Addendum to the Finding of No Significant Impact for the Golden Nematode Ro2 Eradication in Livingston and Suffolk Counties, New York Environmental Assessment September 2008

This addendum to the finding of no significant impact (FONSI) was prepared because of a proposed change in the fumigant formulation to be used in the Golden Nematode (GN) Ro2 Eradication Program. The analysis that was done previously remains relevant. This addendum explains how the proposed change in formulation, coupled with mitigation measures, continues to result in no significant impact to the environment.

In July 2008, the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), prepared an environmental assessment (EA) that analyzed potential environmental consequences of eradicating the Ro2 race of GN (GN Ro2) from infested fields in Livingston and Suffolk Counties, New York. The EA and finding of no significant impact (FONSI) are available at: http://www.aphis.usda.gov/plant health/ea/index2.shtml.

The eradication program has been regularly fumigating fields infested by GN Ro2 with a formulation of 98 percent methyl bromide and 2 percent chloropicrin. The program plans to change formulations of the methyl bromide product to one that is 80 percent methyl bromide and 20 percent chloropicrin. While the application rate would remain the same (up to 600 pounds per acre), the amount of methyl bromide per application would be reduced from up to 588 pounds per acre to a maximum of 480 pounds per acre, and the chloropicrin would increase from a maximum of 12 pounds per acre to a maximum of 120 pounds per acre.

The September 2008 EA analyzed the potential risks from the use of both methyl bromide and chloropicrin and determined that, while both products are toxic, the manner in which they are used (soil injection which is then covered with a tarp to reduce volatilization, as well as the posting of warning signs) resulted in minimal risk to humans, nontarget species (other than soil invertebrates in the area of application), and the environment. The increase in use of chloropicrin in the proposed formulation could result in additional risk to human health and the environment as the toxicity of chloropicrin is greater than methyl bromide (EPA, 2009a; EPA, 2009b). An increase in risk that is logically associated with an increase in the application rate of chloropicrin (from 12 pounds per acre to 120 pounds per acre) would be offset by additional mitigation measures that will be implemented in the program and the strong olfactory warning properties of the chemical.

In 2009, both fumigants, as well as others, were re-evaluated by the U.S. Environmental Protection Agency (EPA) as part of the reregistration process. The outcome of these evaluations was the development of new mitigation measures that will further reduce the risk of these types of products to human health and the environment. Some of these measures are currently in the process of being adopted over the next 2 years; however, several are already required, such as new agricultural practices, new handler protections, tarp cutting and removal restrictions, extended reentry restrictions, and a variety of other measures that are discussed in more detail at: http://www.epa.gov/pesticides/reregistration/soil_fumigants/implementing-new-safety-measures.html.

An example of a mitigation measure that will reduce environmental exposure in this program is the requirement that tarps covering the treatment site must remain in place for a longer time (5 days rather than approximately 4 days). This allows additional time for degradation of the chemical. In addition, the tarp that would be specified for use has a much lower mass transfer coefficient, for both methyl bromide and chloropicrin, than the tarps used in the past. This means that volatilization of the fumigants will be greatly reduced, with the effect that more fumigant remains in the soil for a longer period of time which should improve its effectiveness, while limiting risk from volatilization. The risks for any surface/ground water contamination remain minimal due to the additional mitigation measures required by EPA.

Methyl bromide is listed as an ozone depleting compound. As discussed in the EA, the GN Ro2 Eradication Program results in a minor contribution to the total manmade methyl bromide released to the atmosphere globally. The proposed decrease in methyl bromide application rate from 588 pounds per acre to 480 pounds per acre will result in approximately an 18 percent decrease in the amount of methyl bromide used and potentially released by the GN Ro2 program.

An environmental impact statement (EIS) must be prepared if implementation of the proposed action may significantly affect the quality of the human environment. Based on the above information, I have determined that the proposed change in the fumigant formulation used in the GN Ro2 Eradication Program would result in no significant impact to the human environment and, therefore, no EIS needs to be prepared.

Honer hanti 25 April 2011 Date

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References

EPA-See U.S. Environmental Protection Agency

U.S. Environmental Protection Agency, 2009a. Amended reregistration eligibility decision for methyl bromide (soil and non-food structural uses). U.S. Environmental Protection Agency 738–R–09–311. 180 pp.

U.S. Environmental Protection Agency, 2009b. Amended reregistration eligibility decision (RED) for chloropicrin. U.S. Environmental Protection Agency 738R–09308. 197 pp.