

February 5, 2020

Hemp and Pesticides in Montana

Cecil Tharp (MSU Pesticide Education Specialist)

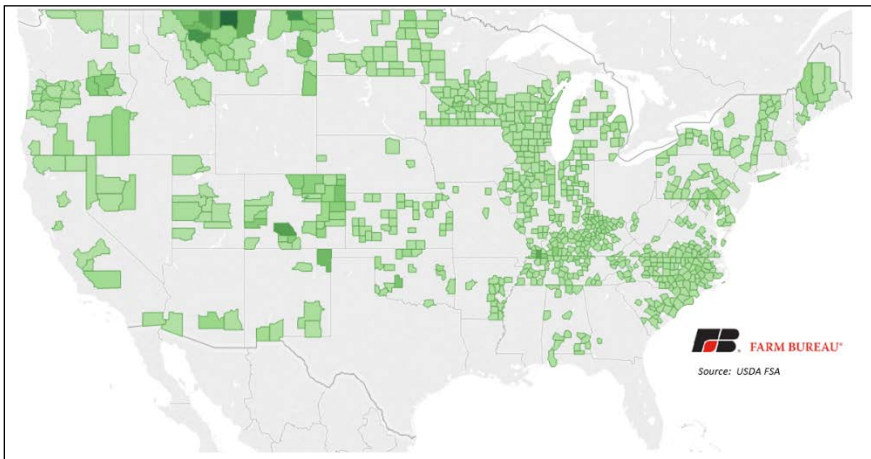


Figure 1. 2019 FSA reported hemp acreage by county. USDA Farm Service Agency.

Industrial hemp, *Cannabis sativa* L., was removed from the list of controlled substances and legalized through the 2018 Farm Bill if the THC content is less than 0.3%. Hemp production is now legal in 47 states with Montana ranked number one in the nation with 45,000 planted acres reported in 2019, followed by Colorado with 21,000 acres and Kentucky with 19,000 acres. Though this crop thrives in Montana, there has been confusion regarding the legal use of pesticides which vary from state to state. This alert is designed to assist producers/ag leaders in understanding the policies governing pesticides and hemp, as well as the pesticides which are now legal to use on hemp in Montana.

The Environmental Protection Agency (EPA) requires all pesticides sold or distributed in the United States to be registered according to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). This could be through many means, but for now, in Montana, we have ten products which fall under FIFRA Section 3, which is the main registration process, and two products falling under FIFRA Section 25(b), also known as minimum risk pesticides.

FIFRA Section 3

The conventional registration of pesticides by EPA falls under FIFRA Section 3 and takes many years and millions of dollars to obtain the necessary data. Data includes risk assessments, establishment of an acceptable maximum residue level (MRL) in food crops, label directions, ecological testing, etc. Since hemp has recently been legalized there are very few pesticides registered using this conventional process. EPA has approved of 24 pesticides which may be used on hemp for food/non-food purposes and they are registered in Montana (Table 1).

Minimum Risk Pesticides – 25(b)

The EPA has determined that certain "minimum risk pesticide active and inert ingredients" pose little to no risk to human health or the environment. If classified as minimum risk, then products wholly containing these ingredients are exempt from the FIFRA registration process. They are often referred to as 25(b) products as they are exempt under FIFRA Section 25(b). Minimum risk ingredients are automatically approved federally for use on all non-food sites,

however if used on a food site the ingredients must have Maximum Residue Limit (MRL) or MRL exemption established by the EPA. MRL’s are the maximum level of pesticide residue that is acceptable on food. See the guidance document on [pest management in hemp](#) that lists all 25(b) active ingredients which may easily be used on hemp for food or non-food purposes in Montana if the manufacturer sends a request to the Montana Department of Agriculture (MDA). At present only two fungicides can legally be used on hemp as a 25(b) in Montana:

- Fungout (AEF Global, Inc.); Citric Acid
- Custos (D2Bio); Garlic Oil, Peppermint, Rosemary Oil

Send the pesticide manufacturer a request if you think their 25(b) pesticide product would be an excellent fit for use on hemp in Montana. For more information see the [EPA minimum risk website](#).

Table 1. EPA approved pesticides for use on hemp under FIFRA section 3. See pesticide labels for more information.

Product Name(s)	EPA Reg. #	Active Ingredients	Type
General Hydroponics Exile	91865-2	Potassium Salts of Fatty Acids	Insecticide, Fungicide, Miticide
Debug Turbo	70310-5	Azadirachtin & Neem Oil	Insecticide, Miticide and Fungicide
Debug Optimo	70310-7	Azadirachtin & Neem Oil	Insecticide, Miticide, Fungicide
Debug Tres	70310-8	Azadirachtin & Neem Oil	Insecticide, Miticide, Fungicide
Debug On	70310-11	Neem Oil	Insecticide, Miticide, Fungicide
Regalia Biofungicide	84059-3	Extract of <i>Reynoutria sachalinensis</i>	Fungicide
Regalia Rx	84059-3	Extract of <i>Reynoutria sachalinensis</i>	Fungicide
Regalia CG	84059-3	Extract of <i>Reynoutria sachalinensis</i>	Fungicide
Stargus Biofungicide	84059-28	<i>Bacillus amyloliquefaciens</i> F727	Fungicide and Bactericide
Amplitude	84059-28	<i>Bacillus amyloliquefaciens</i> F727	Fungicide and Bactericide
Amplitude ST	84059-28	<i>Bacillus amyloliquefaciens</i> F727	Fungicide and Bactericide
General Hydroponics Prevasyn Insecticide	91865-1	Soybean Oil, Garlic Oil, & Capsicum Oleoresin	Insecticide
General Hydroponics Prevasyn Insecticide 2	91865-1	Soybean Oil, Garlic Oil, & Capsicum Oleoresin	Insecticide
General Hydroponics Defguard	91865-3	<i>Bacillus amyloliquefaciens</i> D747	Fungicide, Bactericide
Azamax Botanical	91865-4	Azadirachtin	Insecticide, Miticide, Nematicide
Exponent Insecticide Synergist	1021-1511	Piperonyl butoxide	Insecticide
Synerpro PBO Insecticide	53883-258	Piperonyl butoxide	Insecticide
PBO-8 Synergist	89459-33	Piperonyl Butoxide	Insecticide
Green Gobbler 20% Vinegar Weed Killer	85208-1-93489	Acetic Acid	Herbicide
Harris 20% Vinegar Weed Killer	85208-1-3	Acetic Acid	Herbicide
Natures Wisdom 20% Vinegar Herbicide	85208-1-90394	Acetic Acid	Herbicide
Vinagreen	85208-1	Acetic Acid	Herbicide
Vinagreen	85208-1-73015	Acetic Acid	Herbicide
Caron Defense	84846-1	Potassium silicate	Fungicide

Medical Marijuana

The legal use of pesticide products in this news release does not convey to medical marijuana growers wishing to manage pest problems. There are currently no legal pesticides for use on medical grade marijuana in Montana due to the current classification as a schedule 1 drug by the United States DEA.

For More Information

For updated information regarding legally approved hemp pesticide products in Montana contact the MDA Pesticide Registration Specialist (Jerin Borrego, 406-444-5471, jborrego@mt.gov), or search the [MDA registration database](#). Contact the MSU Pesticide Education Specialist (Cecil Tharp, 406-994-5067, ctharp@montana.edu) for other questions related to this news release. Individuals may wish to view EPA fact-sheets which detail approved [25\(b\) active](#) and [25\(b\) inert](#) ingredients for food and nonfood purposes.