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December, 2011

Regulatory Status Pesticides Used in the Mushroom Industry

Active Ingredient	Product Name(s)	RED Issued	RED Scheduled	Comments
Insecticides				
Azadirachtin	Amazin™ 3% EC and others		08/2006 (not issued as of 12/2010)	EPA announced the initiation of Registration Review on September 24, 2008. A final decision is expected in June 2014.
Cyromazine	Armor®			EPA issued a Final Work Plan for Registration Review in 8/07. Public comment period for proposed decision is Q1, 2012, with a final decision in 2012.
Diflubenzuron	Dimilin®	06/1997		
Malathion 5	Malathion	07/2006		<p>Malathion was successfully reregistered. The mushroom use and the 12 hour reentry interval were maintained. EPA proposed to reduce the tolerance from the current 8 ppm to 0.2 ppm, however that change has not occurred.</p> <p>The docket for Registration Review was opened 6/24/2009. The preliminary risk assessments will be published for comment during January-March, 2014. The open public comment period for the proposed Review decision will be July-September, 2014, with a final decision in 2015.</p>
Methoprene	Apex®	03/1991		

Permethrin	Permethrin 3.2 EC Insecticide Pounce	04/2006 Amended RED 12/2007		<p>The low pressure handwand and the fogging applications will be maintained. The mushroom label will remain the same with the exception of deletion of the high-pressure handwand application, which was not used in the mushroom industry. The Amended RED clarified that the use pattern will not change.</p> <p>EPA proposed reducing the mushroom tolerance from 6.0 ppm to 5.0 ppm, however this change will not occur for some time.</p> <p>On November 9, 2011, EPA issued a press release with a favorable conclusion about pyrethroid/pyrethrin risk assessments: “exposures from the many current uses of pyrethrins and pyrethoid insecticides do not pose risk concerns for children or adults. Further, the cumulative assessment supports consideration of registering additional new uses of these pesticides.”</p>
Propoxur	Prentox® Prenbay™ 1.5 EC	09/1997		This product was reregistered without changes in the use pattern pertinent to the mushroom industry.
Pyrethrins	Diatect® V PyGanic®	06/2006		<p>Pyrethrins were reregistered without changes in the mushroom use pattern.</p> <p>See comment for permethrin regarding 11/9/2011 EPA press release.</p>
Pyrethrins + piperonyl butoxide	Evergreen® Crop Protection Turbocide® Shroom	06/2006		<p>Pyrethrins and piperonyl butoxide (PBO) were reregistered without changes in the mushroom use pattern.</p> <p>See comment for permethrin regarding 11/9/2011 EPA press release.</p>
Piperonyl butoxide	Exponent® Insecticide Synergist	06/2006		

Fungicides				
Chlorothalonil	Bravo®, Echo®	04/1999		Registration Review is expected to be completed in 2012.
Thiabendazole	Mertect ® 340-F	08/2002		The Supplemental label allows application to the spawn. Thus, the product can be used as an admix with mushroom spawn grains, supplement, and/or as a drench during normal watering operations for mushroom growing beds at casing or between breaks. The supplemental label can be found from a link on the summary sheet on the AMI website.
QST 713 strain of dried Bacillus subtilis	Jazz			This fungicide was registered for the first time in 2008.
Sanitizers/Wood Preservatives				
Chlorine Dioxide	Cryocide® 20, Carnebon 200® Anthium Dioxide®	08/2006		The mushroom uses were maintained. Registration Review is not scheduled until 2017.
Propiconazole	Safetray®-P	07/2006		The current mushroom label was maintained.
Orthophenylphenol (OPP)	1-StrokeEnviron®	07/2006		The current mushroom label was maintained. EPA proposed an inadvertent tolerance for mushrooms, the action is still pending at EPA.