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March, 2014

### Regulatory Status Pesticides Used in the Mushroom Industry

Active Ingredient	Product Name(s)	RED Issued	RED Scheduled	Comments
<b>Insecticides</b>				
Azadirachtin	Amazin™ 3% EC AzaGuard and others		08/2006 (not issued as of 3/2014)	EPA announced the initiation of Registration Review on September 24, 2008. A final decision is expected in June 2014.
Cyromazine	Armor®, Aegis			EPA issued a Final Work Plan for Registration Review in August 2007. A comment period closed May, 2013. The registration review decision is pending.
Diflubenzuron	Dimilin®	06/1997		Registration Review initiated September 2012. According to the February 2, 2013 workplan, a decision is expected in 2019.
Malathion	Malathion 5	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 are scheduled to 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		Registration Review initially scheduled for FYI 2013, but it is not included in the 2012-2015 schedule.
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>The current tolerance is 5.0 ppm, reduced from the previous 6.0 ppm, in accordance with the RED Registration Review was opened 6/29/2011. 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.” Registration Review decision expected 2017 according to the December 2011 final work plan.</p>
Propoxur	Prentox® Prenbay™ 1.5 EC	09/1997		<p>In the RED, this product was reregistered without changes in the use pattern pertinent to the mushroom industry – this product can only be used outdoors for mushroom houses.</p> <p>The Registration Review docket opened December 16, 2009, with a final decision expected in 2015.</p>
Pyrethrins	PyGanic®	06/2006		<p>Pyrethrins were reregistered without changes in the mushroom use pattern.</p> <p>Comments on permethrin apply to pyrethrins.</p>

Pyrethrins + piperonyl butoxide	Evergreen® Crop Protection Turbocide® Shroom	06/2006		Pyrethrins and piperonyl butoxide (PBO) were reregistered without changes in the mushroom use pattern. Comments on permethrin apply.
Piperonyl butoxide	Exponent® Insecticide Synergist	06/2006		Registration Review initiated December 2012. The open comment period is scheduled for July-September 2012. The Registration Review decision is expected 2016.
<b>Fungicides</b>				
Chlorothalonil	Bravo®, Echo®	04/1999		Registration Review was initiated 9/2/12. The public comment period is scheduled for April-June 2017, with a final decision in 2018.
Thiabendazole	Mertect ® 340-F Mecuria	08/2002		For Mertect 340-F, 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.
Thiabendazole	Mertect 60W			Section 18 registrations are available for this product and they are described on the website.
QST 713 strain of dried Bacillus subtilis	Jazz			This fungicide was registered for the first time in 2008.
<b>Sanitizers/Wood Preservatives</b>				
Chlorine Dioxide	Cryocide® 20, Carnebon 200® Anthium Dioxcide®	08/2006		The mushroom uses were maintained. Registration Review is scheduled to begin in FY 2015.

Propiconazole	Safetray®-P TrayGuard	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. Registration Review initiation is scheduled for FY 2014.
5% alkyl (C <sub>14</sub> 60%, C <sub>16</sub> 30%, C <sub>12</sub> 5%, C <sub>18</sub> 5%) dimethyl benzyl ammonium chloride 5.0% alkyl (C <sub>12</sub> 68%, C <sub>14</sub> 32%) dimethyl ethylbenzyl ammonium chloride	Maquat 10			Registration Review initiation scheduled for FY 2015