United States Department of Agriculture
Agricultural Marketing Service | National Organic Program

Document Cover Sheet

Document Type:

☒ **National List Petition or Petition Update**

A petition is a request to amend the USDA National Organic Program's National List of Allowed and Prohibited Substances (National List).

www.ams.usda.gov/rules-regulations/organic/national-list

Any person may submit a petition to have a substance evaluated by the National Organic Standards Board (NOSB) [7 CFR 205.607(a)].

www.ams.usda.gov/rules-regulations/organic/nosb

National List Petition Guidelines for submitting a petition are available on the AMS website at How to File a Petition.

www.ams.usda.gov/rules-regulations/organic/national-list/filing-petition

AMS posts completed petitions online for public access on the NOP Petitioned Substances Index

www.ams.usda.gov/rules-regulations/organic/petitioned-substances

☐ **Technical Report**

A technical report is developed in response to a petition to amend the National List. Reports are also developed to assist in the review of substances that are already on the National List. Technical reports are completed by third-party contractors and AMS posts completed technical reports online for public access on the NOP Petitioned Substances Index. Contractor names and dates completed are available in the report.

www.ams.usda.gov/rules-regulations/organic/petitioned-substances

Read more about the technical report process in section **H. SUBSTANCE/MATERIALS REVIEW PROCESS** in the NOSB Policy & Procedures Manual posted on the AMS website.

www.ams.usda.gov/sites/default/files/media/NOSB-PolicyManual.pdf

www.ams.usda.gov/rules-regulations/organic/nosb

Addendum - Relevance of Additional Reference Sources

L-Lysine National List Petition (7 CFR § 205.603(d))

This addendum responds to a request from NOP/NOSB to clarify the relevance of 34 sources identified in the petition's Endnotes and Compiled References appendix that were not individually cited or discussed in the petition body or in any of the nine appendices. Below they are organized by the appendix or claim each supports.

Swine Ration Formulation (Supports Appendix E)

These sources are part of the same Kansas State University Swine Nutrition Guide, and companion extension guides, that reference numbers 38, 40, 41, 43, 48, and 49 are already drawn from in Appendix E's discussion of swine amino acid requirements and ration formulation.

#	Source	Relevance to Petition Record
39	Kansas State University, Swine Nutrition Guide (overview)	General guide source from which the specific amino-acid and diet-formulation subsections cited in Appendix E (references 40, 41, 43, 48, 49) are drawn.
42	Kansas State University, Diet Formulation	Supports Appendix E's discussion of how limiting amino acids are addressed in practical ration formulation.
44	Kansas State University, Limiting Amino Acids	Supports Appendix E's central claim that lysine is commonly the first-limiting amino acid in swine diets.
45	Kansas State University, Feed-Grade Amino Acids in Grow-Finish Diets	Supports Appendix E's discussion of lysine inclusion at the grow-finish life stage.
46	Kansas State University, Amino Acids, Swine Nutrition Guide	Provides amino acid tables for grow-finish diets supporting ration-formulation figures referenced in Appendix E.
47	Kansas State University, Feed-Grade Amino Acids in Nursery Diets	Supports the nursery-phase lysine requirement discussion in Appendix E, complementing the grow-finish data.
50	University of Minnesota Extension, Formulating Farm-Specific Swine Diets	Supports Appendix E's discussion of practical, farm-level ration formulation constraints.
51	University of New Hampshire Extension, Swine Nutrition	General swine nutrition support consistent with the multi-institution extension literature underlying Appendix E.
54	Wensley et al., Effects of Amino Acid Biomass or Feed-Grade Amino Acids on Growth Performance and Carcass Characteristics of Finishing Pigs	Peer-reviewed evidence, alongside references 52, 53, and 55, supporting Appendix E's discussion of feed-grade amino acid supplementation outcomes in finishing pigs.

Poultry and Environmental Context (Supports Appendices D and F)

These sources are direct companions to already-cited references and support the poultry nutrition and environmental-management discussion in Appendices D and F.

#	Source	Relevance to Petition Record
29	eOrganic, Synthetic Methionine and Organic Poultry Diets	Companion source to reference 30 (NCAT/ATTRA), supporting the discussion in Appendix B of how organic operations manage a limiting amino acid constraint when a synthetic source is unavailable or restricted.
35	eOrganic, The Amino Acid Composition of Organic Soybean Meal for the Formulation of Organic Poultry Feed	Companion source to reference 34, supporting Appendix D and Appendix F's discussion of the amino acid content and variability of organic soybean meal as a lysine source.
37	FAO, Poultry species overview	Provides general background on poultry species and production systems referenced in Appendix D's nutritional discussion.
58	Rutgers NJAES, Nutrient Management on Livestock Farms: Tips for Feeding	Supports Appendix F's discussion of feed-management practices relevant to nitrogen and manure management.

Organic Market and Farm Viability Context (Supports Appendices B and F)

These sources provide the underlying USDA and industry data for the organic-sector scope, feed-cost, and farm-viability claims made in Appendices B and F.

#	Source	Relevance to Petition Record
64	USDA ERS, Organic Agriculture	Provides general organic-sector data referenced in Appendix B and Appendix F's discussion of the size and scope of the domestic organic livestock sector.
65	USDA ERS, Poultry & Eggs: Sector at a Glance	Supports the poultry-sector production data underlying the market-potential discussion in Appendix F.
66	USDA ERS, Farm Production Expenses	Supports Appendix F's farm-viability and economic-tradeoff discussion, providing baseline data on feed as a share of production expenses.
67	USDA Blog, Investigating Retail Price Premiums for Organic Foods	Supports Appendix F's discussion of the economic context and price premiums relevant to organic feed-cost tradeoffs.
68	Pork Gateway, Practical Ideas to Address High Feed and Production Costs	Supports Appendix F's discussion of current producer strategies for managing high feed costs, consistent with the workaround-based coping strategies discussed in Appendix B.
69	NCAT, Guide for Organic Livestock Producers	General organic livestock production reference supporting the practical producer-guidance context discussed throughout Appendices B, D, and E.

Manufacturer Specification and Safety Documentation (Supports Appendix G)

These sources are specification sheets, safety data sheets, and independent regulatory safety assessments that support the manufacturing, specification, and safety documentation discussion in Appendix G, alongside already-cited references 70, 71, 72, 73, and 76.

#	Source	Relevance to Petition Record
74	Evonik, Evonik launches updated Biolys product for animal feeds (June 2023)	Supports Appendix G's description of Evonik's Biolys product line and its ongoing product development.
75	ADM Animal Nutrition, Amino Acids - L-Lysine	General ADM product-line source supporting Appendix G's description of ADM as a domestic manufacturer, alongside reference 76.
77	Ajinomoto / distributor SDS, L-Lysine Monohydrochloride Feed Grade SDS	Supports Appendix G's safety and handling documentation for L-lysine monohydrochloride, pending a current manufacturer-issued copy.
78	Ajinomoto AminoScience Europe, L-Lysine HCl specification sheet	Supports Appendix G's product specification discussion for L-lysine HCl, including assay and purity parameters.
79	Evonik Biolys 60 SDS / distributor PDF	Supports Appendix G's safety documentation for the Biolys product line, pending a current Evonik-issued copy.
80	Chemunique, L-Lysine sulfate safety data sheet	Supports Appendix G's safety documentation for L-lysine sulfate forms.
81	ADM L-Lysine HCl 98 distributor specification sheet	Supports Appendix G's product specification discussion for ADM's L-lysine HCl product.
82	Redox, L-Lysine product page	Additional distributor source supporting Appendix G's discussion of commercial L-lysine availability.
83	Feedtables, L-Lysine HCl	Provides standardized nutrient-composition reference data supporting the discussion of L-lysine HCl feed-grade composition in Appendix G and Appendices D/E.
84	UK Food Standards Agency, L-Lysine sulfate assessment document	Provides an independent regulatory safety assessment supporting Appendix G's discussion of the safety profile of L-lysine sulfate.
85	EFSA Panel, Safety and efficacy of L-lysine monohydrochloride and concentrated liquid L-lysine	Provides an independent regulatory safety and efficacy assessment supporting Appendix G's discussion of L-lysine monohydrochloride and liquid forms.
88	EFSA Panel, Safety and efficacy of a feed additive consisting of L-lysine monohydrochloride and L-lysine sulfate produced by *Corynebacterium glutamicum* CGMCC 14498 for all animal species	This EFSA Panel opinion, evaluating the safety and efficacy of L-lysine sulfate as a feed additive, is the companion source to reference #85, together supporting B.10's safety-documentation discussion across all three salt forms named in the petition's proposed annotation.

Miscellaneous Support

#	Source	Relevance to Petition Record
31	Fishing for a Novel Source of Methionine in Organic Poultry Feed	This USDA NIFA-funded project illustrates the extent of alternative-source research required to meet a limiting-amino-acid need in organic poultry production without synthetic supplementation, even for methionine — the amino acid already listed at § 205.603(d) — supporting the petition's broader point in Appendix C that non-synthetic alternatives are not always readily available even where extensive research investment has been directed at finding them.
86	US Patent No 5990350 – Process for Making Granular L-Lysine	These patents describe the specific fermentation-to-granulation manufacturing methods (broth concentration, salt formation, fluidized-bed granulation, and standardization) that B.5 describes in general terms, providing technical substantiation for the manufacturing process description in the petition.
87	US Patent No 8916213B2 – Animal Feed Additives Based on Fermentation Broth and Production Process Thereof by Granulation	