Introduction
At the April 2011 National Organic Standards Board (NOSB) meeting, public comment was received, and supported by discussion among NOSB members, asking the NOSB to create a process to collect, prioritize and advocate for research related to use of materials in organic production or handling. The Materials Committee accepted the request as a workplan item. This document shares the committee’s current thinking on a process to collect, prioritize, and maintain research needs related to organic production methods and materials on the National List of Allowed and Prohibited Substances, or being petitioned for listing on, the National List. The committee has posed questions at the end of the document on which we seek the input of the full NOSB, the USDA National Organic Program (NOP) and the public so that we can continue our work.

Background
The discussion of whether a material should be listed on the National List is sometimes a balance of the benefits that use of the material brings balanced against concerns with the use of the material—that is, we are concerned about both whether the use of the material is consistent with a system of organic and sustainable agriculture and whether effective and efficient alternatives exist. Over the past several years the NOSB has been faced with extending use of several materials (e.g., methionine and tetracycline) concerning which we heard public comment that the public wished that better alternatives had been identified. The NOSB has heard evidence that alternatives exist, but has found the evidence insufficient in some way, such as the lack of ‘hard’ science to support their viability or an inadequate consideration of the variation in production conditions.

The discussion and public comment at the April 2011 NOSB meeting related to the use of tetracycline and streptomycin for use in fire blight control on apple and pear trees highlighted the need for research into alternatives for some materials on the National List. Several public comments talked about the lack of funding for these topics or the need for adequate justification that research was necessary. As a result of those discussions, the NOP issued letters to the USDA National Institute for Food and Agriculture (NIFA) and the USDA Agricultural Research Service (ARS) to request their assistance in prioritizing research on alternatives to tetracycline and streptomycin for fire blight control in apples.

Subsequent to NOSB debate on tetracycline, the NOSB heard public comment asking the NOSB to be more proactive in advocating for research related to
materials use in organic production. It was clear at the meeting that a more formalized approach to advocating for research was needed. Hence, the Materials Committee accepted the workplan item to develop a framework for doing so.

In developing this framework, the committee asked what problems such a framework was intended to address. As we reviewed the past several years of board discussion on materials we saw that:

- The NOSB continues to receive petitions to extend the listing date of materials for which the NOSB has recommended an “expiration” date (e.g., methionine). A lack of research on alternatives means that these extensions continue to be requested and recommended by the board without NOSB consensus.
- We want to see more resources invested into priority areas of need related to materials and organic production practices.
- Some materials being reviewed by the Board come with widely differing perspectives related to benefits and risks, and the NOSB has no opportunity to be proactive about getting research into alternatives.
- There is no public forum for publishing a list of research needs and priorities. As a consequence, there is little incentive to research those areas because there is no public acknowledgment that funding is needed.

The primary goal of this framework is to gain NOSB alignment on criteria for prioritizing research needs and a process for collecting and communicating research needs. Additional benefits could include:

- Influencing where research dollars are directed
- Allowing the NOSB to be more proactive with regards to problematic or controversial National List substances by creating a mechanism to advocate for primary research ahead of material review dates
- Highlighting research results that will satisfy many different stakeholders and align the various stakeholders on research conclusions
- Reducing disagreement within the organic community by increasing the amount of primary research on which decisions could be based
- Increasing the amount of research being done related to organic agriculture. Today, the research community may not always be aware of the research needs of organic producers and handlers. Awareness could allow for USDA funding of primary research in these top priority areas and provide support for researchers submitting grants requests these research areas.
- Encouraging publication of field-level work. We know that organic farmers are continually ‘researching’ new production methods at the farm level but often these ideas are discussed at farm conferences and not further disseminated. Our hope is that a list of ‘top needs’ could encourage certifiers, regulators and other stakeholders to support farmers in their research and publication of their research.
Process Framework

In the Materials committee discussions the following process framework was developed:

1. The Materials Committee will collect research topics from public comment, NOP and NOSB committees on an on-going basis. Specifically, the Materials committee should review research topic needs after every NOSB meeting to ensure that public comment and NOSB discussion on new research needs are added to a ‘running’ list.

2. Research topics will be kept by the committee on an all-inclusive ‘running’ list. The list would include a description of the research and how the research needs to apply in an organic context.

3. On an annual basis, the committee will review the list and based on the criteria discussed below recommend the top research priorities for NOSB review, discussion, change and approval. We envision that the top priorities will be about five topics but discussed that a ‘hard’ number was not needed or even desirable. Additionally, we do not envision ranking the top priorities. Our goal would be to have a short list of the ‘select few’ research topics for which the NOSB believes research would have the largest long-term impact on growth and integrity of organic agriculture.

4. On an annual basis, the NOSB will review the list and make any needed additions, amendments and deletions from the top priorities list. The list will be published as an NOSB recommendation that the items on it be a focus for research needs. It is not our intention that the NOP would have to take action on the list beyond making it available for public awareness.

The criteria for prioritization are focused on selecting the few ‘big ideas’ that the NOSB believes will have the largest long-term impact on growth and integrity of organic agriculture. The criteria would be research topics that are:

- Persistent and chronic (i.e., perennial topics of debate and need)
- Challenging
- Controversial (i.e., topics on which there are widely differing perspectives or for which there have been close NOSB votes)
- Nebulous (i.e., the research need is hard to identify but the organic agriculture need is clear). For example, improved methods of weed control.
- Lacking in primary research. That is, topics for which there is no active research being conducted.

Although we hope that the research will eventually address the problems on the list, we also realize that solutions will not be found immediately. If properly used, the ‘select few’ research topics should not change drastically from year to year but should reflect long-standing, difficult to address needs within the industry. Over a longer timeframe, topics will drop off and be replaced with others. The committee notes that while the ‘running’ list of research needs may be long, the goal of
prioritization will be to select only a few ‘big ideas’ that will have the largest impact for the industry. Therefore, many worthwhile research needs will not be prioritized.

As the committee discussed this framework there was some discussion on how these research needs worked with material Technical Reviews. It was clear to the committee that duplicating or replicating Technical Reviews was not the intention. Rather, the Technical Reviews can highlight areas where primary research is lacking--for example, research into eliminating barriers to commercial availability (e.g., alternatives to de-oil soy lecithin) or research into viable, available alternatives for current materials or methods. No topic on the list should be a review of existing research. For that, Technical Reviews are the best course.

Requested Input from NOSB, NOP and Public Comment

1. What additions or changes would you make to the process for collecting and maintaining the list of research needs?

2. Are there other criteria that you would want the board to consider when prioritizing research topics? What research needs would our proposed criteria have ‘missed’ without the addition of additional criteria?

3. The committee proposes that the top priorities be reviewed on an annual basis. What benefits or drawbacks exist for extending or shortening this review time? Specifically with respect to research, funding and topic awareness time frames?

4. Is the collection, prioritization and publication of research needs an topic in which the NOSB should engage?

Committee Vote:

The Materials Committee moves to accept this document and present it for full board discussion at the fall 2011 NOSB meeting:

Moved: Katrina Heinze  Second: Tina Ellor

Yes:  6  No:  0  Abstain:  0  Absent:  0  Recuse:  0