

November 21, 2006

National Organic Standards Board
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RESUBMISSION OF PETITION WITH CONFIDENTIAL BUSINESS INFORMATION (CBI) DELETED -- ORIGINALLY SUBMITTED ON MAY 22, 2006

ADDITION OF "GALANGAL, FROZEN" TO 205.606

ITEM A

This petition requests that "Galangal Frozen" be added to the National List under 205.606 Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic". This agricultural substance is unavailable as organic in the frozen-from-fresh form which is required to obtain optimal flavor for certain ethnic cuisines. Addition of this item to 205.606 would allow for the substitution of conventional galangal frozen in the instances when organic is unavailable or organic supplies are unacceptable for the intended use.

ITEM B

1. **Substance Name:** Galangal (*Alpinia galangal* and *Alpinia officinarum*), also known as Galangale, Galanga, India Root, Thai Ginger, Rhizoma Galangae. The flavor profile of this spice is a prominent characteristic of Southeast Asian cuisine and may also be used in Indian foods. According to Gernot Katzer's Spice Pages (Attachment 2) "Galangale may be used fresh or dried, which makes a great difference in flavour. Fresh galanga has a pure and refreshing odour and a mildly spicy flavour; it is the galanga of choice for all Thai foods...".
2. **Manufacturer's Name:** The following supplier is the only organic galangal supplier listed in The Organic Pages On-Line. They sell only dried galangal.

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3. **Intended Use:** Galangal is currently used by Amy's Kitchen to add a distinct flavor note to Southeast Asian soups. Dried galangal does not give the same flavor profile. While fresh galangal can give an acceptable flavor profile, it does not have the shelflife required by most food processors. Therefore, galangal frozen-from-fresh is the ideal type of galangal for use by food processors in certain ethnic products.

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4. **Mode of Action:** Discriminating chefs use fresh or frozen galangal and do not feel that recipes made from dried galangal have the same full flavor. Attachment 3 provides support for the unique flavor profile of fresh/frozen galangal as identified by chefs.

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5. **Source and Manufacture:** Galangal, also known as Greater Galangal, Siamese Ginger or Laos Root, is a ginger-like rootstock or rhizome. It is a knobby looking root with a pale-reddish surface, and similarly colored interior with a skin that is woody in texture. Galangal is harvested and processed to give fresh, frozen and dried/powdered preparations as indicated in Attachment 2. The information in this attachment indicates that processing procedures can significantly change the flavor profile of galangal. While fresh can give an acceptable flavor profile, it does not have the shelflife required by most food processors.

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6. **Summary of Previous Reviews:** An internet search yielded no relevant results.
7. **Regulatory Authorities:** As stated in the FDA Code of Federal Regulations (CFR 21 Part 182.10) galangal (galangal) *Alpinia officinarum* is listed as Generally Recognized as Safe (GRAS).
8. **Chemical Abstract Service Number:** Not applicable.
9. **Physical Properties and Mode of Action:** Galangal, also known as Greater Galangal, Siamese Ginger or Laos Root, is a ginger-like rootstock or rhizome. It is a knobby looking root with a pale-reddish surface, and similarly colored interior with a skin that is woody in texture. As a culinary spice, galangal is commonly used in Southeast Asian foods.

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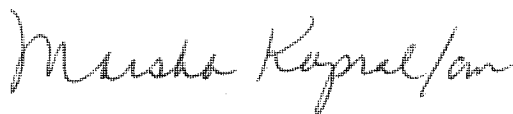
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10. **Safety Information:** Galanga (galangal) *Alpinia officinarum* Hance is GRAS (Generally Recognized as Safe) by the FDA (CFR 21 Section 182.10).
11. **Research Concerning the Availability of Organic Galangal Frozen:** To date, we are unable to find any supplier that carries organic galangal frozen. There is one supplier of organic galangal dried, however, the flavor profile does not meet Amy's Kitchen's requirement.
12. **Justification Statement:** While organic galangal powder is available, we have not yet located any supplier for organic frozen galangal puree. If it does become available, some time would be required to qualify a new supplier and assess the consistency and quality of the new ingredient. For this reason, we would like galangal frozen to be added to 205.606 to allow us time to develop an organic source with acceptable quality.

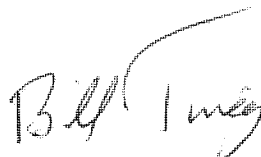
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Conclusion: In order to maintain the flavor profile that Amy's Kitchen's customers desire and expect, we request that "Galangal, frozen" be added to the National List under 205.606 Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic". Amy's Kitchen intends to use organic frozen galangal when supplies are available that have been appropriately harvested, processed and frozen to meet our target flavor profile. When an organic source is not available that meets these requirements, we will provide information to our certifier QAI detailing our attempts to source organic and we will request to use conventional frozen galangal puree. While using a conventional source, we will aggressively continue to attempt to source acceptable organic galangal.

Respectfully submitted:



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**ATTACHMENT 2
DETAILED INFORMATION ON GALANGAL
INCLUDING PRODUCTION METHODS**

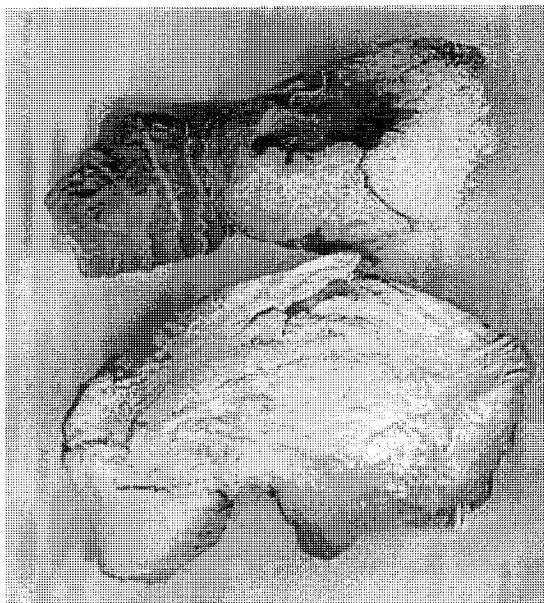
Gernot Katzer's Spice Pages

Information Source: http://www.uni-graz.at/~katzer/engl/Alpi_gal.html

Greater Galangale (*Alpinia galanga* [L.] Willd.)



Fresh galanga rhizome



Dried galanga rhizome

ATTACHMENT 2

DETAILED INFORMATION ON GALANGAL INCLUDING PRODUCTION METHODS

Used plant part

The ginger-like rootstock (rhizome). It is built up from cylindrical subunits (circular cross-section), whose pale-reddish surface is characteristically cross-striped by reddish-brown, small rings. The interior has about the same colour as the skin and is hard and woody in texture.

Plant family

Zingiberaceae (ginger family).

Sensory quality

Warm, sweet, spicy. **Fresh galanga has a distinct fragrance that comes close to fir or pine needles; dried galanga is more spicy and sweet-aromatic, almost like cinnamon.**

Main constituents

The rhizome contains up to 1.5% essential oil (1,8 cineol, α -pinene, eugenol, camphor, methyl cinnamate and sesquiterpenes).

In dried galanga, the essential oil has quantitatively different composition than in fresh one. Whereas α -pinene, 1,8-cineol, α -bergamotene, *trans*- β -farnesene and β -bisabolene seem to contribute to the taste of fresh galanga equally, **the dried rhizome shows lesser variety in aroma components** (cineol and farnesene, mostly). (Phytochemistry, 24, 93, 1985)

The resin causing the pungent taste (formerly called galangol or alpinol) consists of several diarylheptanoids and phenylalkanones (the latter are also found in ginger and grains of paradise). Furthermore, the rhizome is high in starch.

Origin

South East Asia, probably southern China; it is now cultivated in Indochina, Thailand, Malaysia and Indonesia.

Greater galangale, mostly referred to simply as galangale or galanga, is a very popular spice in whole South East Asia and especially typical for the cuisine of Thailand. It is also known and used in Malaysia, Indonesia, Cambodia, Vietnam and Southern China. Chinese *five spice powder* is sometimes enhanced with galangale (see star anise). In Western countries, however, galanga is not well known, at least in our days; it has, however, been a valued spice in the early Middle-ages.

ATTACHMENT 2

DETAILED INFORMATION ON GALANGAL INCLUDING PRODUCTION METHODS

Galangale may be used fresh or dried, which makes a great difference in flavour.

Fresh galanga has a pure and refreshing odour and a mildly spicy flavour; it is the galanga of choice for all Thai foods, where thin slices of galanga are often added to soups, e.g., to the well-known *tom khaa* [ต้มข่า] which basically is a variant of *tom yam* [ต้มยำ] (kaffir lime) with galanga and coconut milk. Moreover, galanga is often used, finely cut or chopped, for stir-fries; and last but not least, ground fresh galanga rhizome is an essential ingredient in most *curry pastes* (see coconut for a discussion on these typical Thai flavouring). Like ginger, its aroma merges well with garlic.

Dried and powdered galanga is less fresh but more spicy, something in between of ginger and cinnamon. Dried galanga is also sold in form of slices that must be reconstituted in warm water and come closer to fresh galanga in their flavour.

In most South East Asian countries **dried galanga is employed only whenever fresh galanga is not available.** Indonesians, for example, frequently use slices or powder of the fresh or dried rhizome, e.g., for *nasi goreng* (fried rice with vegetables and meat) or for the characteristically sweet Jawanese curries (see tamarind).

Galangale is sometimes confused with other spices of the ginger family; see lesser galangale for details. **Its taste and appearance are, however, characteristic; it cannot be substituted by any other spice.**

ATTACHMENT 3 USE OF GALANGAL IN COOKING

Shiok Far-eastern Cuisine

Information Source: <http://shiokfood.com/>

Recipe: Tom Yam Kai Soup

WHAT YOU NEED

Galangal - 1 tablespoon (**fresh is preferable, dried will do in a pinch** - soak dried in warm water prior to use)

NOTE: This indicates that this chef recognizes the difference in quality between fresh vs. dried galangal.

AA

INTERVIEW WITH JEAN-GEORGES VONGERICHTEN

Information Source: <http://www.sallys-place.com/studio/vongerichten.htm>

Sally and Antonia interview Jean-Georges Vongerichten (executive chef and owner of jo-jo and Lipstick Cafe in New York City and Vong in New York City and London).

Chicken and Coconut Milk Soup with Galangal

- 2 stalks lemongrass
- 6 stemmed whole Thai red and/or green bird pepper chiles
- 2 tablespoons peanut oil
- 1 cup thinly sliced onion
- 3 slices **fresh or thawed frozen galangal**, each the size of a quarter
- 1 tablespoon red curry paste (Vong uses "Mac Ploy" brand)
- 2 cloves garlic, minced
- 4 cups chicken stock
- 2 whole chicken breasts, skinned, boned, and trimmed
- 2 cups canned unsweetened coconut milk
- 3 tablespoons nam pla (Thai fish sauce)
- 3 tablespoons fresh lime juice
- 8 fresh or frozen Kaffir lime leaves
- salt and freshly ground black pepper to taste
- 2 scallion, sliced very thin on the diagonal
- 2 tablespoons chopped fresh coriander leaves

NOTE: This indicates that this chef considers fresh and frozen to be equivalent/substitutes.