



April 3, 2024

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP

Docket: AMS-NOP-23-0075

RE: Celery Powder—Handling Subcommittee 2026 Sunset Reviews

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the 2026 Sunset Review of celery powder listed on 205.606 of the National List (7 CFR § 205.606 - non-organically produced agricultural products allowed as ingredients in or on process products labeled as organic).

The Organic Trade Association (OTA) is the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, brands, retailers, and others. OTA's mission is to grow and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

The Organic Trade Association supports the continued listing of celery powder on the National List due to the fact that it remains an essential ingredient used in processed organic meat products. Since the last sunset review, much work has been done to develop organic sources of celery or alternative vegetable powder. However, at this time an organic alternative is not yet commercially available. Celery powder has been in use for over a decade as a "curing" agent in certain processed meat products as an alternative to sodium and potassium nitrate and nitrite. Since 2007, conventionally grown celery powder has been allowed for use in certified organic meat products. Since 2010, the organic sausage/deli category has grown at a compound annual growth rate (CAGR) of 29.8% to an estimated \$198 million in 2022. Despite this growth, the organic meat category as a whole still only represents .8% of all retail meat sales in the US and represents the least penetrated organic food category (by comparison, total food is 4.3% of the total US retail food market). As the demand for organic processed meats increases, the organic industry wants to replace the use of conventional celery powder with an organic alternative.

Work continues to build an adequate and stable supply of organic celery powder for the organic cured meat industry. Our sister organic research organization, The Organic Center, is engaged in an ongoing joint project with the University of Wisconsin-Madison and the University of Florida entitled [Organic Alternatives to Conventional Celery Powder](#). Funded by a USDA Organic Research and Extension Initiative Grant, the project aimed to address this critical issue with four objectives:

1. Assessment of nitrogen (N) fertility, genetics, and environment on nitrate levels in organic celery, chard, and beets
2. Sensory and quality evaluation of cured meat products using organic vegetable powder
3. Economic and market assessment of organic celery powder and cured meat products
4. Extension of results.

The long-term goal of the project aims to enhance the capacity of farmers and processors to profitably produce high quality organic processed meat products, while providing economic, agronomic, and environmental benefits to organic crop rotations. While ideally we would have seen further progress on the great work already accomplished, the COVID pandemic set back this and many research projects, losing vital field seasons and research hours. With the pandemic largely behind us, we look forward to this work continuing in earnest.

The research conducted by the University of Wisconsin-Madison and the University of Florida has demonstrated that celery and Swiss chard with adequate levels of tissue nitrate can be produced, using rates of nitrogen fertilizer greater than rates used for standard production of table celery. Higher rates of nitrogen fertilizer, to our knowledge, is also used to produce conventional curing powders. However, these higher rates can likely be managed through cover cropping in ways that minimize negative environmental impacts, although more research is required to confirm best management practices depending on soil type, crop rotation, and environment. While our research in two major production regions has generated recommendations for appropriate nitrogen fertility in these environments, we need to collect more data across working farms to validate these results across more harvest conditions as well.

While organic sources of curing powders are now available, concerns remain with respect to the feasibility of these sources meeting the needs of the entire organic meat processing industry. These concerns include the availability and consistency of supply, as well as understanding the season-to-season variability between sources, for which we need further research. Current research has also investigated the impact of organic curing powders on processed organic meat quality and food safety; this work at UW-Madison demonstrated that organic sources of curing powders produce equivalent food safety and quality parameters as compared to conventional sources. However, more work is needed in partnership with industry to optimize formulas to account for the novel organic curing powder sources.

To further scale up supply, more research is also required to understand how to optimize the fermentation of the organic juices to produce the nitrate used in curing powders. New technologies are being explored to produce the high-quality, consistent product required by industry using organically-allowed practices. In addition to fermentation research, scaling up supply also requires a continued assessment of transportation and processor/handler logistics to ensure consistent product quality. Finally, concurrent with—or in addition to—ramping up supply, processors of cured meat products will require time to trial alternatives to ensure products meet the taste and consistency consumers expect.

Results of OTA Outreach

In addition to the research noted, OTA used our online sunset surveys (see Appendix A) to solicit feedback from certified operations to determine the continued need for celery powder, as well as to address specific questions posed by the Board. OTA posts online sunset surveys for each input under review as part of the 2026 Sunset Review cycle. These surveys are open to any NOP certified organic operation and include questions addressing the necessity of each input, as well as any questions posed by the Board. The names of the companies submitting the information remain confidential and are not disclosed to OTA unless there is interest in providing contact details for follow up information.

Below is a summary of the feedback OTA has received to date on celery powder. OTA will open our online surveys again when the comment period opens for the fall meeting and share any further comment received at that time.

Substance	Summary of Responses
Celery powder	<p>Responses received from certified organic producers and processors of cured meat products</p> <p>Use</p> <ul style="list-style-type: none"> - In a variety of processed meat products that carry the “uncured” label, as required by USDA-FSIS. This includes hot dogs (beef and turkey), meat sticks, summer sausage logs, deli ham, summer sausage, pepperoni, pork bacon and half hams. Celery powder provides additional attributes to curing, including maintaining a pink color, flavor, and stability of the finished product. <p>Have you tried alternative substances or management practices?</p> <ul style="list-style-type: none"> - See other comments <p>How necessary is this substance to your operation?</p> <ul style="list-style-type: none"> - Essential <p>NOSB questions to stakeholders</p> <ol style="list-style-type: none"> 1. Is there stakeholder concern about ongoing non-specified ancillary substances used in this material? <ul style="list-style-type: none"> - We are unaware of ancillary substances in celery powder. 2. Is organic supply commercially available for this material? What are the barriers to organic production? <ul style="list-style-type: none"> - Wenda Ingredients (Suzhou China) offers NOP certified organic celery powder and organic celery juice powder. The celery is grown in Chile then shipped to China for production. When referencing 606, we also noticed they offer organic beet powder and organic beet juice powder. 3. Is the organic version of the same caliber as the nonorganic? <ul style="list-style-type: none"> - Prosur in Spain (Prosur - Get it Natural) offers EU organic plant-based curing agents. This product works best with poultry and ham. Since less effective with other pork products, its use would be limited in our business.

As evidenced by the results of the work to date, the Organic Trade Association, The Organic Center, our research partners, and cured meat processors are committed to help the industry innovate and proactively take steps to transition to an organic form of celery or vegetable powder. However further work and investment is necessary to scale up production, diversify raw and processed suppliers, and ensure there is product consistency before removing celery powder from 205.606 of the National List.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



Scott Rice
Regulatory Director
Organic Trade Association

cc: Tom Chapman, co-CEO
Organic Trade Association

Appendix A – OTA Sunset Survey on Celery Powder

- What products do you use this on?
- Have you tried using any alternative substances (e.g., other substances that are on the National List and/or other natural substances) or management practices?
- How necessary is this substance to your operation:
 - Not Necessary
 - Somewhat necessary
 - Essential
- Optional: Please provide any additional context and/or contact information so we can follow up with any questions.

NOSB Questions to Stakeholders

1. Is there stakeholder concern about ongoing non-specified ancillary substances used in this material?
2. Is organic supply commercially available for this material? What are the barriers to organic production?
3. Is the organic version of the same caliber as the nonorganic?