciences LLC | Fungicide |

