Pesticide Products Approved for Use on Hemp A Registrant's Perspective

Michael Cordaro – Regulatory Manager, BioWorks, Inc.

•••••





Pesticide/Hemp Timeline:

- Dec 2018 2018 Farm Bill defined and legitimized hemp as a crop
- Mar 2019 EPA listening Session on Hemp
- May 2019 Pesticide Program Dialogue Committee (PPDC) addresses Hemp
- Jul 2019 Senate Agriculture Committee Hearing on Hemp
- Jul 2019 EPA reports it has 10 Hemp Label Amendments under review
- Sep 2019 BPIA meets with EPA to discuss adding hemp to Federal labels
- Oct 2019 USDA issues Regulatory Framework Interim Final Rule
- Dec 2019 EPA approves first 10 products for use on hemp (all exempt from tol)
- Feb 2020 EPA approves 16 more products (26 in total; all exempt from tolerance)



EPA Registered Products currently approved for use on hemp:

https://www.epa.gov/pesticide-registration/pesticide-products-registered-use-hemp

- Twenty Five Biopesticides and One Conventional Pesticide as of February 21st.
 - All Active Ingredients are exempt from tolerance
 - ✓ Seven = Neem/Azadirachtin
 - ✓ Six = Microbial
 - ✓ Six = Plant Growth Regulator, Induce Plant Resistance
 - Does not include 6 products already Federally Registered for "Industrial Hemp"
 - ✓ Three = Plant Growth Regulator
 - ✓ Three = Synergist



Example of Active Ingredients Exempt From a Tolerance:

Trichoderma harzianum (T-22); Trichoderms virens (G-41)

Beauveria bassiana (GHA)

Bacillus thuringiensis subsp. kurstaki strain (EG7841)

Bacillus Subtilis (QST 713); Bacillus mycoides (isolate J)

Bacillus amyloliquefaciens (strain F727); Streptomyces sp. (strain K61)

Ulocladium oudemansii (U3 strain); Isaria fumosorosea Apopka (strain 97)

Hydrogen Peroxide; Potassium Bicarbonate

Indole-3-Butyric Acid and Cytokinin (as Kinetin); Complex Polymeric Polyhydroxy Acids

Mineral Oil; Pyrethrin; Azadirachtin and Neem Oil

Example of Conventional Chemical Exempt from a Tolerance:

Potassium Salts of Fatty Acids



Pesticide Program Dialogue Committee (PPDC) May 8-9, 2019

"When you know how one state works, you know how one state works."

"In the absence of information and viable options, (invested parties) default to other sources, for example, Internet or hearsay."

From AAPCO Member Presentation @ PPDC



	Q: Is that my entire toolkit for hemp crop protection? A: It depends
	State permission to use products already approved for marijuana?
ditional Pest management tools that do not require EPA registration	
	Beneficial Insects (BCA's = Biological Control Agents)
	Nematodes
	Minimum Risk Pesticides = FIFRA Section 25(b)
	Note: Although 25(b) pesticides do not need Federal registration, they may
	require registration at the state level.



Q: Given all that, are there any other products that I can use on hemp?

A: Yes, maybe

□ FIFRA 24(c) Special Local Needs (SLN's) Registrations

- Allows individual states to expand federally registered labels to address problems with specific crops or specific pests that are not already on the label.
- SLN's denied for Marijuana programs but identified as a pathway for hemp programs.
- □ FIFRA Section 18 authorizes EPA to allow Emergency Exemptions for unregistered uses of pesticides.
 - Deemed inappropriate for hemp programs.



Status of chemical pesticides with Maximum Residue Limits

- ☐ Given that some Hemp products are destined for human consumption (food, supplements, inhalation) the risk assessment process for setting a tolerance is complicated.
- ☐ Once the risk assessment process is determined, product testing will likely require numerous scientific studies.
- ☐ Final determination involves other Agencies: FDA, USDA





Michael Cordaro

Regulatory Manager (800) 877-9443

WWW.BIOWORKSINC.COM

