

**National Organic Standards Board  
Handling Subcommittee Petitioned Material Proposal  
Japones Chile Peppers  
July 17, 2018**

**Summary of Petition**

The petition requests to add non-organic Japones Chile Pepper to the National List at § 205.606, and to allow its substitution when an organic alternative is unavailable.

**Summary of Review:**

**Specific Uses of the Substance:**

As discussed in the petition, the Japones Chile (*Capsicum frutescens*) is a small, pointed chile, 2-3 in long and 0.5 in wide. This chile is similar in appearance to the De Arbol, though the walls of the Japones are thicker. On the heat scale, this chile is 5-6 out of 10, or in Scoville heat units 15,000 to 35,000. Japones chiles are medium hot and frequently found in spicier Asian and Oriental dishes.

**Manufacture:**

According to the petitioner, pepper varieties in *Capsicum frutescens* can be annual or short-lived perennial plants. Flowers are white with a greenish white or greenish yellow corolla and are either insect or self-fertilized. The plant's berries typically grow erect with ellipsoid-conical to lanceoloid shape. They are usually very small and pungent, growing 10-20 mm long and 3-7 mm in diameter. Fruit typically grows a pale yellow and matures to a bright red but can also be other colors. *C. frutescens* has a smaller number of subspecies, likely because of the lack of human breeding compared to other capsicum species. More recently, however, *C. frutescens* has been bred to produce ornamental strains because of its large quantities of erect peppers growing in colorful ripening patterns.

**Category 1: Classification**

1. Substance is for: X **Handling** \_\_\_\_\_ **Livestock**
2. For HANDLING and LIVESTOCK use:
  - a. Is the substance X **Agricultural** or \_\_\_\_\_ **Non-Agricultural**?  
Describe reasoning for this decision using NOP 5033-2 as a guide:

The petition is for Japones Chile peppers as an ingredient in a product. There are no chemical processes involved that would change its structure as a Japones Chile pepper.

**Category 2: Adverse Impacts**

1. What is the potential for the substance to have detrimental chemical interactions with other materials used in organic farming systems? [§6518(m)(1)]  
  
There is little potential for the substance to have detrimental chemical interactions with other materials used in organic farming systems.
2. What is the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment? [§6518(m)(2)]

The substance responsible for Chile peppers' "heat" is capsaicin, 8-methyl-N-vanillyl-6-nonenamide (CH<sub>3</sub>)<sub>2</sub>CHCH=CH(CH<sub>2</sub>)<sub>4</sub>CONHCH<sub>2</sub>C<sub>6</sub>H<sub>3</sub>-4-(OH)-3-(OCH<sub>3</sub>). This is the active component of Chile peppers, which belong to the genus *Capsicum*, and it produces a burning sensation when in contact with human or mammal tissue. There is little information about the substance's breakdown products or any contaminants, and their persistence and areas of concentration in the environment.

3. Describe the probability of environmental contamination during manufacture, use, misuse or disposal of such substance? [§6518(m)(3)]

There is little information regarding environmental contamination during manufacture, use, misuse, or disposal of Japones Chile peppers.

4. Discuss the effect of the substance on human health. [§6517 (c)(1)(A)(i); §6517 (c)(2)(A)(i); §6518(m)(4)].

There is no information provided in the petition about the effect of Japones Chile pepper on health.

5. Discuss any effects the substance may have on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock. [§6518(m)(5)]

There are no effects on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms.

6. Are there any adverse impacts on biodiversity? (§205.200)

No, there are no known adverse impacts on biodiversity.

### **Category 3: Alternatives/Compatibility**

1. Are there alternatives to using the substance? Evaluate alternative practices as well as non-synthetic and synthetic available materials. [§6518(m)(6)]

There are possible substitutes for Japones Chile peppers such as Thai chile peppers, Arbol chile peppers or Guajillo chile peppers. Each of these peppers has slightly different Scoville units, but few of these Chile peppers have organic sources according to the petitioner.

On July 18, 2017, during review by the Handling Subcommittee, the possibility of contracting a grower to produce Japones peppers was raised; however, because that was not a question listed in the petition, this question would be posed directly to the petitioner. While alternatives were listed, there was a question as to whether the alternatives would suffice. There was a question as to whether Japones pepper are not in great supply because of the lack of growers or the lack of processing equipment. The review was deferred, and two questions were posed to the petitioner:

- 1) Has the petitioner contacted growers to inquire about contract growing for the organic Japones peppers?

- 2) There are several listed alternatives for Japones peppers such as Thai chile peppers, Arbol chile peppers or Guajillo chile peppers, some of which are grown organically. Are these organic peppers acceptable alternatives? If no, why not?

On September 1, 2017, the petitioner, Brother Bru Bru answered the questions in a letter to the NOP.

For question one, the petitioner stated, "We have contacted growers about contract growing organic Japones chile peppers, and we are not able to get them in the quantities we would require." No other information was given.

For question two, the petitioner stated, "Brother Bru Bru's has been producing its African hot pepper sauce for 25 years. We have loyal fans and do not want to change the taste, including the heat level. The peppers [sic] suggested as possible alternatives would not be acceptable as there are marked differences in how hot the various peppers are. Japones Chile Peppers have a Scoville Heat Unit (SHU) of 15,000-30,000. The substitution of Thai Chile Peppers with a SHU of 90,000 would increase the heat level; substitution of Guajillo Chile Peppers with a SHU of 2,500-5,000 would reduce the heat level." No other information was given.

**Category 5: Additional criteria for agricultural substances used in handling** (review of commercial unavailability of organic sources):

1. Is the comparative description as to why the non-organic form of the material /substance is necessary for use in organic handling provided?

According to the petitioner, there are insufficient quantities of organic Japones peppers available to produce their product (see Category 3 section 1 for information about questions/answers posed to the petitioner.)

2. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate **form** to fulfill an essential function in a system of organic handling?

The petitioner stated in the original petition, "There is no research as to why organic Japones peppers are not produced in large quantities. At the moment, the only organic Japones peppers found were sold through Amazon from Country Creek Acres for 1 pound increments for \$21.49 per pound (<https://www.amazon.com/JAPONES-PEPPER-WHOLEDRIED-LB/dp/B0118DJKRQ>)." The petitioner asserted that using the Amazon supplier would be inadequate because they could not provide the quantities needed.

3. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate **quality** to fulfill an essential function in a system of organic handling?

There is no current or historical industry information, research, or evidence provided to explain why the Japones pepper cannot be obtained organically in the appropriate quality to fulfill an essential function in a system of organic handling.

4. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate **quantity** to fulfill an essential function in a system of organic handling?

There is no current or historical industry information, research, or evidence provided explaining how or why the Japonese substance cannot be obtained organically in the appropriate quantity to fulfill an essential function in a system of organic handling.

5. Does the industry information about unavailability include (but is not limited to) the following?:  
Regions of production (including factors such as climate and number of regions);

Japonese Peppers are native to China and are commonly used in Caribbean and Latin American cuisines. This Chile is popular among the southern Asian countries because of its pure simple heat that does not have a complex flavor profile.

- a. Number of suppliers and amount produced;

Number of suppliers and amount produced is not readily available.

- b. Current and historical supplies related to weather events such as hurricanes, floods, and droughts that may temporarily halt production or destroy crops or supplies;

No information is available for weather events.

- c. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or

No trade-related issues are available.

- d. Other issues which may present a challenge to a consistent supply?

6. In balancing the responses to the criteria in Categories 2, 3 and 5, is the substance compatible with a system of sustainable agriculture [§6518(m)(7)] and compatible with organic handling? (see NOSB Recommendation, [Compatibility with Organic Production and Handling, April 2004](#))

As *Capsicum frutescens* is grown in many regions, there may be a variety of production techniques in use. More information is needed on production of Japonese Chile peppers.

**Classification Motion:**

Motion to classify Japonese pepper as agricultural

Motion by: Lisa de Lima

Seconded by: A-dae Romero-Briones

Yes: 4 No: 0 Abstain: 0 Absent: 3 Recuse: 0

**National List Motion:**

Motion to add Japonese pepper at §205.606

Motion by: Lisa de Lima

Seconded by: Steve Ela

Yes: 2 No: 2 Abstain: 0 Absent: 3 Recuse: 0

**Approved by Lisa de Lima, Subcommittee Chair, to transmit to NOSB, August 24, 2018**