



# BEYOND PESTICIDES

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National Organic Standards Board  
Spring 2013 Meeting  
Portland, OR

## Re. Tetracycline Petition

These comments are submitted on behalf of Beyond Pesticides. Beyond Pesticides, founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and groups around the world.

Beyond Pesticides supports the minority position of the Crops Subcommittee in opposition to the petition. The use of tetracycline to control fire blight in apples and pears meets none of the criteria of the Organic Foods Production Act (OFPA). It presents significant adverse impacts to human health and the environment, is incompatible with organic and sustainable agriculture, and is not essential. We are shocked to see that the majority of the Crops Subcommittee found that tetracycline meets all three criteria. In 2008, the NOSB found that it “only marginally” met the impact on human health and the environment criterion and failed the other two. In 2011, the NOSB found that it failed all three. And this year, the majority recommends a two-year extension on the expiration date. It is therefore remarkable that the majority found that tetracycline meets all three criteria.

### 1. Tetracycline use poses significant health and environmental threats.

It is particularly shocking that the majority of the Crops Subcommittee disputes the prevailing view of scientists and medical practitioners concerning the urgency and causes of the problem of antibiotic resistance. Surely, everyone on the Board has had either firsthand or secondhand experience with antibiotic resistant infections—whether it is a child with ear infections that fail to respond to one antibiotic after another, a relative who died from methicillin-resistant *Staphylococcus aureus* (MRSA), someone who acquired a multiply resistant infection in the hospital, or another experience with persistent and non-responsive infections. The Infectious Disease Society of America (IDSA) estimates the annual cost of antibiotic-resistant infections to be 21 to 34 billion dollars, and states, “Just one organism, methicillin-resistant *Staphylococcus aureus* (MRSA), kills more Americans every year than emphysema, HIV/AIDS, Parkinson’s disease, and homicide combined.”<sup>1</sup>

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<sup>1</sup> IDSA, “Facts About Antibiotic Resistance”

[http://www.idsociety.org/IDSA/Site\\_Map/Topics\\_of\\_Interest/Antimicrobial\\_Resistance/Public\\_Policy/Facts\\_about\\_Antibiotic\\_Resistance.aspx](http://www.idsociety.org/IDSA/Site_Map/Topics_of_Interest/Antimicrobial_Resistance/Public_Policy/Facts_about_Antibiotic_Resistance.aspx) accessed 2/14/2013.

Thus, “Antimicrobial resistance is recognized as one of the greatest threats to human health worldwide.”<sup>2</sup> The majority opinion goes to great lengths—to the extent of inaccurately describing findings in the Technical Report and other scientific findings, as well as dismissing without evidence findings well-supported by science—to downplay the importance of tetracycline resistance and its relationship to tetracycline use. For example, the statement on page 4, “While oxytetracycline is used to treat a wide variety of human bacterial infections and diseases, the 2011 TR (lines 593-597) cites the Centers for Disease Control and Prevention (CDC) as indicating that resistance has not yet occurred for these drugs,” misrepresents the statement cited, which says, “Oxytetracycline is also used as a second line of defense for bacteria that pose significant health threats, such as anthrax. It is important to note that there are alternatives available to treatment with oxytetracycline. In regard to other tetracyclines, the CDC has indicated that resistance to tetracyclines has not yet occurred in important pathogens including chlamydia, mycoplasmas, rickettsiae, and spirochetes (EPA, 2006a).” (The minority position has cited other studies showing resistance to tetracycline as well.) The majority opinion states on page 5, “[T]here are no examples of acquisition of tetracycline-resistance genes by *E. amylovora* in orchards,” and on page 8, “The fire blight organism has not shown any signs of resistance itself,” without evidence to support the contradiction with the TR statement (lines 577-579), “Although there have been reports of oxytetracycline resistant strains of *E. amylovora* in apple orchards, the extent of this resistance is unknown at present time (EPA, 2006a).” The majority also seeks to rebut science introduced by the minority with unsupported statements by the petitioner—see category 1, question 2.

The majority opinion also rejects the prevailing scientific view of how antibiotic resistance is spread. Their conclusion on page 8, “Human pathogens have not been found in orchards and would have to be present for the resistance genes to transfer” exemplifies a critical lack of understanding. The minority position describes the current scientific understanding of the spread of resistance through selection and horizontal gene transfer. This is considered to be a serious enough matter by the Infectious Diseases Society of America that it commented to EPA on an emergency exemption request for gentamicin use for fire blight, “There is ample reason to be concerned about adverse human health effects from gentamicin use in plant agriculture...[A] risk assessment model should be developed to understand the potential for adverse health consequences in humans. The FDA has used this approach in guidance to industry for microbial safety of antimicrobial use in food animals, and an equally rigorous approach is needed for use in plant agriculture.”<sup>3</sup> And,

Granting the Michigan Department of Agriculture’s exemption request would set an unfortunate and dangerous precedent during an era when we cannot afford to lose yet another therapeutic option for treating serious infections. IDSA is extremely concerned about the possibility that the direct or indirect effects of gentamicin use in plant agriculture may seriously compromise gentamicin’s effectiveness in the treatment of

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<sup>2</sup> IDSA, “Facts About Antibiotic Resistance”

<sup>3</sup> IDSA, April 27, 2006. Letter from Martin J. Blaser, president, to EPA. Re: Comments on Docket ID Number EPA-HQ-OPP-2006-0234 (Receipt of Application for Emergency Exemption: Gentamicin). Pp. 1-2.

human bacterial infections. We support further research in this area, but **we strongly oppose even one-time use of gentamicin in plant agriculture until the microbial safety has been thoroughly evaluated.**<sup>4</sup> (Emphasis added.)

This letter from IDSA is attached to these comments.

In addition, IDSA testified before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Health on July 14, 2010 about promoting judicious use of medically important antibiotics in animal agriculture. It stated, “IDSA also supports the elimination of non-judicious uses of antibiotics in plant agriculture. Antibiotics currently are used inappropriately on fruit and vegetables (e.g., use of gentamicin as a pesticide in apple orchards).”<sup>5</sup> The IDSA testimony is attached to these comments.

We hope that the NOSB will invite someone like a representative of the IDSA to explain the science and medical importance of the spread of antibiotic resistance.

## **2. Tetracycline use is incompatible with a system of organic and sustainable agriculture.**

As the minority opinion points out, the use of antibiotics in organic agriculture is contrary to consumer expectations. It is inconsistent with practices in much of the rest of the world. Livestock farmers have rightly asked why is antibiotic use acceptable to save crops but not animals. Finally, reliance on antibiotics is not sustainable because pathogens will develop resistance.

## **3. Tetracycline use is not necessary.**

The most telling argument presented by the minority is the fact that so many organic apple and pear growers are growing for the European Union, which does not allow antibiotics. Certainly, many of these growers like having tetracycline as a backup, but it is not necessary. Given the importance of the crisis of antibiotic resistant infectious diseases, we need to ask –along with the IDSA—“Will we have 'antibiotics to cure sick apples, or sick children?’”<sup>6</sup>

## **4. It is time to finally say “No” to antibiotics in organic fruit.**

The proposed resolution does no more than the motion that was passed in 2011. Only biting the bullet and denying the petition for an extension will finally make organic production of apples and pears what the public expects. The organic apple industry does not have a good record of listening to science and public opinion about its favorite chemicals. A high percentage of today’s apple growers are the same people who ignored warnings about Alar for years, and caused the industry to collapse by ignoring those warnings. Now they are organic growers. That’s great. But organic consumers have expectations that are not consistent with the use of

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<sup>4</sup> IDSA, April 27, 2006. P. 2.

<sup>5</sup> IDSA, July 14, 2010. Statement on Antibiotic Resistance: Promoting Judicious Use of Medically Important Antibiotics in Animal Agriculture Before the House Committee on Energy and Commerce Subcommittee on Health

<sup>6</sup> Physicians Ask EPA, 'Antibiotics To Cure Sick Apples, Or Sick Children?' Science Daily, August 4, 2008. <http://www.sciencedaily.com/releases/2008/07/080731173137.htm>

antibiotics on their food, just as parents do not expect to have carcinogens in their children's food.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is fluid and cursive, with a prominent initial "T" and a long, sweeping underline.

Terry Shistar, Ph.D.  
Board of Directors

Attachments:

IDSA letter to EPA, April 27, 2006.

IDSA, July 14, 2010. Statement on Antibiotic Resistance