VERIFICATION OF NATURAL FLAVOR

This form must be completed by the supplier or manufacturer of each natural flavor used by PCO-certified operations in products labeled as "organic" or "made with organic (specified food groups)." PCO may require additional information if needed to verify compliance with applicable regulations and policies. Relevant definitions are included on page 3.

The USDA National Organic Program (NOP) regulations allow for nonsynthetic natural flavors at 7 CFR 205.605(a):

> *"Flavors* – nonsynthetic flavors may be used when organic flavors are not commercially available. All flavors must be derived from organic or nonsynthetic sources only and must not be produced using synthetic solvents and carrier systems or any artificial preservatives." In addition, the organic regulations prohibit the use of genetic modification, ionizing radiation, and sewage sludge.

Supplier/Manufacturer Name: _____

Flavor name and code on technical data sheet: _____

1. Does the natural flavor and all its flavor constituents meet the FDA definition of a natural flavor (*found on page 3*)? ☐ Yes ☐ No

2. List all specific sources of the flavor (e.g. spice, plant part, essential oil, etc).

3. Is the material only formulated for flavoring purposes (no nutritional use/other functions)?
☐ Yes ☐ No

4. Do the flavoring agent(s) in this material only consist of substances that do not impart a specific characteristic flavor, such as flavorings with modifying properties? *For example, if the only flavoring agent in the material is Luo Han Guo (Monk Fruit) derived products, Thaumatin, Glycosylated Steviol Glycosides, or similar the response should be Yes.* ☐ Yes ☐ No
   - If Yes, attach documentation detailing the maximum usage rate for the overall flavor material to qualify as a natural flavor: ☐ Attached ☐ N/A

5. Is/are the natural flavor constituents(s) made using NOP compliant (non-synthetic) extraction materials? *Allowed natural extraction materials include natural ethanol, super-critical carbon dioxide, authentic essential oil, and natural vegetable oils. No hydrocarbon, chlorinated, or halogenated solvents may be used. Propane, hexane, triglycerides, and freon are examples of solvents that are prohibited.*
☐ Yes ☐ No ☐ N/A, no extraction materials are used.
   - If Yes, list solvent(s)/extraction material(s) used in the production of the natural flavor. If alcohol/ethanol is used, please indicate whether it is produced via fermentation:

6. List any carrier systems(s) used in this Natural Flavor. ☐ N/A, no carrier system(s) used.
   - If maltodextrin is used as a carrier, please attach confirmation from the supplier/manufacturer that enzymes are primarily responsible for hydrolysis. ☐ Attached ☐ N/A

- If glycerin is used as a carrier or solvent, please provide its organic certificate or a completed PCO Verification of Non-Organic Ingredient form and confirmation from the supplier/manufacturer that the glycerin is produced from agricultural source materials and processed using biological or mechanical/physical methods. ☐ Attached ☐ N/A

7. List any preservative(s) used in this Natural Flavor. ☐ N/A, no preservative(s) used.
   - If citric acid is used as a preservative, is it produced via fermentation of carbohydrates? ☐ Yes ☐ No ☐ N/A

8. List all other non-flavor ingredients/adjuvants aside from those identified elsewhere on the form and detail the function they serve in the flavor. ☐ N/A, no other non-flavor ingredients/adjuvants are present in the flavor aside from those identified elsewhere on this form.

Non-Flavor Ingredient/Adjuvant	Function in the Flavor

9. Excluded methods, including genetic modification/GMOs, are prohibited for use at any stage in the process of making natural flavor products for use in products certified under the NOP. *Please see the following pages for the definition and examples of excluded methods.*
   - This natural flavor, including any solvents, carriers, preservatives or other processing aids used or contained therein, was produced and handled without the use of excluded methods (NOP), as defined at 7 CFR 205.2. ☐ Yes ☐ No

10. Ionizing radiation is prohibited for the treatment of organic products and inputs used to produce organic products. Other forms of radiation, including those used for food inspection, are permitted providing the uses meet applicable regulations that establish limitations pertaining to all (organic and non-organic) food products.
    - This natural flavor has been handled without the use of ionizing radiation as described in 21 CFR 179.26(US). ☐ Yes ☐ No

11. Sewage sludge is prohibited for use in the production and handling of non-organic flavors used in products certified under the NOP.
    - This natural flavor, including any solvents, carriers, preservatives or other processing aids used or contained therein, was produced and handled without the use of sewage sludge as defined at 7 CFR 205.2. ☐ Yes ☐ No

12. Check here to OMIT this material from PCO's printed Allowed Materials List (*e.g. custom or proprietary inputs).* ☐ Omit

Relevant definitions:

- FDA definition of Natural Flavor – Natural flavors or natural flavoring means the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional. Natural flavors include the natural essence or extractives obtained from plants listed in §§ 182.10, 182.20, 182.40, and 182.50 and part

184 of this chapter, and the substances listed in 172.510 of this chapter. (21 CFR 101.22(a)(3))

- NOP definition of Nonsynthetic – A nonsynthetic (natural) substance is derived from mineral, plant, or animal matter and does not undergo a synthetic process as defined in section 6502(21) of the Act (7 U.S.C. 6502(21)). (7 CFR 205.2)
- NOP definition of Synthetic – A synthetic substance is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes. (7 CFR 205.2)
- NOP definition of Excluded Methods- Excluded methods are defined as a variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include cell fusion, microencapsulation and macroencapsulation, and recombinant DNA technology (including gene deletion, gene doubling, introducing a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology). Such methods do not include the use of traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture.(7 CFR 205.2)

To be signed by the manufacturer or supplier. Signer must be a qualified technical person.

Pursuant to applicable regulations, I, on behalf of the supplier or manufacturer, hereby attest that the information provided in this form is accurate and truthful to the best of my knowledge.

Signature:		Date:
Printed Name:	Title:	
Address:		
City:	State:	Zip:
Phone:	Email:	

PROHIBITED EXCLUDED METHODS INCLUDE, BUT ARE NOT LIMITED TO:

Method and synonyms	***Types***
Targeted genetic modification (TagMo) syn. Synthetic gene technologies syn. Genome engineering syn. Gene editing syn. Gene targeting	Sequence-specific nucleases (SSNs) Meganucleases Zinc finger nuclease (ZFN) Mutagenesis via Oligonucleotides CRISPR-Cas system (Clustered regularly interspaced short palindromic repeats) and associated protein genes TALENs (Transcription activator-like effector nucleases) Oligonucleotide directed mutagenesis (ODM) Rapid Trait Development System
Gene Silencing	RNA-dependent DNA methylation (RdDM) Silencing via RNAi pathway RNAi

	pesticides
Accelerated plant breeding techniques	Reverse Breeding Genome Elimination FasTrack Fast flowering
Synthetic biology	Creating new DNA sequences Synthetic chromosomes Engineered biological functions and systems
Cloned animals and offspring	Somatic nuclear transfer
Plastic transformation	
Cisgenesis	The gene modification of a recipient plant with a natural gene from a crossable-sexually compatible-plant. The introduced gene includes its introns and is flanked by its native promoter and terminator in the normal-sense orientation.
Intragenesis	The full or partial coding of DNA sequences of genes originating from the sexually compatible gene pool of the recipient plant and arranged in sense or antisense orientation. In addition, the promoter, spacer, and terminator may originate from a sexually compatible gene pool of the recipient plant.
Agro-infiltration	
Transposons – Developed via use of in vitro nucleic acid techniques	
Induced mutagenesis	Developed through in vitro nucleic acid techniques