



## Science of Spices: Turmeric

### TURMERIC

Woody • Floral • Bitter

*Turmeric is a leafy tropical plant in the ginger family, which grows as a perennial in the wild.*



### General Facts

#### BOTANICAL NAME

Curcuma longa

#### MAJOR FLAVOR COMPOUND

Turmerone & ar-turmerone

#### PARTS USED

Rhizomes (fresh, dried, or powdered).

#### REGION OF CULTIVATION

Turmeric is thought to be native to India. It is cultivated mainly in that country (which produces 90% of all turmeric powder), but also in China, Thailand, Cambodia, Malaysia, Indonesia, and the Philippines.

#### METHOD OF CULTIVATION

This annual crop is grown in heavily manured furrows; rhizomes are harvested when the leaves turn yellow.

#### PREPARATION

Rhizomes are boiled and dried; they are then sold whole or ground to a powder

#### NON-CULINARY USES

Fabric dye, coloring agent in cosmetics; in traditional medicine as an anti-inflammatory and antimicrobial agent.

#### POWDER

There are two main types: Madras in brighter yellow and sweeter in taste than the pungent, earthy, ochre colored Alleppey turmeric, which is more prized.

#### FRESH

Zesty flavors are more prominent in raw rhizomes. Peel and then chop or grate them, like ginger.



# Turmeric



### Kitchen Creativity



Turmeric works well in complex blends, where its pungent earthiness acts as a base to help to bind other flavors together. Add sparingly if it is to be used on its own, so that the bitter notes do not overwhelm.

#### RELEASING THE FLAVOR

*Frying in fat causes flavor compound molecules to disperse and form new compounds. This only happens above 266°F (130°C), so does not occur in boiling water.*



### Food Partners



#### White fish.

Stir together turmeric, yogurt, and crushed garlic, and then spoon over fish fillets before grilling.



#### Lamb and pork.

Combine with paprika, lightly crushed cumin, and oil for a meat rub, and massage into the skin before roasting.



#### Squash and cauliflower.

Mix a teaspoonful with oil and honey, and toss with vegetables before roasting.



#### White chocolate.

Add a good pinch to cupcake batter along with chunks of white chocolate.



#### Pickles.

Include this slices of fresh rhizome in fish and vegetable pickles.



### Blends to Try

#### Hawaij

*A curry-like Yemeni blend, popular in slow-cooked meat dishes and soups and as a spice rub.*

- 1 tbsp. black peppercorns
- 7 tsp. cumin seeds
- 1 tbsp. cardamom seeds
- 1 tbsp. coriander seeds
- 2 tbsp. ground turmeric

Grind the whole spices and combine with the turmeric.

#### Niter kibbeh

*This spiced clarified butter is used as the flavorful base fat for many regional African dishes, including hearty wat meat stews.*

- 1 lb. 2 oz. (500g) unsalted butter
- 1 medium onion, finely chopped
- 2 garlic cloves, finely chopped
- 1 tbsp. grated ginger
- 1 tsp. fenugreek seeds
- 1 tsp. ground cumin
- 1 tsp. cardamom seeds
- ½ tsp. turmeric powder
- 1 tsp. dried oregano
- 6 basil leaves
- 4 sage leaves

Melt the butter in a pan over medium-low heat. Add the remaining ingredients and cook, stirring, for 20 minutes. Strain through muslin into a sterilized jar.

#### Malaysian fish curry paste

*This classic fusion paste can be used to make a quick fish curry by mixing it with coconut milk and simmering with chunks of any firm white fish.*

- 2 tsp. coriander seeds
- 1 tsp. cumin seeds
- ½ tsp. fennel seeds
- ½ tsp. black peppercorns
- 4 medium dried chillies
- ½ tsp. turmeric powder
- thumb-sized piece of galangla, peeled and chopped
- 3 garlic cloves, chopped
- 5 tbsp. shallot, chopped

Lightly roast the whole dry spices in a frying pan, leave to cool, then grind to a powder along with turmeric. In a food processor or using a hand blender, blitz together the galangal, garlic, and shallots with a splash of water to form a puree. Mix the dry masala with the fresh puree to form curry paste.



Source: Dr. Stuart Farrimond 'The Science of Spices'.