October 31, 1995

The initial session of the National Organic Standards Board (NOSB) meeting was called to order at 8:09 a.m. by Chairperson Bob Anderson.

Members in attendance were: Tom Stoneback, Craig Weakley, Dean Eppley, Don Kinsman, Merrill Clark, Michael Sligh, Bob Anderson, Gene Kahn, K. Chandler, Rod Crossley, Fred Kirschenmann, Kathleen Merrigan, and Margaret Wittenberg. Participating at this meeting as the certifying agency advisor to the NOSB was Tom Tomas of Farm Verified Organic, Inc.

National Organic Program staff members present from USDA were: Michael Hankin, D. Ted Rogers, Michael Johnson, Toni Strother, and Grace Gershuny. Also in attendance from the USDA was Eileen Stommen, Director of the Transportation and Marketing Division, Agricultural Marketing Service (AMS).

The Technical Advisory Panel Coordinator present at the start of the meeting was Zea Sonnabend. John Brown was expected to arrive later, along with advisors Rich Theuer, Lynn Coody, Brian Baker, and Bill Wolf.

Eileen Stommen opened the initial session by commenting on the aggressive agenda set forth by the NOSB. She thanked the Board for its work and noted that the recommendation process is winding down simultaneously with a decline in Federal Advisory Committee funding. She also pointed out that there is still much work to do, and the USDA is committed to a timely proposed rule in 1996. She closed by again thanking the NOSB for its commitment and dedication to bringing together everyone in the organic industry.

On behalf of the NOSB and the USDA, Bob Anderson recognized the retiring Board members and presented them with mementos. Those Board members included: Merrill Clark, Don Kinsman, Tom Stoneback, and Craig Weakley. Michael Sligh was recognized for his service (1992-1995) as the first Chairperson of the NOSB.

Eileen Stommen followed with a presentation to Bob Anderson for his dedication and leadership as the previous year’s chairperson.

Brent Wiseman, Organic Programs Director for the Texas Department of Agriculture (TDA), thanked the USDA and NOSB for selecting Austin, Texas, as the host site for this meeting. The Texas Department of Agriculture Deputy Commissioner, Larry Soward, followed with some
Mr. Soward discussed the history and current status of the TDA Certification Program and noted the lack of organic livestock standards both in Texas and nationally.

USDA Staff Report - Operations Manager Michael Hankin proceeded with an update on the National Program activities and program direction, explaining that Program Leader Harold Ricker was in Costa Rica at the Bio Fair and wished very much that he could be present at this meeting. Hankin first reviewed the funding status for FY '95 and briefly discussed the projected program funding for FY '96. It is expected that the NOP will retain the same level of funding as FY '95 ($500,000), along with a cost of living adjustment ($100,000).

He also reported that there will be a five thousand-dollar reduction in funding for the Board, from forty-five thousand to forty thousand dollars. It is expected that next June would be the first possible meeting date in calendar year 1996. As a note, the nominations for new Board members are officially closed. The Department received seventeen nominations for the five positions.

Hankin followed with information about a number of staffing changes in both the Department and in the Transportation and Marketing Division (TMD). Former Acting Assistant Secretary for Marketing and Regulatory Programs, Patricia Jensen, was replaced by Michael Dunn; TMD has a new director Eileen Stommes, and deputy director, Paul Kepler. TMD also has completed an internal reorganization, and the NOP has acquired an additional staff member, Toni Strother. Toni will be assisting the staff in many areas, including database management.

Next, Hankin reported on the status of the proposed rule. The second draft of the Accreditation portion of the program was recently delivered to the Office of General Counsel (OGC). He then went on to announce that the accreditation program will be published along with the other sections of the program. In closing, Hankin urged the Board to make recommendations on the materials that are up for review, and to avoid tabling materials. He went on to encourage the Board to utilize the materials experts at the meeting (i.e., Zea Sonnabend, Lynn Coody, Brian Baker, Tom Tomas, John Brown, and Rich Theuer) to supplement data gaps in the review notebooks.

**LIVESTOCK COMMITTEE REPORT:**

Fred Kirschmann began the livestock committee's session by calling attention to Paul Thompson's deliberations on the "Spirit of the Soil" and reminded everyone of the overall objectives of the Board's mission. He also noted that the following committee documents were up for Board approval: 1) The Use of Antibiotics in Organic Livestock Production; 2) The Use of Parasiticides in Organic Livestock Production; 3) TAP Review of Antibiotics and Parasiticides in Organic Livestock Production; 4) TAP Review of Vitamins and Minerals in Organic Livestock Production; 5) TAP Review of Innoculants and Vaccines in Organic Livestock Production; 6) The Use of Innoculants and Vaccines in Organic Livestock Production; and 7) Revisions to the NOSB Livestock Addendums for Organic Livestock Production.
The Use of Antibiotics in Organic Livestock Production & The Use of Parasiticides in Organic Livestock Production.

(One combined vote was taken for both documents.) Merrill Clark noted that many persons had expressed the opinion to the committee that parasiticides and antibiotics were not needed. Fred followed by stating that the purpose of this recommendation is to present a laying hen recommendation that is consistent with the NOSB’s dairy recommendation. Gene Kahn moved and it was seconded by Rod Crossley to accept the document as a Board Final Recommendation (BFR). Vote: Yes - 10, Opposed - 3. Motion carried.

TAP Review of Antibiotics and Parasiticides in Livestock Production.

Prior to a motion to accept this document as a BFR, Merrill presented the idea that antibiotics and parasiticides should be individually reviewed within the Technical Advisory Panel process. Bob Anderson followed with two recommended changes to the document prior to the motion for approval - a) delete at line 39 “most likely to be” and b) add a two-year review clause to the document. There were no objections to the changes and Rod Crossley moved to accept the document as amended as a BFR. It was seconded by Gene Kahn.

Vote: Yes - 11, Opposed - 1, Absent -1. Motion carried.

TAP Review of Synthetic Vitamins and Minerals in Livestock Production.

Merrill pointed out that the statement of principle that was used as a preface in the two previous documents was missing. Gene spoke to her concern, noting that lines 30-36 did in fact provide the principle for the committee’s thinking. Prior to the motion for approval, Bob once again offered the addition of a “two year review clause” and also recommended amending lines 28-29 to read “Producers often may not be able to control the quantity of vitamins and minerals naturally occurring in feedstuffs.” There were no objections. Mike Hankin noted that a list of those supplements (which are to be used in the program) are published in the Federal Register and are all Generally Recognized as Safe (GRAS) by the FDA. Gene moved and it was seconded by Tom Stoneback to accept the document as amended as a BFR.

Vote: Yes - 11, Opposed - 1, Absent - 1. Motion carried.

TAP Review of Innoculants and Vaccines in Livestock Production.

Bob Anderson recommended the following changes: a) delete “unrestricted” in line 12; b) substitute "deferring initial TAP review of innoculants and vaccines" for “forsaking TAP review of innoculants and vaccines”; and c) add a two-year review clause. There was unanimous agreement on the changes. Gene moved and Dean Eppley seconded a motion to accept the document as amended as a BFR. Vote: Yes - 12, Opposed - 0, Absent 1.

The Use of Innoculants and Vaccines.

The following changes were accepted as amendments to the document prior to the motion for
approval: a) Line 10 - delete the word “unrestricted” and b) Line 16 - Change the word “is” to “may be.” Rod then followed with a motion to accept the document as amended. K. Chandler seconded the motion. Vote: Motion carried unanimously to accept the document as a BFR.

**Organic Livestock Production.** (This recommendation is a compilation of changes to be made in the Organic Livestock Production Standards section of the NOSB Final Recommendations adopted June 1-4, 1994 in Santa Fe, New Mexico.) The changes reflect new language for the a) veterinarian-client relationship and b) the removal of “growth promoters” from the document. Craig Weakley moved and it was seconded by Gene to accept the recommendation as amendments to the BFR approved in June 1994. Vote: Motion carried unanimously.

BREAK.

**PROCESSING, HANDLING, AND LABELING COMMITTEE:**

Following the break, the Board resumed business at 10:20 a.m. to discuss the PHL committee’s new recommendations to the full Board. The following documents up for approval included:

**General Organic Food Labeling Standards.**

It was noted that approximately 90% of the General Organic Food Labeling Standards have already been passed as NOSB Final Recommendations. The additions represent reiterations and clarification; all information listed in the document has been reviewed for consistency with the OFPA. Gene moved and it was seconded by Bob to accept the document as and addition to the existing Board final recommendations. Vote: Yes - 10, Opposed - 1, Absent - 2. Motion carried.

**Allowable Methods of Oil Extraction.**

Michael Sligh moved and it was seconded by Dean to accept the document as a Board final recommendation. Discussion followed, and Mike Hankin commented on the language in lines 34-37 regarding hexane. He went on to ask if it was the intent of the committee to prohibit hexane use in the non-organic ingredient components of organic foods and foods “made with organic ingredients,” as the language seemed to imply. Craig followed by saying that this is the committee’s intent. Vote: Motion carried unanimously.

**Requirements for Handler Certification.**

There were a number of proposed changes to the handler certification document. They represent
both additions and deletions to an NOSB final recommendation, adopted on June 4, 1994, in
Santa Fe, New Mexico. The proposed changes are as follows: a) Line 27 - delete the word
“should”; b) Line 27 - add after the word ‘integrity’ -- “and the audit trail”; c) Line 29 - delete
the word “distributors”; d) Line 30 - add after the word ‘retailers’ -- “and distributors who
process [OFPA Section 2103 - see below] and substantially transform repack or relabel”;
e) Line 56 - add footnote number 1 - “OFPA Section 2103 Definitions (17) Processing. The term
“processing” means cooking, baking, heating, drying, mixing, grinding, churning, separating,
extracting, cutting, fermenting, eviscerating, preserving, dehydrating, freezing, or otherwise
manufacturing, and includes the packaging, canning, jarring, or otherwise enclosing food in a
container.”; and f) Line 80 - add after ‘under’ -- “OFPA only if they both take title to the
organic products and substantially transform, or process, or repack or relabel these
products.”

During the document discussion, Michael Sligh commented that there should be some language
in the definitions to deal with the effect of this recommendation on co-ops. Craig and Margaret
responded by noting that the committee will address the issue of co-ops and retailing for the next
meeting. Rod moved and Gene seconded a motion to accept the additions and deletions as noted
in the document. Vote: Motion carried unanimously.

Addition of Synthetic Magnesium Chloride to National List.

Rod began the discussion by commenting on the industry’s mislabeling of magnesium chloride
as “nigari”. Margaret Wittenberg went on to reiterate that most of the industry is using synthetic
magnesium chloride. Just prior to a motion for Board approval, Ted Rogers noted that the FDA
does not recognize “nigari” as an ingredient; therefore, the use of the word is prohibited. Kahn
noted that lines 44-48 should not have been included. Rod moved and Gene seconded the
motion to accept the document and he also recommended the addition of the word “be” after the
word ‘should’. Vote: Yes - 12, Opposed - 0, Abstain - 1. Motion carried.

Use of Nutrient Supplementation in Organic Foods.

Michael Sligh began the discussion by asking for clarification on what “independent professional
organizations” are. Rod noted they have no commercial interest in the matter of which vitamins
or minerals are used in foods. Merrill then expressed her concern over the addition of accessory
nutrients, as well as the categorical acceptance of a large group of vitamins and minerals. Craig
clarified that the PHLC was not recommending that vitamins and minerals for human
consumption be exempted from the National List process. Gene moved and it was seconded by
Tom to accept the document as a BFR with two small changes which included a) Line 16 - delete
the word ‘must’ and replace it with “may”; and b) Line 32 - add “and fortification” after the
word ‘enrichment’. Vote: Yes - 12, Opposed - 1. Motion carried.
Use of Natural Flavors in Organic Foods (Proposal #2).

It was noted that the original draft of this document went out for public comment and has been responded to. It was also stated that the intent of this document is to prohibit propylene glycol and artificial preservatives. This document differs from the previously submitted Committee recommendation in that this recommendation clearly delineates separate guidelines for “organic foods” and “foods made with organic ingredients”. Gene went on to describe his research on flavor houses, and his findings show that there are no flavor houses currently producing organic natural flavors, but one is starting to carry some with no synthetic carriers, solvents, or preservatives. He cited competitive market forces in the industry as future incentive for the production of organic natural flavors. Rod moved and it was seconded by Gene to accept the revised recommendation as a BFR. Vote: Motion carried unanimously.

Incidental Food Additives in Organic Foods.

Tom Stoneback inquired as to whether or not there were trade secret issues at hand when discussing processing aids. Rod responded by stating that the substances in question can be disclosed to a certifier and that label declaration is not the answer. Merrill followed with comments acknowledging the applicability of this recommendation to “foods made with organic ingredients,” but contested applying it to “organic foods” as well. Craig went on to review the committee’s longstanding debates over this issue and the need to bring it to resolution. Tom moved and it was seconded by K. Chandler to accept the recommendation as a BFR. Vote: Yes - 9, Opposed - 3, Abstain - 1. Motion carried.

LUNCH BREAK.

The Public Input session followed the lunch break. The meeting was adjourned for the day at 5:30 p.m. after the public input session.
November 1, 1995

CROPS COMMITTEE REPORT:

The meeting was called to order at 8:00 a.m. by chairperson Bob Anderson.
Members in attendance were: Tom Stoneback, Gene Kahn, Jay Friedman, Rod Crossley, Craig
Weakley, Dean Eppeley, Don Kinsman, Merrill Clark, Michael Sligh, Bob Anderson, Margaret
Wittenberg, K. Chandler, Fred Kirschenmann, and Kathleen Merrigan. Participating as the
certifying agent advisor to the NOSB was Tom Tomas of Farm Verified Organic.

Staff members present from USDA were: Michael Hankin, D. Ted Rogers, Toni Strother, Grace
Gershuny, and Michael Johnson.

Technical Advisory Panel Coordinators present were: Zea Sonnabend, John Brown, and Rich
Theuer as facilitator.

The following Crops Committee documents were up for discussion and approval at this session:
1) Phase-Out of Chilean Nitrate; 2) Banana Planting Stock; 3) Emergency Spray Exception;
4) Ban on Petitioned Materials; 5) Definitions and Interpretations; and 6) NOSB Materials
Review Criteria.

Phase-Out of Chilean Nitrate.

Grace Gershuny briefly discussed the use of chilean nitrate in an organically managed system,
noting that its use would still be within the context of the NOP standards. She also made
reference to chilean nitrate and international standards -- it is not the intent of the NOP to make
our standards identical to other country’s standards. In fact, the USDA will work towards
harmonization and agreements where organic principles are the foundation and we will need to
acknowledge minor differences. Michael Sligh added that a phase-out will increase the use of
chilean nitrate and not decrease it. K. Chandler followed with his support for the allowance of
chilean nitrate, mindful of its minor use importance to some organic farmers. Jay expressed his
non-support, citing the possible increase in use as Sligh mentioned earlier in his comments.
Gene then cited that the USDA’s Organic Farm Plan scrutiny will deal with its overuse and
abuse. K. Chandler moved and it was seconded by Bob Anderson, who after agreement from the
Board, added a two-year review clause. The annotation would limit use to 20% of the total
nitrogen supplied to a crop. Vote: Yes - 8, Opposed - 6. Motion fails.

In a separate discussion, the Board again discussed Chilean Nitrate use and subsequently passed
the following proposal regarding chilean nitrate; Vote: Yes - 13, Opposed - 1.
Chilean Nitrate Special Use Guidelines

The use of Chilean Nitrate (16-0-0) in organic crop production is limited to not more than 20 percent of total nitrogen supplied to a crop. The producer’s Farm Plan shall contain specific provisions and strategies designed to substantially reduce the use of Chilean Nitrate over time. The amount and timing of these reductions will be consistent with documented site specific constraints. The Farm Plan will seek to explore each and every alternative to the routine use of Chilean Nitrate in the farming system. These alternatives include, but are not limited to, composting, improvement of compost, leguminous cover crops, interplanting, rotations, microbial enhancements, animal manures, varietal selections, planting date alterations, and reducing amounts of applied supplemental nitrogen. The timing and efficiency of Chilean Nitrate application shall be optimized and documented in the Farm Plan. Certifiers will monitor progress in the reduction of Chilean Nitrate use and will decertify farmers that develop long term dependence on this material. Strong farmer commitment, aggressive action, and measurable results are all necessary elements of this special use of Chilean Nitrate.

This policy shall be reviewed within two years.

Banana Planting Stock.

Michael Sligh commented on the implication of large scale tissue culture use, and its relationship to a lack of genetic diversity (pressures of identical crops on the ecosystem). Bob moved and it was seconded by Rod to accept the banana document as a BFR after making a minor correction to line 12: change ‘seed’ to “sucker”.

Vote: Yes - 13, Opposed - 1. Motion carried.

Emergency Spray Exception.

Michael Sligh moved and it was seconded by Dean to accept this document as written. No discussion ensued. Vote: Motion carried unanimously.

Ban on Petitioned Materials.

Rod Crossley moved and it was seconded by Craig Weakley to accept this document. It was noted that the document had not previously been distributed to the NOSB or USDA staff. The substances listed on the document were: glyphosate, thiram, benomyl, captan, and methoxychlor. During the discussion, Ted Rogers explained that these petitioned materials were standards issues, rather than a national list issue, in that their use is prohibited on the farm, but that seed purchased may have been treated with one of these substances. Jay Friedman also expressed concern over the legality of the recommendation, but supports its underlying principle. Kahn explained that by approving this document, the NOSB is deciding without a TAP review, but its knowledge of a material, that it does not meet the seventh criteria in Section 2119(m) of the OFPA (compatibility) and therefore does not need to undergo a TAP review to evaluate its
environmental impact. Vote: Yes - 13, Opposed - 0, Absent - 1. Motion carried unanimously.

260 Definitions and Interpretations.

261 (This document includes a new section which defines a synthetic analogue, and refines several
definitions that were on the previous version of this document.) Fred K. moved and it was
262 seconded by Rod to accept this document as a BFR. Prior to a vote, there were several
263 amendments added to the document. Michael Sligh proposed two technical amendments, both
264 regarding rRNA and rDNA: a) Line 71-72 should read as follows: “Recombinant RNA & DNA
265 Techniques. Techniques that artificially break apart and recombine DNA and RNA molecules
266 with the intent or altering genetic instructions,” and b) Line 37 - add after ‘recombinant DNA’ --
267 “and RNA techniques”. Kathleen then recommended the addition of “and must contain only
268 dead organisms.” after the word ‘organism’ in line 48. Vote: Motion carried unanimously.
269 Needing clarification of lines 90-95, Jay received the response from Grace that this new
270 definition will serve as an additional reference and decision making tool. The discussion
271 concluded as Craig moved and it was seconded by Rod to add at the end of the sentence on line
272 92: “provided that the synthetic material is on the National List.” Vote: Motion carried
273 unanimously.

275 NOSB Materials Review Criteria.

Grace led the discussion for this document, and noted that it was established to expand the intent
276 of the OFPA criteria listed in section 2119(m)(7), “compatibility with a system of sustainable
277 agriculture”. She noted that this document would be helpful to the staff in providing guidance
278 for classifying petitioned materials that were questionable as to whether they fit within the
279 context of the national program. Grace went on to explain that the document was late in its
280 evolution, but should nonetheless assist the Board in its materials review and evaluation. Fred
281 moved and it was seconded by Kathleen to accept the document, deleting the following in lines
282 48-49: “Example: pBO. Also, rDNA produced biofungicides might get serious consideration
283 here if they are a good alternative for copper and don’t violate criterion #1 above.” Vote: Yes -
284 10, Opposed - 3, Absent 1. Motion carried. Following acceptance of the document, Jay moved
285 and it was seconded by Merrill to add the following amendment at line 10: “However, no
286 material may be consistent with organic agriculture and appear on the National List in the
287 absence of a strong factual showing in scientific criteria.”
288 Vote: Yes - 11, Opposed - 0, Abstain - 2, Absent - 1. Motion carried.

290 Following the document discussions, Tom Stoneback briefed the Board on sewage sludge and
291 bio-solids. Fred urged that the material be moved forward to the TAP and that information
292 collection should continue. The Board was in agreement with Fred’s suggestion.

293 Discussion Paper: Organic Principles, Standards Development, and Farm Plan
294 Requirements. This paper was prepared by the National Organic Program staff at the request of
295 the Crops Committee, to help clarify how they are looking at the criterion of progressive
improvement as it relates to anticipated NOP Standards and Organic Farm Plan provisions. During the discussion, Craig noted that the use of the word “Tolerated” seems to have a negative connotation and use of the word “Restricted” appears to be a better choice and add more clarity to its meaning. Michael Sligh recommended that the NOP take a look at the Texas ten-point evaluation system. Fred agreed to bring forth a proposal to develop a taskforce to add to the discussion paper’s high points.

**ACCREDITATION COMMITTEE DISCUSSION:**

**Use of Private Seals.**

Fred Kirschenmann led the discussion on the use of private seals. He explained why the private certifiers want this particular option; Michael Sligh expressed his support for the document. Jay dissented, and spoke to the additional confusion that this will cause in a national program. He also noted that there were a number of unresolved questions in the document and pointed out that there had been no public input on the document. Gene rejected the idea of “seal use” to promote producer achievements and production abilities, and the massive consumer confusion that this would cause. There was additional comment on the paper, and then it was brought to a vote - 5 aye / 6 opposed / 3 abstentions. The motion failed.

In a separate discussion, the issue of private seal usage was revisited on Thursday, November 2. Kathleen began by reading a new proposal, and Fred continued to assert the need for certifier seal usage, because much time and energy have been spent on their development and market recognition. He cited the ability of seals to be indicative of other claims related to practices and standards, e.g., safe for the chemically sensitive. Bob concurred on the right to continue seal usage, but noted that they should not serve as barriers to trade nor should they create further market confusion. Rod agreed as well, but rejected the notion of making superior claims with seals. Fred insisted the issue was differentiation, and that certifiers should secede if this provision was denied. Gene also agreed with allowing private seal usage, but objected to superior claim implications associated with their use. Kathleen defended the “chemically sensitive” example as being above and beyond the organic claim; Tom Stoneback questioned its place or applicability to a national organic program. As the discussion came to a close, Rod moved and it was seconded by Craig to accept the new seals proposal as amended. Vote: Yes - 12, Opposed - 1. Motion carried unanimously. Listed below is the proposal as amended and approved.

**SEALS**

(A) A certifying agent may permit the use of its seal, logo, or trademark on product labels to:

(a) denote affiliation with or membership in the applicable private certification program or organization;

(b) indicate the state or region of origin of the product; and/or (c) designate claims on the
part of the producer, processor, or product not covered under Sections XXX (organic production standards and National List).

(B) A seal, logo, or trademark shall not be used:

(1) to restrict trade or prevent procedures or processors from being certified in accordance with the Act;

(2) to imply that products so labeled are superior to other products produced in accordance with Sections XXX (organic production standards and National List);

(3) to imply USDA accreditation of certifying activities for claims not covered under Sections XXX (organic production standards and National List); and shall not be

(4) required to be displayed on any product offered for sale as “organic” or “organically produced” as a condition of certification.

Next, a document, developed by the Organic Certifiers Caucus organization, was circulated which suggested a new approach for selecting future NOSB meeting certifier representatives. The document will be considered by the Accreditation Committee before recommending future temporary certifier positions to the Executive Committee.

**Code of Ethics.**

Fred then moved on to the Code of Ethics document, but noted that he did not expect a vote at this time on it. He subsequently led a paragraph by paragraph discussion and met significant opposition to the concept of such a document. Jay moved and it was seconded by Merrill to table the document and to review it again later in the week. The NOSB consented in the majority.

**INTERNATIONAL COMMITTEE:**

**Fumigation Tables**

In response to inquiries regarding the fumigation and subsequent status of organically grown fresh fruit and vegetables that are imported into the United States, the NOP, in consultation with the Plant Protection and Quarantine (PPQ) division of the Animal and Plant Health Inspection Service (APHIS), developed a set of “fumigation” tables. Michael Johnson briefly discussed the tables and answered several questions posed by the NOSB and other meeting attendees. There is a copy of the cover letter and tables included in the minutes.¹

¹See Attachment 2, entitled *Fumigation Tables.*
Materials Discussion

As an introduction to the materials review session, Kathleen commented on the recent request to change an NOSB member’s vote registered during the NOSB meeting in Orlando in April 1995. Craig suggested that at the close of each vote, a final tally should be announced so as to ensure accuracy. All Board members were in agreement with this suggestion and further determined that the burden was on the NOSB member to ensure the accuracy of votes; vote tallies would be official as recorded at the end of the voting day. Bob went on to review the Materials Oversight Working Group conclusions and the NOSB voting procedures and noted that the synthetic/non-synthetic decision will be a simple majority and abstentions are counted as a “no” vote, absences don’t count toward the majority, and 2/3 of the NOSB must be present to conduct a vote.

The second round of the NOSB materials review began with the review of processing materials. The round was coordinated by former NOSB Processing committee chairperson, Rich Theuer, Ph.D. Dr. Theuer was also a leading reviewer for a number of the processing materials.

The following notes represent the NOSB materials voting process that occurred during the remainder of the week. The notes detail the actual votes on each material and some general comments and discussion notes. They are listed in the order in which they appear in the document “Summary of NOSB Recommendations for Materials Considered at Austin, Texas, November 1995” that was distributed to the persons on the public mailing list in January 1996.

Processing Materials

Calcium Carbonate - Reviewed by Rich Theuer, Bob Durst, and Joe Montecalvo.
Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous.

Cornstarch (Native) - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous. Discussion: Bob Anderson noted and it was agreed upon by the Board that they were only voting on native and unmodified starches.

Cultures, Dairy - Reviewed by Rich Theuer.
Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous. Annotation: Bacteria may not be a product of rDNA technology.

Gums (Water Extracted Only - Arabic, guar, locust bean, and carob bean) - Reviewed by Joe Montecalvo and Rich Theuer. Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous. Annotation: Water extracted only.
Discussion: Bob Anderson made a motion and it was seconded by Rod Crossley to include the above listed annotation for gums. Vote: 12 aye / 2 opposed. Motion carried.

Yeast, Autolysate - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote: 13 aye / 0 opposed / 1 abstention.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 13 aye / 1 opposed. Annotation: Yeast (used for source) that is a product of rDNA technology is prohibited. Discussion: Merrill expressed her belief that this material is a form of MSG in disguise. Rich followed by indicating that this material is a natural hydrolysate, and not a concentrated synthetic, as are MSG’s.

Yeast, Bakers - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote: 13 aye / 0 opposed / 1 abstention.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 12 aye / 1 opposed / 1 abstention.
Annotation: Yeast (used for source) that is a product of rDNA technology is prohibited.

Yeast, Brewers - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote: 12 aye / 0 opposed / 2 abstentions.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous. Annotation: Yeast (used for source) that is a product of rDNA technology is prohibited.

Yeast, Nutritional - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 13 aye / 1 opposed. Annotation: Yeast (used for source) that is a product of rDNA technology is prohibited. Growth on petrochemical substrates and sulfite waste liquor is also prohibited.

Yeast, Smoked - Reviewed by Rich Theuer and Joe Montecalvo.
Determined to be non-synthetic; Vote: 13 aye / 0 opposed / 1 abstention.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 11 aye / 3 opposed. Annotation: Yeast (used for source) that is a product of rDNA technology is prohibited. Growth on petrochemical substrates and sulfite waste liquor is also prohibited. The handler must document in the Organic Handling Plan that the smoke flavoring used is produced using a non-synthetic process that does not use synthetic processing aids or additives.

Calcium Citrate - Reviewed by Mark Schwartz and Joe Montecalvo.
Determined to be synthetic; Vote: 13 aye / 0 opposed, 1 absent.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 11 aye / 1 opposed / 1 absent / 1 abstention.

**Calcium Phosphates (Di, Tri, Mono)** - Reviewed by Mary Mulry, Rich Theuer, and Joe Montecalvo. Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic food processing;

Vote: 13 aye / 1 opposed. Discussion: This material is used in baking powder, fortification, for yeast growth, and a firming agent for yogurt. Craig noted that the Handling Plan will discover other uses for the material that are not currently known.

**Carbon Dioxide (Non-synthetic)** - Reviewed by Joe Montecalvo, Rich Theuer, Mary Mulry, and Bob Durst. Determined to be non-synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic food processing;

Vote - Unanimous.

**Carbon Dioxide (Synthetic)** - Reviewed by Joe Montecalvo, Rich Theuer, Mary Mulry, and Bob Durst. Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic food processing;

Vote: 13 aye / 1 opposed. *(The non-synthetic form is preferable to the synthetic.)*

**Chlorine Bleach (Calcium hypochlorite, sodium hypochlorite, chlorine dioxide)** -

Reviewed by Joe Montecalvo, Marta Engel, Rich Theuer, Walter Jeffery, and Chris Milne.

Determined to be synthetic; Vote - Unanimous.

Annotation: Allowed for disinfecting and sanitizing food contact surfaces. Residual chlorine levels for washwater in direct crop or food contact and in flush water from cleaning irrigation systems that is applied to crops or fields cannot exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (currently 4mg/L expressed as Cl₂). This substance is to be reviewed again in two years.

**Ethylene** - Reviewed by Joe Montecalvo, Rich Theuer, and Chris Milne.

Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic food processing;

Vote: 13 aye / 1 opposed. Annotation: for use as a ripening agent for bananas only.

Discussion: Craig moved and it was seconded by Michael Sligh to restrict its use as a ripening agent for bananas only. Fred noted that FVO does allow its use to prevent other problems and is actively seeking an alternative, but that there is no alternative currently. Merrill questioned the nutritional properties of foods that are ripened by a blast of ethylene gas. Gene noted that it is essential for controlled ripening over long distances. Michael Sligh moved and it was seconded by Kathleen to phase ethylene out over a five-year period. Vote: 3 aye / 9 opposed / 2 abstentions. Motion failed.

**Glycerin** - Reviewed by Joe Montecalvo, Rich Theuer, and Mary Mulry.

Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous. Annotation: Must be produced by hydrolysis of fats and oils.

**Hydrogen Peroxide** - Reviewed by Vivian Purdy and Amigo Cantisano.
Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in **organic food processing** and **organic crop production**. Vote - Unanimous (1 absent).

**Magnesium Chloride (non-synthetic)** - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be non-synthetic; Vote - Unanimous.
The NOSB’s decision is to prohibit the use of non-synthetic magnesium chloride (from sea water) in organic foods (95% and above); Vote: 12 aye / 2 opposed. The NOSB’s decision is also to prohibit the use of non-synthetic magnesium chloride (from sea water) in foods made with organic ingredients (50%-95%); Vote: 12 aye / 2 opposed.

**Magnesium Chloride (Synthetic)** - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow synthetic magnesium chloride for use in organic food processing; Vote: 13 aye / 1 opposed.
Annotation: Allowable only in the synthetic form if extracted from sea water. Magnesium chloride produced by synthetic processes (e.g., hydrochloric acid reaction) is not allowable.
Unrefined **non-synthetic magnesium chloride (nigari)** is not recognized by FDA as an allowed food ingredient.

**Nutrient Vitamins and Minerals** - Reviewed by Rich Theuer, Mary Mulry, Joe Montecalvo.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 10 aye / 4 opposed. Annotation: Accepted for use in organic foods for enrichment or fortification when required by regulation or recommended by an independent professional organization.

**Ozone** - Reviewed by Rich Theuer and Joe Montecalvo.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous.

**Potassium Hydroxide** - Reviewed by Rich Theuer and Joe Montecalvo.
Determined to be synthetic; Vote: 10 aye / 0 opposed / 4 absent.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 9 aye / 2 opposed / 1 abstention / 2 absent.
Annotation: Prohibited for use in lye peeling of fruits and vegetables and where non-synthetic sodium carbonate is an acceptable substitute.
Tartaric Acid (Made from grape wine)
Determined to be non-synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in organic food processing;
Vote - Unanimous (1 absent).

Tartaric Acid (Made from malic acid)
Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 10 aye / 4 opposed.

Potassium Acid Tartrate (or Potassium Tartrate made from tartaric acid) - Reviewed by
Rich Theuer and Joe Montecalvo. Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 12 aye / 1 opposed / 1 absent. Discussion: Sligh questioned the essentialness of this
material. Craig moved and it was seconded by Merrill to accept the following Annotation: Shall
be derived from tartaric acid derived from grapes. Vote: 6 aye / 6 opposed / 1 abstention / 1
absent. The motion failed, and there is no annotation for this material.

Sodium Phosphates - Reviewed by Bob Durst, Rich Theuer, and Joe Montecalvo.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 12 aye / 2 opposed. Discussion: Jay and Merrill both expressed the opinion that sodium
phosphates should be annotated. Fred moved to annotate, limiting its use as a boiler water
additive. Before there was a vote, Jay withdrew his motion and moved to table --
Vote: 4 aye / 9 opposed / 1 absent. Motion failed. Michael Sligh then followed with a motion
for the annotation: "Use restricted to dairy foods". Vote: 12 aye / 2 opposed. Motion carried.

Tocopherols - Reviewed by Joe Montecalvo, Rich Theuer, and Mary Mulry.
Determined to be synthetic; Vote: 13 aye / 1 opposed.
The NOSB’s decision is to allow this material for use in organic food processing;
Vote: 12 aye / 2 opposed. Annotation: Must be derived from vegetable oil when rosemary
extracts are not a suitable alternative.

Magnesium Stearate - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be synthetic; Vote - Unanimous.
This material is prohibited for use in organic food processing (95% and above);
Vote: 4 aye / 9 opposed / 1 abstention. However, the NOSB does allow for the use of this
material in foods “made with organic ingredients”. Vote: 12 aye / 2 opposed.

Ammonium Phosphate - Reviewed by Joe Montecalvo, Rich Theuer, Bob Durst.
Determined to be synthetic; Vote - Unanimous.
This material is prohibited for use in organic food processing (95% and above).
Vote: 0 aye / 13 opposed / 1 absent. This material is also prohibited for foods labeled as “made
with organic ingredients” (50% - 95%). Vote: 6 aye / 3 opposed / 5 abstentions.
Discussion: There was also a motion to reconsider this material, allowing it for use as a yeast
food in wine making. Vote: 7 aye / 4 opposed / 3 abstentions. Motion failed.

Colloidal Silica - Reviewed by Joe Montecalvo, Rich Theuer, and Bob Durst.
Determined to be synthetic; Vote: 12 aye / 0 opposed / 2 absent.
This material is prohibited for use in organic food processing (95% and above).
Vote: 1 aye / 11 opposed / 2 absent. This material is also prohibited for foods labeled as “made
with organic ingredients” (50% - 95%). Vote: 3 aye / 9 opposed / 2 absent.

Nisin - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be synthetic; Vote: 10 aye / 3 opposed. This material is prohibited for use in
organic food processing (95% and above). Vote - Unanimous. This material is also prohibited
for use in foods labeled as “made with organic ingredients” (50% - 95%). Vote - Unanimous.

Sodium Tartrate - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be synthetic; Vote: 13 aye / 0 opposed / 1 absent. This material is prohibited for
use in organic food processing (95% and above). Vote: 8 aye / 2 opposed / 3 abstention /
1 absent. This material is also prohibited for use in foods labeled as “made with organic
ingredients” (50% - 95%). Vote - Unanimous. Discussion: Rich noted that citric acid is a
suitable non-synthetic alternative for this material. It was also pointed out that this material is
used extensively in wine production.

Sorbic Acid - Reviewed by Joe Montecalvo and Rich Theuer.
Determined to be synthetic; Vote - Unanimous. This material is prohibited for use in organic
food processing (95% and above). Vote - Unanimous. This material is also prohibited for use in
foods labeled as “made with organic ingredients” (50% - 95%). Vote - Unanimous.
Discussion: Margaret Wittenberg mentioned that this material is used in cheese making and is
also used in dried fruit.

Baking Powder (Aluminum-Free) - Reviewed by Joe Montecalvo and Rich Theuer.
There was no determination made on this material. Craig moved and it was seconded by Jay to
send this material back to the processing committee. Vote: 10 aye / 2 opposed / 2 absent. Craig
also moved to add non-modified starches to the TAP review process and it was seconded by Bob.
Vote - Motion carried unanimously.
(This material’s component parts were all reviewed and approved for use in organic foods.)

Crops Materials

Alcohol (Ethanol) - Reviewed by Vivian Purdy and John Clark.
Determined to be synthetic; Vote: Unanimous.
The NOSB’s decision is to allow this material for use in organic crop production;
Vote: Unanimous. Annotation: Permitted for use as a disinfectant.
Alcohol (Isopropyl) - Reviewed by Vivian Purdy, John Clark and Marta Engel.
Determined to be synthetic; Vote: 12 aye / 0 opposed / 2 absent.
The NOSB's decision is to allow this material for use in organic crop production;
Vote: 13 aye / 1 opposed. Annotation: Permitted for use as a disinfectant.
Discussion: Michael Sligh moved and it was seconded by Jay to return brewery wastes back for
further review to the TAP. Motion carried unanimously. Also, Rod moved and it was seconded
by Tom Stoneback to send alcohol (made from methane) for further review to the TAP. Motion
carried unanimously.

Ammonium Carbonate - Reviewed by John Clark and Helmut Reidl.
Determined to be synthetic; Vote: 12 aye / 0 opposed / 2 absent.
The NOSB's decision is to allow this material for use in organic crop production;
Vote - Unanimous. Annotation: For use as bait in insect traps only. Cannot be in direct contact
with crop or soil.

Antibiotics (Avermectin) - Reviewed by Jerry Feitelson, Philip VanBuskirk, and Gregg Young.
Determined to be synthetic; Vote - Unanimous.
The NOSB has determined that this material is unacceptable for use in organic crop production;
Vote: 3 aye / 6 opposed / 4 abstentions.

Antibiotics (Streptomycin sulfate) - Reviewed by Phillip VanBuskirk, Greg Young, and Jerry
Feitelson. Determined to be synthetic; Vote - Unanimous.
The NOSB's decision is to allow this material for use in organic crop production;
Vote: 10 aye / 3 opposed. Annotation: Permitted for use as a fireblight control in apples and
pears only. To be reviewed again in two years.

Antibiotics (Terramycin-Oxytetracycline calcium complex) - Reviewed by Phillip
VanBuskirk, Gregg Young, and Jerry Feitelson. Determined to be synthetic; Vote - Unanimous.
The NOSB's decision is to allow this material for use in organic crop production;
Vote: 10 aye / 1 opposed / 2 abstentions. Annotation: To be reviewed again in two years.
Discussion: Gene Kahn will organize a taskforce to further explore antibiotic use in crop
production.

Aquatic Plant Extracts (Other than hydrolyzed) - Reviewed by Donald Blakeney, Bruce
Spencer. Determined to be synthetic; Vote: 11 aye / 2 absent.
The NOSB's decision is to allow this material for use in organic crop production;
Vote: 10 aye / 1 abstention / 2 absent. Annotation: Extraction process is limited to the use of
potassium hydroxide and sodium hydroxide. The amount of the solvent used is not to exceed the
amount necessary for extraction.

Chlorine Bleach (Calcium hypochlorite, sodium hypochlorite, chlorine dioxide) -
Determined to be synthetic; Vote - Unanimous (2 absent).
The NOSB’s decision is to allow this material for use for **organic crop production, organic food processing, and organic livestock production.** Vote: 9 aye / 2 opposed / 2 absent.

Annotation: Allowed for disinfecting and sanitizing food contact surfaces. Residual chlorine levels for washwater in direct crop or food contact and in flush water from cleaning irrigation systems that is applied to crops or fields cannot exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (currently 4mg/L expressed as Cl₂). This substance is to be reviewed again in two years.

**Coppers, Fixed** - Reviewed by Brian Baker and Eric Sideman.

Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic crop production;

Vote - Unanimous. Annotation: May be used for disease control. May not be used as an herbicide. Shall be used in a manner that prevents excessive copper accumulation in the soil.

**Lignin Sulfonate** - Reviewed by Brian Baker, Philip VanBuskirk, and Diana Tracy.

Determined to be synthetic; Vote - Unanimous (2 absent).

The NOSB’s decision is to allow this material for use in organic crop production;

Vote: 11 aye / 1 opposed / 1 absent. Annotation: Allowed for use with micronutrients and macronutrients and as a chelating agent. Also allowed for use as a dust suppressant and a flotation agent.

**Magnesium Sulfate** - Reviewed by John Clark and Bart Hall.

Determined to be synthetic; Vote - Unanimous (2 absent).

The NOSB’s decision is to allow this material for use in organic crop production;

Vote - Unanimous (2 absent). Discussion / Annotation: Gene noted that this material is usually applied to the soil at a rate of 20 lbs per acre. Merrill moved and it was seconded by Gene to add the following Annotation: “Allowed for use as a soil amendment with a documented magnesium deficiency”. Vote - Motion carried unanimously (1 absent).

**Newspaper Mulch** - Reviewed by Sam Cotner, Eric Sideman, and Joseph Heckman.

Determined to be synthetic; Vote - Unanimous (1 absent).

The NOSB’s decision is to allow this material for use in organic crop production;

Vote: 12 aye / 1 opposed / 1 absent. Discussion / Annotation: Tom Stoneback noted that the printing industry is now using state of the art equipment and supplies. Most of the inks tend to be soy-based. Gene moved and it was seconded by Bob to accept the annotation -- “Glossy paper and colored ink paper is prohibited.” Vote: 10 aye / 3 opposed / 1 absent. Motion carried.

**Petroleum Distillates** - Reviewed by Philip VanBuskirk, Brian Baker, and Chris Milne.

Determined to be synthetic; Vote - Unanimous.

The NOSB’s decision is to allow this material for use in organic crop production;

Vote: 11 aye / 2 opposed. Annotation: Restricted to petroleum derivatives with a 50% boiling point at 10mm mercury pressure between 415 degrees F° and 440 degrees F° ± 8 degrees F°.

Aromatic petroleum solvents including, but not limited to, benzene, naphthalene, toluene and
xylene are prohibited. Allowed for use in organic production as suffocating or stylet oils on foliage and as inert ingredients. May be applied to dormant perennials. Direct application to harvested crop is prohibited. Petroleum distillates may not be used as either weed or carrot oils in organic production. Land covered with petroleum derived pavement and road oils cannot be certified organic for 3 years following application.

Discussion: Zea Sonnabend noted that petroleum distillates are used as carriers and fillers and are necessary ingredients. Merrill commented on the need to move away from a reliance on chemicals, and suggested the addition of "woody perennials" to the annotation. Bill Wolf then followed by stating that the vegetable-based dormant oils aren't yet registered, and that all of the dormant oils currently on the market are petroleum based. He also noted that they are most commonly used in pest control, and pose the least ecological impact.

Plastic Mulch and Covers [Petroleum based; other than poly-vinyl chloride (PVC)] - Reviewed by Sam Cotner and Richard Harwood. Determined to be synthetic; Vote - Unanimous. The NOSB's decision is to allow this material for use in organic crop production; Vote - Unanimous. Annotation: PVC is prohibited. Petroleum-based plastics other than PVC are acceptable. Restricted by OFPA as having to be removed at the end of each growing or harvest season; also, shall not be incorporated into the soil or left in the field to decompose.

Sticky Traps and Barriers - Reviewed by Helmut Riedl, John Clark, and Vivian Purdy. Determined to be synthetic; Vote - Unanimous (2 absent).

The NOSB's decision is to allow this material for use in organic crop production; Vote - Unanimous (2 absent).

Vitamin D1, C, and E - Reviewed by David Knauft, Donald Blakeney, and Amigo Cantisano.

Determined to be synthetic; Vote: 10 aye / 3 absent.

The NOSB's decision is to allow this material for use in organic crop production; Vote: 11 aye / 2 absent.

Vitamin D3 - Reviewed by Gregg Young and Donald Blakeney.

Determined to be synthetic; Vote - Unanimous.

The NOSB's decision is to allow this material for use in organic crop production; Vote - Unanimous. Annotation: Permitted as a rodenticide.

Arsenate Treated Lumber - Reviewed by Chris Milne, Eric Sideman, and Sam Cotner.

Determined to be synthetic; Vote - Unanimous.

The NOSB has determined that this material is unacceptable for use in organic crop production; Vote - Unanimous. Commentary: Effective on the publication date of the final rule, the use of arsenate (and other prohibited materials) treated lumber is prohibited for new construction and replacement purposes. Certification applicants shall provide records to the certifying agent that arsenate (and other prohibited materials) treated lumber was not installed within 36 months immediately preceding the initial harvest date of any organic agricultural products. In no case
shall arsenate (and other prohibited materials) treated lumber be allowed in installations in
contact with the soil and used to grow vegetables (soil beds).

Gypsum By-Product (From flue trappings and fertilizer manufacture, and from drywall
manufacture) - Reviewed by Diana Tracy, John Clark, and David Knauf. Determined to be
synthetic; Vote - Unanimous.

The NOSB has determined that this material is unacceptable for use in organic crop production;
Vote: 4 aye / 9 opposed. Discussion: It was noted (in terms of tonnage) that organic farmers
buy a significantly large amount of gypsum each year. There are two primary sources-mined and
mixed. Unfortunately, one is not distinguishable from the other.

Killed Microbial Pesticide (Pseudomonas florescens with Bt gene) - Reviewed by Margaret
Determined to be synthetic; Vote - Unanimous.

The NOSB has determined that this material is unacceptable for use in organic crop production;
Vote: 3 aye / 10 opposed.
Discussion: Bill Wolf spoke against the allowance of killed microbials, as the political climate is
not right at this time for their approval. He also noted that the technology definitely needs to be
looked at -- it's not all bad. He suggested that the Board take time to sort out all the relevant
issues, and vote on it at a later time. Michael Sligh concurred, and suggested a taskforce take
another look at the material. Rod continued, and mentioned the possibility of States requiring the
use of genetically engineered forms of materials in the future. Gene commented on the fact that
there is much information available on this material and the Board should not base a discussion
on fear and superstition. He also noted that the rejection of this material would be a major
setback to the organic industry. Brent Wiseman spoke of tests already conducted on these
materials, and that many have already been reviewed and determined to be safe. He also noted
that they should be reviewed again, prior to approval for use in organic production. Tom Tomas
noted that organic certifiers already reject this technology. Jay also concurred with the majority,
and that it is okay for organics to reject biotechnology, as organics built on caution. Eric
Kindberg noted that this is currently allowed only because it is determined to be dead, and it is
not the same as live microbials; it is used for gypsy moth control currently. Brian Baker
expressed the view that it is okay to consider its use, but at this time he is not prepared to make a
judgement on the material. Craig concurred with Gene and Brian, but noted that the industry is
not prepared for the consumer backlash that is certain to follow its approval. K. Chandler
rounded out the discussion by noting that IFOAM's prohibition of this material takes away tools
from farmers by categorically rejecting this technology which has the potential to overcome the
current chemical approach that is taken by conventional agriculture. Kathleen's concerns for the
material centered around its compatibility with sustainability and the political backlash that was
mentioned by Bill and Craig.

Leather By-Product - Reviewed by Brian Baker, Paul Sachs, Walter Glinsmann, and Bart Hall.
Determined to be synthetic; Vote - Unanimous (1 absent).

The NOSB has determined that this material is unacceptable for use in organic production;
Vote: 5 aye / 8 opposed. Discussion: Bob began the discussion by noting that he doesn’t use the product, but would like to consider its appropriateness for organic production. His concern centers around the 3% chromium in the finished product. K. Chandler followed with the observation that people take chromium tablets and he personally wants more information on its effects in the soil. Bruce Krantz of the Hynite corporation explained that EPA has removed chromium from it “concerned” list, and that chromium is not a problem, as it had been considered in the past. Brian spoke against the material, specifically the application of biocides and other synthetic materials that are used in the processing of the hides. Bob moved and it was seconded by Gene to exclude dyed and finished leather by-products - Vote: 11 aye / 1 opposed / 1 abstention. Motion carried. Following the prohibition of this material, Jay moved and it was seconded by Gene for the NOSB to develop a policy on alternative use of waste products (from organic systems). Motion carried unanimously.

Potassium Nitrate (Niter) - Reviewed by Walter Jeffery, Brian Baker, and Bart Hall.
Determined to be synthetic; Vote: 10 aye / 3 absent.
The NOSB has determined that this material is unacceptable for use in organic crop production.
Vote: 12 aye / 0 opposed / 1 absent.

Gypsum By-Product (Mined Source) - Reviewed by Diana Tracy, John Clark, and David Knauf. Determined to be non-synthetic; Vote - Unanimous (2 absent).
The NOSB’s decision is that this material should not be placed on the Prohibited Natural(s) List.
Vote - Unanimous (2 absent).

Potassium Chloride (Muriate of Potash) - Reviewed by Walter Jeffery and Joseph Heckman.
Determined to be non-synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is that this material should not be placed on the Prohibited Natural(s) List.
Vote: 0 aye / 11 opposed / 2 abstentions / 1 absent.
Commentary: Only the mined source is considered non-synthetic. Any use shall be in a manner that prevents excessive chloride accumulation in soils. Soil testing may be required in both treated and untreated adjacent soils to verify absence of chloride build-up.

Sodium Bicarbonate - Reviewed by Eric Sideman and Walter Jeffery.
Determined to be non-synthetic; Vote - Unanimous (2 absent).
The NOSB’s decision is that this material should not be placed on the Prohibited Natural(s) List.
Vote: 1 aye / 12 opposed / 2 absent.

Sulfur Dioxide - Reviewed by Walter Jeffery and Brian Baker.
This material was tabled by the NOSB and will be sent back to the TAP for further review.

The following pettioned materials are deemed by the NOSB to be synthetic, incompatible with organic farming systems, prohibited by the Organic Foods Production Act of 1990 and should not be reviewed by the Technical Advisory Panel:

Benomyl  Captan  Glyphosate  Methoxychlor  Thiram.
Livestock Materials

Alcohol (Ethanol) - Reviewed by John Clark, Vivian Purdy, and Marta Engel.
Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote: 13 aye / 0 opposed / 1 abstention.
Annotation: Allowed for use in medical treatments and as a disinfectant. Prohibited for use as a feed additive.

Alcohol (Isopropyl) - Reviewed by Vivian Purdy, John Clark, and Marta Engel.
Determined to be synthetic; Vote: 11 aye / 0 opposed / 2 abstentions.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote: 13 aye / 1 opposed. Annotation: Approved for use only as a disinfectant.

Alcohol (Methanol) - Rod moved and it was seconded by Tom Stoneback to send this material back to the TAP for more review. Motion passed unanimously.

Brewery Wastes - Michael Sligh moved and it was seconded by Jay to send this material back to the livestock committee for review as a feed ingredient. Motion passed unanimously.

Chlorine Bleach (Calcium hypochlorite, sodium hypochlorite, chlorine dioxide) -
Determined to be synthetic; Vote - Unanimous.
Annotation: Allowed for disinfecting and sanitizing food contact surfaces. Residual chlorine levels for washwater in direct crop or food contact and in flush water from cleaning irrigation systems that is applied to crops or fields cannot exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (currently 4mg/L expressed as Cl₂). This substance is to be reviewed again in two years.

Copper Sulfate - Reviewed by Lynn Brown and William Zimmer.
Determined to be synthetic; Vote: 11 aye / 1 abstention / 1 absent.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote: 12 aye / 1 abstention.
Annotation: For topical use or as an essential nutrient.

Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote - Unanimous. Annotation: May not contain antibiotics.

Glucose - Reviewed by Marta Engel and Lynn Brown.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote - Unanimous.

Hydrated Lime (Calcium Hydroxide) - Reviewed by Brian Baker.
Determined to be synthetic; Vote - 11 aye / 1 opposed / 1 absent.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote: 11 aye / 1 abstention / 1 absent. Annotation: Not permitted for soil application or to
cauterize mutilations or deodorize animal wastes.

Local Anesthetics ( Lidocaine and Procaine only) - Reviewed by Marta Engel and William
Zimmer. Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow these materials (lidocaine and procaine) for use in organic
livestock production. Vote - Unanimous.
Discussion / Annotation: Lynn Coody noted that producers usually administer local anesthetics,
and that additional anesthetics should be used only under the general supervision of a licensed
veterinarian. Merrill moved and it was seconded by Jay to add the following annotation to the
approved local anesthetics: Use requires a withdrawal period of 90 days in livestock intended for
slaughter and 7 days in dairy animals. Vote: 11 aye / 3 opposed. Motion carried.

Magnesium Sulfate ( Mined Epsom Salt) - Reviewed by Marta Engel, Lynn Brown, and
William Zimmer. Determined to be non-synthetic; Vote: 9 aye / 4 abstentions / 1 absent.
The NOSB’s decision is that this material should not be placed on the Prohibited Natural(s) List.
Vote - Unanimous (2 absent).

Magnesium Sulfate (synthetic) - Reviewed by Marta Engel, Lynn Brown, and William Zimmer.
Determined to be synthetic; Vote: 12 aye / 1 absent / 1 abstentions.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote: 12 aye / 2 opposed. Discussion: Brian Baker noted that the non-synthetic form of this
material is currently allowed and is in use. Merrill moved and it was seconded by Jay to add the
Annotation: “External use only on non-ruminants only.” Vote: 2 aye / 12 opposed. Motion
fails.

Milk Replacers - Reviewed by Lynn Brown and Marta Engel.
Determined to be synthetic; Vote: 12 aye / 0 opposed / 2 abstentions.
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote - Unanimous (1 absent). Annotation: Emergency use only when fresh milk is not available.
Milk replacers based on non-milk products or from BST treated animals are not permitted. No
antibiotics may be added. Milk from certified organic animals is preferred.

Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote - Unanimous. Annotation: For topical use and as a lubricant.
Determined to be synthetic; Vote - Unanimous.
The NOSB’s decision is to allow synthetic vitamins for use in organic livestock production;
Vote: 10 aye / 2 opposed / 1 abstention / 1 absent. Annotation: Limited to those approved by
the Food and Drug Administration for livestock use.
Discussion: This discussion initially began as the discussion on Folic Acid and was redirected to
evaluate vitamins as a category, rather than to review each individual vitamin.
Vote: 10 aye / 2 opposed / 2 absent. Motion carried. Merrill expressed strong objections to
acceptance of materials in a category format and asked that each substance be individually
reviewed.

Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow synthetic mineral for use in organic livestock production;
Vote: 10 aye / 2 opposed / 1 abstention / 1 absent.
Annotation: Limited to those approved by the Food and Drug Administration for livestock use.

Determined to be synthetic; Vote - Unanimous (1 absent).
The NOSB’s decision is to allow this material for use in organic livestock production;
Vote - Unanimous (1 absent). Annotation: No routine or long term use. May be used only when
necessary to allow an animal to let down milk during the first few days of lactation and also for
other approved veterinarian uses.

Alcohol (Derived from fermentation) - Reviewed by John Clark and Marta Engel.
The NOSB has determined that this material is non-synthetic and not within the scope of the
National List.

Probiotics - Reviewed by Lynn Brown, William Zimmer, and Marta Engel.
Determined to be non-synthetic; Vote: 9 aye / 0 opposed / 3 abstention.
The NOSB has determined that this material is non-synthetic and not within the scope of the
National List.

Colostrum Whey Antibodies - Reviewed by Lynn Brown and Richard Krengel.
Determined to be synthetic; Vote: 7 aye / 6 opposed / 1 absent.
Discussion: After considerable discussion and debate over the synthetic / non-synthetic status of
colostrum, the following votes were taken:
1) Is colostrum from livestock not treated with BST synthetic?
   Vote: 0 aye / 11 no / 3 absent.
2) Should non-synthetic colostrum be placed on the National List as a prohibited natural?
   0 aye / 11 no / 3 absent.
3) Is colostrum from livestock treated with BST synthetic?
   9 aye / 0 no / 3 abstentions / 2 absent.
4) Should synthetic colostrum be prohibited for use in organic livestock production?
   12 aye / 0 no / 2 absent.

Following the aforementioned votes, the NOSB moved to table this material. Motion passed unanimously.

November 3, 1995

The final session of the NOSB meeting was called to order at 8:00 a.m. by chairperson Bob Anderson.

Members in attendance were: Tom Stoneback, Craig Weakley, Dean Eppley, Don Kinsman, Merrill Clark, Michael Sligh, Bob Anderson, Gene Kahn, K. Chandler, Rod Crossley, Kathleen Merrigan, Margaret Wittenberg, and Jay Friedman. Tom Tomas was present as the certifying agency advisor to the NOSB.

National Organic Program staff members present from USDA were: Michael Hankin and Toni Strother.

The TAP coordinators and materials advisors present were: Zea Sonnabend, John Brown, Brian Baker, Lynn Coody, and Bill Wolf.

Kathleen Merrigan moved and it was seconded by Don Kinsman to adopt the arsenate treated lumber resolution. There was one friendly amendment - add “and lumber treated with other prohibited materials” to the title and throughout the document. Motion passed unanimously.

Lynn Coody followed with a continuation of the antibiotics presentation. It was noted that two antibiotics have been historically approved for disease control, while Avermectin is a miticide for which other options exist.

Following the antibiotics presentation, an expanded discussion on killed microbial pesticide ensued.

Michael Sligh and Jay Friedman left the meeting at 9:25 a.m. For voting purposes, there were

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2See Arsenate Treated lumber under crops materials, page 37.
3See Antibiotics (Avermectin, Streptomycin sulfate, and Terramycin-oxytetracycline calcium complex) under crops materials, page 32-33. Also, see attachment 1.
4See Killed Microbial pesticide under crops materials, page 38-39.
now 11 voting Board members.

Immediately following the conclusion of the materials review and voting, Bob Anderson moved and it was seconded by Dean to accept the Orlando minutes. Craig suggested the word “seconded” be added at line 1074 after the word ‘Chandler’ (No objections). The minutes were subsequently approved by a vote of 9-1, and the NOSB instructed USDA staff to incorporate all previous written revisions submitted by NOSB members, except for the requested vote changes by Merrill.

Margaret Wittenberg was selected as the new chairperson of the Processing, Handling, and Labeling Committee (11-0).

K. Chandler moved and it was seconded by Merrill to have the USDA mail out the NOSB definition of “organic” to the public mailing list. Motion carried unanimously.

Subsequently, the NOSB passed the following resolutions:

**Fiber Processing Standards** - USDA is requested to incorporate processing standards for fibers into the National Organic Program as soon as possible. Because a specific NOSB recommendation on such standards cannot be made before the next meeting of the Board, USDA is requested to use the organic fiber processing standards established by the Texas Department of Agriculture as well as consultations with members of the NOSB Processing, Handling and Labeling Committee as resources for the development of such standards. Craig then moved and it was seconded by Don Kinsman to approve the resolution. Tom Stoneback expressed his support of the fiber resolution. Motion carried unanimously.

**Comment Period for the Proposed Rule** - The public is extremely interested in the development of the national organic program. In order to ensure adequate opportunity for public input on what will be a lengthy and complex proposed rule, we request and urge the USDA to provide a minimum 90 day comment period. Motion carried unanimously.

Bob Anderson then inquired as to how the Board would move ahead on the materials review, and whether or not Zea will continue to serve as the NOSB TAP Coordinator. Kathleen expressed her support for Zea’s continuation. However, Zea said that she was not interested in another contract to continue work. She went on to question what will be done with the monies remaining on John Brown’s contract and what his future role will be. She also expressed her uncertainty as to the USDA’s ability to coordinate the TAP process, and the need for oversight of the USDA. Kathleen then moved forward the Technical Advisory Panel Review Coordinator Resolution:

We urge the Secretary to find adequate resources to retain an independent consultant recognized as an expert in organic production, to coordinate the technical advisory panel review process. Her resolution was unanimously approved.

Also at the request of Kathleen, the Executive Committee agreed to develop a policy on what
should be mailed to the USDA/NOSB mailing list. The Executive committee will also decide
how to get a sense of the NOSB activities between meetings, in view of the reduced funding.
Ms. Merrigan will also lead efforts to coordinate current and past NOSB members in preparing
responses to the USDA proposed rule for the National Organic Program.

The ethics document prepared by Fred Kirschenmann was unanimously tabled. The Board also
unanimously consented on a Central Midwest location for the next NOSB meeting.

The meeting was adjourned at 10:35 a.m.