

**Addendum to the Finding of No Significant Impact  
for the  
Potato Cyst Nematode Eradication in Idaho  
Amended Environmental Assessment  
July 2007**

This addendum to the finding of no significant impact (FONSI) was prepared because of a proposed change in fumigant formulation to be used in the potato cyst nematode (*Globodera pallida*) (PCN) eradication program. The analysis that was done previously remains relevant. This addendum explains how the proposed changes in formulation, coupled with mitigation measures, continues to result in no significant impact to the environment.

In April 2007, 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 PCN from infested fields outside of Shelley, Idaho. The EA was amended in July 2007 to allow for modifications to the fumigants used, specifically, to allow the use of up to two applications of DCP (1,3-dichloropropene, sold under the name of Telone II<sup>®</sup>) at a rate up to double the rate previously analyzed. That amended EA and FONSI are available at: [http://www.aphis.usda.gov/plant\\_health/ea/index2.shtml](http://www.aphis.usda.gov/plant_health/ea/index2.shtml).

Since 2007, the PCN eradication program has been regularly fumigating fields infested by PCN with a 98 percent methyl bromide/2 percent chloropicrin formulation and with Telone<sup>®</sup>. 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 (400 pounds per acre), the amount of methyl bromide per application would be reduced from 392 pounds per acre to 320 pounds per acre, and the chloropicrin would increase from 8 pounds per acre to 80 pounds per acre.

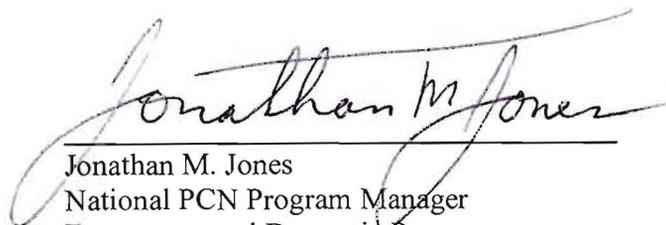
The July 2007 amended EA analyzed the potential risks from the use of both methyl bromide and chloropicrin and determined that, while both products are toxic, the manner in which they are used (soil injection then covered with a tarp to reduce volatilization and enhance degradation, and the posting of 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 because the toxicity of chloropicrin is greater than methyl bromide (EPA, 2009a; 2009b). An increase in risk that is logically associated with an increase in the application rate of chloropicrin from 8 pounds per acre to 80 pounds per acre would be offset by additional mitigation measures that will be implemented in the program. 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](http://www.epa.gov/pesticides/reregistration/soil_fumigants/implementing-new-safety-measures.html). An example of a 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 time, which should improve its effectiveness while limiting risk from volatilization. The risks for any surface/ground water contamination are the same with the proposed change in formulation because the soil type and proximity to surface water (as described in the amended EA) eliminate those concerns.

Methyl bromide is listed as an ozone-depleting compound. As acknowledged in the amended EA, the PCN eradication program results in a minor contribution to the total man-made methyl bromide released to the atmosphere globally. The proposed decrease in methyl bromide application rate, from 392 pounds per acre to 320 pounds per acre, will result in approximately an 18 percent decrease in the amount of methyl bromide used and potentially released by the PCN 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 PCN eradication program would result in no significant impact to the human environment and, therefore, no EIS needs to be prepared.



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8 April 2011  
Date

#### 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). EPA 738-R-09-311. 180 pp.

U.S. Environmental Protection Agency, 2009b. Amended reregistration eligibility decision (RED) for chloropicrin. EPA 738-R-09-308. 197 pp.