Eggplant is a vegetable long prized for its deeply purple, glossy beauty as well as its unique taste and texture. Eggplants are now available in markets throughout the year, but they are at their very best from August through October when they are in season. Eggplants belong to the nightshade family of vegetables, which also includes tomatoes, sweet peppers, tobacco plant (Nicotiana) and potatoes. They grow in a manner much like tomatoes, hanging from the vines of a plant that grows several feet in height. While the different varieties do range slightly in taste and texture, one can generally describe the eggplant as having a pleasantly bitter taste and spongy texture.

The fruit is botanically classified as a berry, and contains numerous small, soft seeds, which are edible, but are bitter because they contain nicotinoid alkaloids, unsurprising as it is a close relative of tobacco.
Eggplant is a big favorite in many areas of the South. Thomas Jefferson, who experimented with many varieties of plants in his Virginia garden, is credited with the introduction of eggplant to North America.

Of Asian origin, the early varieties were very bitter to the taste, but cultivation and crossbreeding have greatly improved the flavor. One of the most popular varieties of eggplant in North America looks like a pear-shaped egg, a characteristic from which its name is derived. The skin is glossy and deep purple in color, while the flesh is cream colored and spongy in consistency. Contained within the flesh are seeds arranged in a conical pattern. In addition to this variety, eggplant is also available in a cornucopia of other colors including lavender, jade green, orange, and yellow-white, as well as in sizes and shapes that range from that of a small tomato to a large zucchini.

While the different varieties do vary slightly in taste and texture, one can generally describe the eggplant as having a pleasantly bitter taste and spongy texture. In many recipes, eggplant fulfills the role of being a complementary ingredient that balances the surrounding flavors of the other more pronounced ingredients.

Eggplant is delicious hot or cold and can be enjoyed marinated, stuffed, roasted, grilled, fried, in a casserole, in stews, or on brochettes.

**History** - The ancient ancestors of eggplant grew wild in India and has been cultivated in southern and eastern Asia since prehistory (the first known written record of the plant is found in Qí mín yào shù, an ancient Chinese agricultural treatise completed in 544 BC.). Eggplant was introduced to Africa before the Middle Ages and then into Italy, the country with which it has long been associated, in the 14th C. (the numerous Arabic and North African names for it, along with the lack of the ancient Greek and Roman names, indicate it was introduced throughout the Mediterranean area by the Arabs in the early Middle Ages) while the scientific name *Solanum melongena* is derived from a 16th C. Arabic term for one variety. It subsequently spread throughout Europe and the Middle East and, centuries later, was brought to the Western Hemisphere by European explorers. Today, Italy, Turkey, Egypt, China and Japan are the leading growers of eggplant.

Although it has a long and rich history, eggplant did not always hold the revered place in food culture that it does today, especially in European cuisines. As a result of the overly bitter taste of the early varieties, it seems that people also felt that it had a bitter disposition and the eggplant held the undeserved and inauspicious reputation of being able to cause insanity, leprosy and cancer.
For centuries after its introduction into Europe, eggplant was used more as a decorative garden plant than as a food. Not until new varieties were developed in the 18th C., did eggplant lose its bitter taste and bitter reputation, and take its now esteemed place in the cuisines of many European countries.

**How to Select and Store** - When choosing eggplant, look for heavy for their size, firm fruit with unblemished skin. Their skin should be smooth and shiny, and their color, whether it be purple, white or green, should be vivid. They should also be free of discoloration, scars, and bruises, which usually indicate that the flesh beneath has become damaged and possibly decayed. The stem and cap, on either end of the eggplant, should be bright green in color. As you would with other fruits and vegetables, avoid purchasing eggplant that has been waxed. To test for the ripeness of an eggplant, gently press the skin with the pad of your thumb. If it springs back, the eggplant is ripe, while if an indentation remains, it is not.

An old folk wisdom saying has it that male eggplants have fewer seeds (which are often bitter) than the female and they have a rounder, smoother blossom end or base; also, the blossom end of a female eggplant is generally indented. In truth, vegetables such as eggplant, peppers, tomatoes, cucumbers and squash, can't be considered - botanically speaking - "male or female." Male pollen was transferred to female parts of the flower, resulting in the fruit we eat. Different varieties of eggplant may be more bitter and contain more noticeable seeds than others. Also, as an eggplant fruit matures, the seeds become more noticeable. But it is a folk wisdom worth some attention: eggplants have a dimple at the blossom end. The dimple can be very round or oval in shape. The round ones seem to have more seeds and tend to be less meaty, so select the oval dimpled eggplant.

Although they look hardy, eggplants are actually very perishable and care should be taken in their storage. Eggplants are sensitive to both heat and cold and should ideally be stored at around 50 degrees Fahrenheit (10 degrees Celsius). Do not cut eggplant before you store it as it perishes quickly once its skin has been punctured or its inner flesh exposed. Place uncut and unwashed eggplant in a plastic bag and store in the refrigerator crisper where it will keep for a few days. If it is too large for the crisper, do not try to force it in; this will damage the skin and cause the eggplant to spoil and decay. Instead, place it on a shelf within the refrigerator. If you purchase eggplant that is wrapped in plastic film, remove it as soon as possible since it will inhibit the eggplant from breathing and degrade its freshness.

Different varieties of the plant produce fruit of different size, shape and color, though typically purple. There are even orange varieties. The most widely cultivated varieties (cultivars) in Europe and North America today are elongated ovoid, 12–25 cm wide (4½ to 9 inches) and 6–9 cm broad (2 to 4 inches) in a dark purple skin.
A much wider range of shapes, sizes and colors is grown in India and elsewhere in Asia. Larger varieties weighing up to a kilogram (2.2 pounds) grow in the region between the Ganges and Yamuna rivers, while smaller varieties are found elsewhere. Colors vary from white to yellow or green as well as reddish-purple and dark purple. Some cultivars have a color gradient, from white at the stem to bright pink to deep purple or even black. Green or purple cultivars in white striping also exist. Chinese varieties are commonly shaped like a narrower, slightly pendulous cucumber, and were sometimes called Japanese eggplants in North America.

Oval or elongated oval-shaped and black-skinned cultivars include Harris Special Hibush, Burpee Hybrid, Black Magic, Classic, Dusky, and Black Beauty. Slim cultivars in purple-black skin include Little Fingers, Ichiban, Pingtung Long, and Tycoon; in green skin Louisiana Long Green and Thai (Long) Green; in white skin Dourga. Traditional, white-skinned, egg-shaped cultivars include Casper and Easter Egg. Bicolored cultivars with color gradient include Rosa Bianca and Violetta di Firenze. Bicolored cultivars in striping include Listada de Gandia and Udumalapet. In some parts of India, miniature varieties (most commonly called vengan) are popular. A particular variety of green brinjal known as Matti Gulla is grown in Matti village of Udupi district in Karnataka state in India.

**Tips for Preparing Eggplant** - When cutting an eggplant, use a stainless steel knife as carbon steel will react with its phytonutrients and cause it to turn black. Wash the eggplant first and then cut off the ends. Most eggplants can be eaten either with or without their skin. However, the larger ones and those that are white in color generally have tough skins that may not be palatable. To remove skin, you can peel it before cutting or if you are baking it, you can scoop out the flesh once it is cooked.

To tenderize the flesh's texture and reduce some of its naturally occurring bitter taste, you can sweat the eggplant by salting it. After cutting the eggplant into the desired size and shape, sprinkle it with salt and allow it to rest for about 30 minutes. This process will pull out some of its water content and make it less permeable to absorbing any oil used in cooking. Rinsing the eggplant after "sweating" will remove most of the salt.

The fruit is capable of absorbing large amounts of cooking fats and sauces, allowing for very rich dishes, but the salting process will reduce the amount of oil absorbed. The fruit flesh is smooth and, when cooked, will develop a rich, complex flavor; as in the related tomato, the numerous seeds are soft and edible along with the rest of the fruit. The thin skin is also edible, so peeling is not required.
The plant is used in cuisines from Japan to Spain. It is often stewed, as in the French ratatouille, the Italian parmigiana di melanzane, the Turkish musakka, and Middle-Eastern and South Asian dishes. Eggplants can also be battered before deep-frying and served with a sauce made of tahini and tamarind. In Iranian cuisine, it can be blended with whey as kashk e-bademjan, tomatoes as mirza ghasemi or made into stew as khoresh-e-bademjan. It can be sliced and deep-fried, then served with plain yoghurt, (optionally) topped with a tomato and garlic sauce, such as in the Turkish dish patlican kizartması or without yoghurt as in patlican şaksuka. However, arguably the most famous Turkish eggplant dish is Imam bayıldı. It may also be roasted in its skin until charred, so the pulp can be removed and blended with other ingredients, such as lemon, tahini, and garlic, as in the Middle Eastern dish baba ghanoush and the similar Greek dish melitzanosalata. Grilled, mashed and mixed with onions, tomatoes and spices make the Indian dish baingan ka Bhartha or gojju, similar to salată de vinete in Romania, while a mix of roasted eggplant, roasted red peppers, chopped onions, tomatoes, mushrooms, carrots, celery and spices is called zacuscă in Romania or ajvar in Serbia and the Balkans.

The fruit can also be stuffed with meat, rice, or other fillings and then baked. In the Caucasus, for example, it is fried and stuffed with walnut paste to make nигvizianи badrijani. It can also be found in Chinese cuisine, braised, stewed, steamed or stuffed. As a native plant, it is widely used in Indian cuisine, for example in sambhar, dalma (a dal preparation with vegetables, native to Orissa), chutney, curries, and achaar. Owing to its versatile nature and wide use in both everyday and festive Indian food, it is often described as the 'King of Vegetables'.

GM warning - Monsanto, a multinational company based in the USA, has developed a transgenic eggplant called "Bt brinjal" in partnership with India's Maharashtra Hybrid Seeds Company (Mahyco). Bt brinjal has a gene from the soil bacterium Bacillus thuringiensis inserted into it. This variety was designed to give the plant resistance against lepidopteran insects like the brinjal fruit and shoot borer (Leucinodes orbonalis) and fruit borer (Helicoverpa armigera). Some of the cultivars of brinjal that are alleged to have been engineered include: Malpur local, Manjari gota, Kudachi local, Udupi local, 112 GO, and Pabkavi local. It was approved for commercialization in India in 2009, but after a public outcry the Indian government applied a moratorium on its release.

Health Benefits - Eggplant is a very good source of dietary fiber, potassium, manganese, copper and thiamin (vitamin B1). It is also a good source of vitamin B6, folate, magnesium and niacin. Eggplant also contains phytonutrients such as nasunin and chlorogenic acid.
In addition to featuring a host of vitamins and minerals, eggplant also contains important phytonutrients, many which have antioxidant activity. Phytonutrients contained in eggplant include phenolic compounds, such caffeic and chlorogenic acid, and flavonoids, such as nasunin. Nasunin is a potent antioxidant and free radical scavenger that has been shown to protect cell membranes from damage. In animal studies, nasunin has been found to protect the lipids (fats) in brain cell membranes. Cell membranes are almost entirely composed of lipids and are responsible for protecting the cell from free radicals, letting nutrients in and wastes out, and receiving instructions from messenger molecules that tell the cell which activities it should perform. Nasunin is not only a potent free-radical scavenger, but is also an iron chelator. By chelating iron, nasunin lessens free radical formation with numerous beneficial results, including protecting blood cholesterol (which is also a type of lipid or fat) from peroxidation; preventing cellular damage that can promote cancer; and lessening free radical damage in joints, which is a primary factor in rheumatoid arthritis.

Researchers at the US Agricultural Service in Beltsville, Maryland, have found that eggplants are rich sources of phenolic compounds that function as antioxidants. Plants form such compounds to protect themselves against oxidative stress from exposure to the elements, as well as from infection by bacteria and fungi. The good news concerning eggplant is that the predominant phenolic compound found in all varieties tested is chlorogenic acid, which is one of the most potent free radical scavengers found in plant tissues. Benefits attributed to chlorogenic acid include antimutagenic (anti-cancer), antimicrobial, anti-LDL (bad cholesterol) and antiviral activities.

When laboratory animals with high cholesterol were given eggplant juice, their blood cholesterol, the cholesterol in their artery walls and the cholesterol in their aortas (the aorta is the artery that returns blood from the heart back into circulation into the body) was significantly reduced, while the walls of their blood vessels relaxed, improving blood flow. These positive effects were likely due not only to nasunin but also to several other terpene phytonutrients in eggplant.

**Eggplant and Oxalates** - Eggplant is among a small number of foods that contain measurable amounts of oxalates, naturally-occurring substances found in plants, animals, and human beings. When oxalates become too concentrated in body fluids, they can crystallize and cause health problems. For this reason, individuals with already existing and untreated kidney or gallbladder problems may want to avoid eating eggplant. Laboratory studies have shown that oxalates may also interfere with absorption of calcium from the body. Yet, in every peer-reviewed research study we’ve seen, the ability of oxalates to lower calcium absorption is relatively small and definitely does not outweigh the ability of oxalate-containing foods to contribute calcium to the meal plan.