



Culinary Foundations

SPICE LECTURE NOTES

Allspice- Allspice is the aromatic berry of the allspice tree. It is not a combination of spices but one spice that is reminiscent of cloves, cinnamon, and nutmeg. It is slightly sweet and slightly piquant. Jamaica is the largest producer of allspice today. It grows on a tropical evergreen tree. The spice itself has pea size berries that are hard and brown in color. The berries are picked green and left to dry in the sun. Allspice can be used both in sweet and savory dishes. It is commonly found in jerk seasonings and ras el hanout.

Anise Seeds- These are small dark green seeds from a plant that is a member of the parsley family. They have a sweet licorice taste. Traditionally used as a digestive. Found commonly in Southeast Asian and Indian cuisines.

Annatto - Annatto are the tiny seeds from the annatto tree, *Bixa orellana*. Sometimes referred to as Achiote, these seeds are what is used to make red dye #1. They have a very musky scent. A triangular shaped pod contains many small, hard red seeds. The seeds are also triangular, or square in shape. It gives foods a rich, golden hue. Annatto is also used to give butter, margarine, and sometimes cheese their color.

Bay leaves - Bay leaves are the leaves from the sweet bay laurel, or sweet laurel tree. Leaves that are from 1 to 2 inches long are Turkish bay leaves, and leaves that grow 2-3 inches long are Californian bay leaves. Bay leaves are commonly associated with French cooking. Most commonly, they are used in Bouquet Garnis. If cooking with bay leaves, they need to be removed when cooking is finished, and before service. They are hard to swallow and cannot be digested. The overuse of bay leaves will give the dish a bitter flavor.

Caraway seeds - Caraway seeds are small, aromatic seeds that have a nutty, delicate anise flavor. The seeds are 1/5 of an inch long, and are yellowish brown, with lateral ridges. They have a warm, sharp taste. Used to flavor rye bread. Widely used in German, Austrian, and Hungarian cuisines.

Cardamom- Cardamom is a middle Eastern spice that is originally native to India. It is related to ginger and is considered the “queen of spices.” Cardamom come in three varieties: white, green and black. The seed grow with a pod or shell. The outer shell has little flavor, whereas the seed is intensely flavorful. Black cardamom is a staple in African cooking and has a unique smoky flavor. Green cardamom is light pistachio and is the size of a cranberry. Cardamom is third expensive spice in the world under saffron and vanilla. Is commonly used in such dishes such as West Indian curry, garam masala, kulfie, German pferrernuse cookies, Russian liquors, Swedish meatballs, and gingerbread.

Cayenne pepper - Cayenne is made from dried red chili peppers. It is named from Cayenne in French Guiana. It is found in Tabasco sauce, chili sauce, and curry powders.



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Chili powder - Chili powder is a blend of various spices, usually cumin, oregano, paprika, cloves, and garlic, and dried hot pepper.

Celery seeds/celery salt- Celery seed is the seeds of a wild form of celery. They are pungent and should be used sparingly. Other uses for celery include celery salt, which is ground, dried celeriac and other spices.

Cinnamon- Cinnamon is the second most used spice in the world, next to pepper. Its first earliest recorded use was in China around 2500 BC. Cinnamon is the dried bark from the tropical evergreen tree *Cinnamomum zeylanicum*, commonly referred to as ceylon. Another form is *C. cassia*. All these cinnamon's share a common chemical compound, cinamaldehyde, which is its essential oil. Powder and chunk varieties of cinnamon come from the lower bark of the tree, and the stick varieties come from the bark of the upper branches. Cinnamon oil comes from the pods of the tree. Cinnamon has an affinity for sweets, lamb, and spicy dishes.

Clove- Clove is the dried, unopened berries of the tropical evergreen tree. They are reddish brown and nail shaped. They have a pungent, long-lasting taste. It was used to cover-up the taste of old food. They are used in both sweet and savory dishes. Cloves are commonly linked to Cinnamon and nutmeg, and are in spices such as curry, garam masala, ras-el-hanot, and Chinese five spice. Cloves have an anesthetic property.

Coriander- Coriander is the seeds of the cilantro plant. It is one of the world's oldest spices and comes from the Mediterranean basin and the orient. The coriander seed is related to caraway, fennel, dill and anise. The seeds are small, 1/8 of an inch, with latitude ridges. They are yellow tan in color. When they are dried, they have a musty lemon like fragrance. They give sweet, spicy, strong flavor. They come whole, and ground. Coriander seeds are used in Indian food, as well as pickling. Ground coriander is used in Scandinavian foods.

Cumin- Cumin is a member of the parsley and carrot family. The long spindle shaped seeds are yellowish brown with longitudinal ridge and are hot, piquant, and have a slightly bitter taste. The seeds are very "oil rich." Cumin seeds look similar to caraway seeds. Cumin is one of the oldest spices on earth. The flavor of cumin has an affinity for bread and is used as a condiment. Cumin is common in Indian curries, garam masala, Middle Eastern dishes, and Mexican food. Cumin is found in the common in Ras-el-hanout.

Curry powder- A blend of spices, Native to India. The blend will vary from region to region. Sometimes, they are hot, sometimes they are not. Almost all curries contain cinnamon, coriander, cumin, turmeric, pepper, cardamom, ginger, nutmeg, and cloves. Some also contain mace, aniseed, caraway, fennel, fenugreek, bay leaf, poppy seed, saffron, cayenne pepper, or mustard powder. The colors might also range from brown to red, to white, to green. Curry also



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refers to the dish, which is a stew-like mixture of fish, meat, lentil, and vegetables, seasoned with the curry powder.

Dill Seeds- The dill seeds have a strong, bitter flavor. They are flat and tan and actually, the dried fruit of the plant. They are used in pickling, curing, and baking. (Dill seeds are toxic to birds). The “leaves” are also known as weed, since they have a feathery look. The plant produces yellow flowers.

Fennel Seeds- Fennel seeds are the seeds of the fennel plant, produced from large yellow flowers, similar to dill flowers. They are small and pale green, about 1/8 of an inch in length. They have a slight anise flavor.

Fenugreek- Fenugreek seeds are a pungent, slightly bitter, slightly sweet seed whose leaves are also edible. Found commonly in Middle Eastern, Indian, and Asia cuisines as well as curries. Some people say it smells slightly of maple syrup.

Garlic- Garlic is a member of the lily family (alliums). One head of garlic (called a bulb) is 12-16 cloves of garlic. The head is covered in a paper-thin white membrane, as well as each clove. The longer you cook garlic, the longer the flavor will deviate

Ginger- Ginger is an edible rhizome of the tropical herb *Zingiber officinale*. It is gnarly and has papery skin with pale greenish to yellow to ivory flesh. Ginger's origins are so old that it cannot be traced back. The flavor of ginger root can be described as spicy. Items that are commonly made with ginger are gingerbread, ginger snaps ginger ale, ginger beer, and pickled ginger.

Juniper Berries- Juniper Berries are small, blue-black berries that grow on an evergreen Juniper tree. These small berries, are not related to the fleshy berries, but are more considered a spice. Juniper berries are very astringent, and too bitter to eat raw. They are first dried, and then sometimes crushed. The berries have a resinous smell, and are quite pungent. A juniper berry looks similar to a shriveled blueberry. Gin is made from juniper berries, as well as some beers, aquavits, and schnapps. Juniper berries are quite often associated with Scandinavian cooking.

Lavender - Lavender, a member of the mint family. The lavender plant produces stalks with small purple (lavender colored) buds. Commonly, lavenders, only been found in soaps, perfumes, but it is also one of the main ingredients of Herbes de Provence. It can also be found in baked goods and sweets.

Mustard- Mustard is the seed of an annual herb native to the Mediterranean basin. The mustard seed is small and is grown with in a stick shaped pod. Mustard seeds are classified by color. The smaller and darker the seed is, the hotter and more flavorful it is. Mustard seeds are



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flavorless, unless crushed to release its oils. Black mustard, *brassica nigra*, is found in the Mideast and Asia. It is the most potent and difficult to harvest. It has a high amount of essential oils. Brown mustard is a native to the Himalayas. Subspecies of this plant range in color from pale to dark brown. It is a highly aromatic mustard seed.

White mustard, *sinapis alba*, is actually pale yellow. It can also be referred to as yellow mustard. The seeds are very large and very bitter. There is very little aroma. The plant grows to 12 to thirty inches. Black and brown mustard seed oil contains *myronate* and *myrosin*. When crushed and added to water, they release volatile and piquant essences. White mustard seeds do not contain *myronate*. Acid slightly retards oils intensity. Many prepared mustards are made with vinegar, wine or ale. Chinese and Japanese mustards are made with water, which is why they are very intensive.

Nutmeg and Mace come from the same plant. They grow right next to each other, therefore, they have similar tastes. A seed, it is enclosed in a hard, yellow outer coating. In this form, it resembles an apricot. When it is ripe, the coating cracks. Inside you see a lacy red- orange aril. The aril, when dried, is mace. It surrounds a hard, wrinkly oval shaped gray brown kernel. The kernel is then dried and inside is a nutmeg. The nutmeg is hard, yet porous. It is brown and slightly wrinkly, and about the size of a nickel. Mace is more delicate in flavor, and usually more expensive. It is brilliant red and orange in color, but when it dries, it turns an amber color. Nutmeg is also used in the spice mixture of ras el hanout, in Africa, and in India, it is used to make Garam masala. In Italy, it is used in pasta fillings; the French uses it to make béchamel and blanquette de veau. It is best to buy nutmeg in its whole form, and then grate yourself. Pre-ground nutmeg has a tendency to lose its flavor easily.

Paprika- Paprika (*capsicum annum*) is a mild chili pepper that is common dried and ground into a fine, red powder. They are exquisite delicate, noble sweet, semisweet, rose, delicatessen, and hot. The mild paprika comes from grinding the pepper that has had its seeds and veins removed. The hotter paprika comes from grinding the whole pepper. The stronger it is, the darker in color it will be. Paprika can range in color from orange, to red, to blood red. Paprika is commonly associated with Hungarian food, especially goulash.

Peppercorns- The peppercorn seed comes from a vine that is native to India. Tellicherry and Lampong are the two best black peppercorns available today. Green peppercorns are unripe, and not very spicy. They have a slight fruit flavor and are usually preserved in brine. Black peppercorns are half ripe, dried peppercorns. They are the most pungent. Pink and red peppercorns come from a different species than black peppercorns, that of *schinus molle*. These are grown in South America. They have a delicate, fragrant, slightly pungent flavor, which is lost quite rapidly. White peppercorns are very ripe red peppercorns that are soaked in salt water to dissolve the outer shell, and then are dried. White peppercorns are milder than black ones.



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Gray peppercorns are also very mild. They are very rare and always sold in the ground form. Gray peppercorns are black peppercorns that are only slightly washed. Peppercorns are the most used spice in the world.

Poppy seed- The poppy seed is a small, bluish gray seeds of the poppy flower. (White flower, not orange). Very crunchy with a nutty flavor. Commonly used in dishes from Central Europe, middle East, and India. The poppy seed comes from the same plant that produces opium, and have narcotic properties, so be wary of when you eat them.

Saffron- Saffron is a variety of crocus that is believed to have originated in Asia Minor. It is the most ancient of all spices. The spice saffron is the stigmas from the crocus plant. It takes approximately 100,000 flowers to produce just under 1 pound of saffron threads. This is why saffron is the most expensive spice in the world. Saffron turns things a brilliant yellow orange color. Saffron is commonly associated with fish and shellfish and rice dishes. Saffron is also known as the king of spices.

Sesame- Sesame is an annual plant that grows in hot countries. It is possible that it is the first condiment. The sesame plant is a thick, bushy plant that is approximately 2 feet high. It produces white or pink flowers. It has small pods that contain numerous flat seeds. They range in color from white, yellow, red, or black. When the seeds are ready, the pods will burst open. This is where the term “open sesame” came from. The sesame plant produces little seed. Approximately 1/2 the weight of the seed is oil. It is very prone to rancidity. Sesame oil is odorless.

Star anise- Star anise is a dried fruit of an evergreen tree that is a member of the Magnolia family which grows wild in Southern China. The fruit has 8 points, and each point contains a seed. Star anise is found in Chinese 5 Spice, and is used in many things such as liquors, chewing gum, and cough syrups. Star anise is common in China and Vietnamese cooking. A licorice like taste.

Turmeric- Turmeric is the root of the tuber plant related to ginger. A bitter, pungent flavor, and a rusty yellow color, commonly found in Middle Eastern food, and a main ingredient in curry powder. Sometimes put into mustard to give it a bright yellow color.

Vanilla- Vanilla is the fruit of the celadon- colored orchid that is native to tropic America, *vanilla planfoera*. The bean is hard and must be cut in half and the center scraped out for the flavor. Vanilla is the second most expensive spice in the world.