

U.S. HOUSE OF REPRESENTATIVES

Testimony Before the Sub Committee on  
Energy and Commerce

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Hearing on U.S. Agricultural Sector Relief Act of 2012  
&  
The Asthma Inhalers Relief Act of 2012

Mark Murai, President  
California Strawberry Commission

7/18/2012  
Washington, D.C.

**PREPARED TESTIMONY OF MARK MURAI**

**At Congressional Hearing:**

**Sub Committee on Energy and Commerce**

**July 18, 2012 in Washington, D.C.**

Good morning Mr. Chairman and Ranking Member.

My name is Mark Murai. I am a third-generation strawberry farmer and president of the California Strawberry Commission. I represent all of California's strawberry farmers, shippers, and processors.

Thank you for holding a hearing on the topic of the Montreal Protocol. It is critical that all of us achieve economic and environmental progress together.

Farmers Lead the World to Find Alternatives

The United States has eliminated over 90% of ozone depleting products and the ozone layer is healing faster than predicted<sup>1</sup>. I am proud to say that strawberry farmers have taken this seriously. We have innovated new farming techniques (such as drip fumigation) and employed new technologies (such as emission reduction measures) to reduce our methyl bromide imprint.

California strawberry farmers are also leaders in organic production methods. These farmers grow more organic strawberries than all other 49 states combined. In fact, nearly one out of five California strawberry farmers also farm with organic methods.

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<sup>1</sup> *Scientific Assessment of Ozone Depletion: 2010*. National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, United Nations Environment Programme, World Meteorological Organization, European Commission

Largely due to our commitment, the U.S. Environmental Protection Agency (EPA) awarded California strawberry farmers with the 2008 Stratospheric Ozone Protection Award for transitioning more strawberry acres to alternatives, faster than any other place in the world.

We are not resting on this success. We continue to innovate and seek alternatives. Most recently, we expanded our partnership with California's EPA in a joint research project aimed at finding fumigant alternatives. As these efforts move forward, it is essential that EPA adopt a more balanced approach that recognizes our accomplishments as well as the realities of farming.

### Farmers Need Clean Soil

Specifically, strawberry farmers require clean soil, free of harmful bacteria, fungus, and pathogens. To fully grasp the seriousness of soil disease, one only needs to remember the Irish potato famine, where an entire nation and crop was decimated by germ-infested soil.

The same is true of our crop: in the past century, strawberries have been repeatedly wiped out by disease. Notwithstanding its damage to the ozone, methyl bromide revolutionized farming because it cleaned the soil, protecting our plants and livelihoods.

When EPA told us to replace methyl bromide with other fumigants we did so. At first, we switched to drip applied alternatives. However, after multiple years of repeated use of the alternatives, we learned that they did not work on all of the soilborne diseases. In 2008, we saw the emergence of new diseases that resulted in widespread crop failure<sup>2</sup>. The following images show the impacts.

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<sup>2</sup> Dr. Tom Gordon, *Professor and Chair, Department of Plant Pathology, University of California, Davis*, letter to Dr. Dan Legard. July 25, 2008.



*2008, California Strawberry fields in a state of collapse after being treated with non-methyl bromide alternatives that were not effective against soil borne disease.*

### The CUE Process Needs to be Improved

In response to this new data, we submitted a request to EPA for a Critical Use Exemption (CUE) that would allow us to clean the soil of these diseases. We proposed that we could reduce methyl bromide use by using the alternatives for several years and then cleaning the soil with methyl bromide once every three or four years. In other words, we proposed a system to rotate different treatments that would achieve both reduced use of methyl bromide as well as clean soil.

Unfortunately, the EPA responded by telling farmers to use methyl iodide instead. More specifically, EPA stated, "Our 2013 critical use nomination assumes an aggressive transition rate to methyl iodide of 7% per year between now and 2013, resulting in a reduction of 21%..."<sup>3</sup> ...However, methyl iodide registration has been canceled in California and the registrant has withdrawn the product.

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<sup>3</sup> EPA Communique to the Montreal Protocol, via the U.S. Department of State. August 25, 2010,

We requested that EPA restore the amount of methyl bromide immediately, but they have not yet taken any action to help the farmers.

### New Science Report on Methyl Bromide C.U.E.'s

The newest scientific information by 312 international scientists sponsored by NOAA, NASA, UNEP, WMO, and the E.U. report that:

- The ozone layer is improving faster than predicted.
- It will require about 39 years to fully restore the ozone layer to 1980 levels.
- Methyl bromide C.U.E.'s will have virtually no effect on the 39 year schedule.

More specifically, the report stated,

*"...the Scientific Assessment of Ozone Depletion: 2010 is the product of 312 scientists from 39 countries of the developed and developing world who contributed to its preparation and review (191 scientists prepared the report and 196 scientists participated in the peer review process)."*

*"Methyl bromide: Continuing critical-use exemptions at the approved 2011 level indefinitely would delay the return of EESC to 1980 levels by 0.2 year."*

In other words, indefinite use of methyl bromide at 2011 C.U.E. levels would delay the repair of the ozone layer by 73 days.

What is the benefit of allowing continue use of methyl bromide?

The California Department of Food and Agriculture commissioned an economic study by the University of California Davis. This report states that if there is no methyl bromide and no methyl iodide, California communities will lose over \$1.5 billion annually and more than 23,000 jobs annually<sup>4</sup>.

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<sup>4</sup> *Costs of Methyl Iodide Non-Registration: Economic Analysis.* Goodhue, Rachel, Howard, Peter, Howitt, Richard. California Department of Food and Agriculture. May 2010.

If all of the scientists and economists are accurate, the environmental impact of continued methyl bromide C.U.E.'s would add less than 73 days to a 39 year schedule, while the economic benefit will be \$58 billion and 897,000 jobs, over those same 39 years.

Please help to bring some common sense to this issue and restore our C.U.E.



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25 July 2008

Dan Legard, Ph.D.  
Director of Research  
California Strawberry Commission

Dear Dan:

As per your request, I am providing you with a brief summary of observations and laboratory results related to recent problems affecting strawberry fruit production fields in the Oxnard/Camarillo area. In June of this year, dead and dying plants were sampled in four fields that received pre-plant bed fumigation with something other than methyl bromide. Plants from three of these fields were similar in that a species of *Fusarium* grew directly from the water conducting tissue (xylem) in the crown. In some cases, the same fungus was also recovered from petioles. It is very unusual to recover fungi from within the vascular tissue unless they are pathogenic. Thus, although not all tests have yet been completed, it is highly likely that the fungus recovered from diseased strawberry plants is a vascular pathogen. Such a pathogen, a specialized strain of *Fusarium oxysporum*, is known from Japan and may have been introduced into California. Most likely prior use of effective fumigants prevented the pathogen from becoming established. In the absence of such treatments, there is a great risk that this pathogen will become more widespread and have a significant negative impact on strawberry production throughout California.

In the fourth field, although symptoms appeared superficially similar to those in the other three fields, *Fusarium* was not recovered from any of the sampled plants. Instead, *Macrophomina* grew luxuriantly from the crown tissue of all plants. Thus, it appears that at least two different fungal pathogens may be responsible for the increasingly common collapse problems observed in Southern California. As with *Fusarium* it seems likely that problems caused by *Macrophomina* will become more common in the absence of recourse to effective fumigants, such as methyl bromide.

Please let me know if I can provide any further information on this.

Sincerely,

Thomas R. Gordon  
Professor and Chair  
Department of Plant Pathology