played in the Glasshouse, and over 600 have earned the RHS Award of Garden Merit (AGM), including *Platycerium bifurcatum*: one individual can be traced back to the Society’s garden at Chiswick, which was eventually sold in 1904. Plants are awarded the AGM after being carefully assessed by RHS plant committees, and most have undergone the careful scrutiny of RHS plant trials, to comparatively assess ease of growth, amount of bloom and resistance to pests and diseases. *Begonia Rex Cultorum Group* is an example of the plants that undergo the scrutiny of formal plant variety trial under glass. The resulting Trials Bulletin (www.rhs.org.uk/plants/documents/begonia-rex06L0.pdf) provides gardeners with up-to-date information on the best plants available to them.

The Glasshouse ‘plant theatre’ shows off special seasonal collections: orchids in January and February, *Fuchsia* in July, *Solenostemon* (coleus) in August, *Nerine sarniensis* in October, charm and cascade chrysanthemums in November. But throughout the Glasshouse, there is a sense of continual change in the displays, bringing out spectacular seasonal collections from the Service House for incorporation into the main structural planting.

Wisley is a place to celebrate people’s appreciation for flowering plants, the culture, the trade, and the science that are inspired by that appreciation, and the opportunities that may bring to explore another dimension in environmental education. The Glasshouse at Wisley adds immensely to the excitement of that experience.

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**History and Iconography of Eggplant**

**Marie-Christine Daunay and Jules Janick**

Eggplant or aubergine (*Solanum melongena* L., Solanaceae), is indigenous to a vast area stretching from northeast India and Burma, to Northern Thailand, Laos, Viet Nam and Southwest China and wild plants can still be found in these locations. Eggplant is a major fruit vegetable with world production exceeding 31 million tonnes (Mt). Leading producers are China (17 Mt) and India (8 Mt), Egypt (1 Mt), Turkey (0.9 Mt), Japan and Italy (0.4 Mt each). Eggplant is particularly favoured in Asia where it has been cultivated for millennia, and in India it is considered King of Vegetables.

Greenhouses are preferred to open field in areas of intensive production, such as Spain (Almeria area) and Italy (Sicily), which since the 1980s have specialized in eggplant production (Almeria area) and Italy (Sicily), which since the 1980s have specialized in eggplant production in The Netherlands, but this is exceptional. There are several related cultivated *Solanum* species also referred to as eggplants, namely the African Gboma eggplant, *S. macrocarpon* (section *Melongena*), and the African scarlet eggplant, *S. aethiopicum* (section *Oliganthes*) (Daunay et al., 2001, 2007). This paper will concentrate on an illustrated history of *S. melongena*.

There is a wealth of eggplant common names. The word *eggplant* in English dates to the British occupation of India, where white egg-shaped fruits were very popular in some areas, although in the UK it is now commonly referred to as aubergine. There are other equivalent vernacular names related to the resemblance of the fruits with eggs such as *Eierfrucht* (German), and *plante aux œufs* (French). A great number of other names are transliterations from Sanscrit, to Persian, Arabic and Turkish, and later to European languages. Unravelling the linguistic relationship is complex. According to De Candolle (1883) and later authors, *vaattingan* in Sanskrit, *badanjan* in Hindustani are possibly the source of *baadan*gan and *badanj*an in Persian; which gave rise to *bedengian*, *baadanjan*, *melongena* in Arabic; *pattijan* in Turkish, *badnjan* in Georgian, *tabendjats* in Berber, *berenjena* in Spanish, *beringela* in Portuguese, and *aubergine* in French. The complexity of the study of eggplant names is illustrated by Arveiller (1969), who devotes 20 pages for a discussion of only French names! *Birija*, used in India, derives from the Portuguese *beringela* coined when the Portuguese were the masters of the trade between India and Europe during the 16th and 17th centuries. In the Renaissance the nomenclature became schizophrenic and eggplants were referred to both as *mala insana* (mad apple), the origin of the Italian *melanzana* and the Greek *melitzane*, and *poma amoris* (love apple). a name shared with tomato during the 16th century.

Eggplant was domesticated from wild forms in the Indo-Burma region with indications that it was cultivated in antiquity. Several Sanskrit documents, dated from as early as 300 BCE, mention this plant with various descriptive words, which suggest its wide popularity as food and medicine: *shakasreshta* means delicious vegetable; *rajakushmand* means the royal “melon,” *niphala* refers to the “blue” fruit, *kantapatrika* and *nidralu* refer to the narcotic or hypnotic properties of parts of the plant (*Nadkarni, 1927*). In the Ayurvedic, a Hindi system of medicine, white types were recommended for diabetic patients, and roots for the treatment of asthma (*Khan, 1979a*).

However, *Markandeya-Purana*, ancient Hindu scripture of the 4th century, includes eggplant among undesirable things (*Khan, 1979b*). Although eggplant images from Ancient India
EASTERN MIGRATION

Eggplant was early adopted in China as a vegetable crop, as attested by its presence in treatises such as the Atlas of Plants in Southern China written during the Western Jin Dynasty (265-316 CE), the Qimí Yiaoshu, a practical handbook of agriculture written at the time of the Southern and Northern Dynasties (420-581) (Z. Xu, pers. commun.), and in the Ti’Min Yao Shu, a work on Agriculture of the 5th century (Bretschneider, 1882, quoted by Hedrick, 1919). Eggplant reached Japan about the 8th century at the time of the Tang dynasty (Allard, 1919). Eggplant reached China about the 8th century (Bretschneider, 1882, quoted by Hedrick, 1919). Eggplant reached Japan about the 8th century at the time of the Tang dynasty (Allard, 1996).

Li Shihzhen, in his 16th century treatise about medicinal herbs, mentions the existence of fruits with various colors (white, yellow, azure, and purple) but adds that eggplant fruits were not regarded by the Chinese as being free from deleterious properties such as the induction of digestive troubles and uterus injury. He describes medicinal preparations based on fruits, peduncles, roots, stalks and leaves for curing diverse ailments such as abscesses, intestinal haemorrhages, and toothache. The earliest Chinese image we have located is a black and white drawing (Fig. 1) of a small plant bearing two globular and possibly white fruits, part of the Yinshan Zhengyao by Hu Sihui (1330), a treatise about the principles of safe food written by the dietician of the Mongol emperors (Buell and Anderson, 2000). Sin Saimdang (1504-1551), mother of Lee Yul Gok, the illustrious Confucian scholar in the Joseon dynasty in Korea, painted beautiful eggplants on a folding screen (Fig. 2) where two plants with oblong fruits are seen, one with a spineless calyx and white fruit and the other with prickly calyx and violet fruits in which the color lightens toward the calyx and is clearly white under the calyx, indicating homozygosity for the recessive allele of the Puc gene (Tatebe, 1939; Janick and Topoleski, 1963), which stops anthocyanin synthesis when light is absent. A Japanese illustration of an eggplant field with people harvesting globose dark fruits (Fig. 3) is displayed in an agricultural treatise dated beginning of the 18th century (Doi, 1991).

WESTERN MIGRATION

Eggplant reached Persia very early but the date is unknown (Encyclopedia Iranica, 1988). The dark purple eggplant was cultivated and the Persian scholar Al RażI (or Rhazes, 865-925), the discoverer of alcohol, refers to purple eggplant as a reference color in his chapter on dental diseases (!) in Ketáb al-hawl fl’-t-treeb. Eggplant is referred to by the philosopher Abu Ibn Ibn Sina (latinized as Avicenna), 980-1037, and other leading Medieval Persian writers on medicine and botany, who often urged caution in use of the eggplant, which was described as the cause of many harmful external and internal effects, as diverse as pimples, ophthalmia, ulcers, impetigo, leprosy, elephantiasis, intestinal constipation and blockade, blood thickening and blackening, insomnia, epilepsy, and excess of black bile. But they also mentioned that beneficial qualities could be acquired by special precautions such as salting and soaking, so that fruit could be used for bile neutralization and ear disease treatment. Eggplant fruits were recommended to be eaten only ripe and cooked.

Eggplant was unknown by the ancient Greeks and Romans but spread throughout the Mediterranean Basin as a result of Muslim expansion in the 7th and 8th centuries. It reached East Africa from Persian and Arab sailors from the 8th century onward as indicated by the presence of many terms for eggplant in Ethiopia (Encyclopedia Iranica, 1988). The Andalusian-Arab physician Abul al Walid Ibn Rushd (known in the West as Averroes), 1126-1198, refers to eggplant as does Ibn Al Awam (12th century) who describes cultivation details in his Kitáb al-Felāhah (Book of Agriculture), both suggesting that eggplant was a common and prized vegetable in Southern Spain in their time. Ibn Al Awam mentions four cultivated types: Egyptian (white fruit and violet petals), Syrian (violet fruit and light blue petals), local (dark purple with a thin calyx and purple petals), and Cordoban (black fruit). Similar types were cultivated in the land of Israel during the Mamelouk period (1250-1517) (Amar, 2000).

EGGPLANT IN MEDIEVAL EUROPE AND BEYOND

Eggplant is quite commonly mentioned and/or illustrated in later Medieval and Renaissance European documents. Albertus Magnus (1193-
1280), the great German philosopher, theologian and scientist, mentioned eggplant in his *De Vegetabilibus*, 1256. The first European illustration (Fig. 4) we found is located in an Italian herbal *De Herbis* (referenced as BNF Latin 6823, folio 106v) and dates to the 1330s. It displays two foliate branches bearing several large ovate light violet fruits. This fruit type is found in more elaborated miniatures of later manuscripts such as in *Theatrum sanitatis*, a manuscript kept at the Casanatense library in Rome (Ms 4182 folio 41) and dated ca 1380, where a field of adult plants bearing globose purplish fruits is displayed (Fig. 5) and in *Manuel des vertus, végétaux, animaux* (Austrian National Library, Ms 2396, folio 6v) dated ca 1480 where beautifully potted and white fruited eggplants can be admired (Fig. 6), indicating an ornamental use. Remarkable eggplant images (Fig. 7) are found in *Tacuinum Sanitatis* or *Tables of Health*, picture books for aristocratic families of the 14th and 15th centuries derived from the medical treatise *Taqwim al-sihha bi al-ashab al-sitta* (straightening up health by six causes) by the 11th century Bagdad physician Ibn Butlan (Mane, 2006). In the manuscript SN 2644 (folio 31v) held by the Austrian National Library, a field of globose fruited eggplants is the background of a scene where the aphrodisiacal properties of the plant are suggested (Fig. 7A), while an eggplant tree, indicative of extreme artistic license, is found in another manuscript (NAL 1673 folio 25v) held by the Bibliothèque nationale de France (Fig. 7B).

Clearly, the Medieval European feelings towards eggplant were ambiguous, and included warnings, as well as medicinal, and culinary information. In a late copy (BNF, ms 12322, dated 1520-1530) of the *Circa instans* of Matthaeus Platearius (12th century), it was noted that the bitterness and pungency of eggplants turned rapidly into melancholic and angry mood, provoking various ailments, but these ill effects could be reduced by special preparation using salt and rinsing. Eggplant was among the vegetables carried from Spain to America at the time of the Age of Exploration (15-17th centuries), and was reported in Brazil in the mid-17th century (Piso, 1648, quoted by Hedrick, 1919).

**EGGPLANT IN RENAISSANCE EUROPE**

In 16th century herbals, most black and white woodcuts (but some hand tinted) derive from an image in the *New Kreuterbuch* (1543) of Leonhart Fuchs (Fig. 8) of a plant with oblong fruits that Fuchs compares to apples. The gorgeous colored illustrations by Oellinger, 1553 (Fig. 9) and Aldrovandi (2nd half of the 16th century) (Fig. 10) still display globular, ovate, and pyriform fruits, white or purple (immature) or yellow (mature). Dalechamps in 1586 first illustrates elongated fruits (Fig. 11).

The aphrodisiacal properties of eggplant are mentioned again by Renaissance herbalists such as...
The marvellous festoons in the ceiling fresco of the Loggia of Cupid and Psyche in the Villa Farnesina, Rome, painted between 1515-1518 by Giovanni da Udina, a member of the workshop of Raphael Sanzio (Caneva, 1992), represent a wealth of fruits and vegetables including 31 scattered globose eggplant fruits of a light violet or yellow color (Fig. 12). In 1563 a small purple eggplant was included in the remarkable portrait *Summer* made up of a conglomerate of fruits by Giuseppe Arcimboldo (Fig. 13). Similar ovate, medium sized eggplants, are carved in as Matthioli (1544). A French translation (1605) states: *Il y a de nos gens qui mangent les pommes d’amour, pour se rendre plus disposts au jeu des dames* (poetic old French wording meaning people who eat love apples are receptive to flirtation). Though Matthioli details also the disquieting properties of eggplant, he informs his readers as well that eggplant was commonly eaten in Italy. In more Northern countries such as Germany and England, where eggplants did not grow as well, herbalists warned their readers about the dangers of eating eggplants. The English herbalist Gerard(e) (1597) equivocated: “in Egypt and Barbarie, they use to eate the fruite of Mala insana boiled or rosted under ashes with oile, vinegar, and pepper, as people use to eate Mushroms. But I rather wishe Englishmen to content themselves with the meate and sauce of our own country, than with fruite and sauce eaten with such peril: for doubtlesse these apples have a mischeevous quality; the use thereof is utterly to be forsaken. ...Therefore it is better to esteeme this plant and have him in the garden for your pleasure and the rarenesse thereof, then for any virtue or good qualities yet knowne.”
the frame of one of the doors of the Pisa cathedral that date to 1601 (Fig. 14).

![Figure 14. Ovate eggplant on bronze door of Pisa cathedral, Italy, 1601. Photo by courtesy of J. Janick.](image)

17TH AND 18TH CENTURIES AND BEYOND

The increasing popularity of eggplant post Renaissance is indicated by the continued richness of eggplant iconography in art up to and including the 20th century. We have located ovate, medium sized and violetish eggplants in paintings by Vincenzo Campi (ca. 1580), Francesco Zucchi (1600), Hendrick van Balen (ca. 1618), Jan Anton van der Baren (1650), Giacomo Francesco Cipper, also known as Todeschini (ca. 1700).

The great period of botanical illustration that flourished during the 18th century gave rise to the production of gorgeous eggplant images (Fig. 15), sometimes hidden in painting details, but also present in florilegia and expensive botanical treatises, usually displaying globose or oblong, purple or white fruits. From the end of the 18th century onwards, another kind of hand drawn or sometimes painted images became available, with the first seed catalogues such as the Vilmorin edition of 1760 (which mentioned eggplant as an ornamental annual). Seed catalogues are a unique source for typifying "old" vegetable cultivars (Fig. 16). In the second half of the 20th century, photographs replaced these drawings. Eggplant, as other vegetables, continued to inspire artists of the 19th and 20th centuries including Emile Bernard (1868-1941), Emile Gallé (1846-1904), Antonio Mancini (1852-1930), and Henri Matisse (1869-1954).

![Figure 15. Oblong white and purple types in Codex Liechtenstein, vol.3 folios 102 & 104, 1779. Collection of the Prince of Liechtenstein, Liechtenstein Museum, Vienna, Austria.](image)

![Figure 16. Eggplant shapes in Vilmorin catalogue, ed. 1925 (France): A. globular and globose; B. pyriform and ovate (plante aux œufs, on the right); C. elongated.](image)

CONCLUDING COMMENTS

The historical literature and iconography we investigated indicates that eggplant has long been common in Asia and Europe as food and to a lesser extent as medicine. The medicinal and aphrodisiacal properties attributed to eggplant seem to be related to the somewhat bitter and piquant flavors of the fruit (spicy food were thought to induce hot bloodedness), and possibly also because it was associated with mandrake, another Old World solanaceous species also bearing globose berries, yellowish at maturity. Yet, most authors sought to alleviate concerns by proving methods to render eggplant harmless in cookery.

The interpretation of the fruit characteristics of cultivars from the past requires some caution. Sometimes the text and illustrations do not match since the writer and artist were often different persons. This is especially true in the hand tinted versions where colors are doubtful, such as the green color of the Fuchs’ tinted drawing contradicted by the text mentioning purple and white fruits (Fig. 8). Illustrations and related texts do depict genetic diversity at various historical periods, including fruit size, shape, and color as well as the absence or presence of spines on the calyx, a character that was selected against with domestication. From the early Middle Ages, eggplant iconography clearly reveals the existence of fruit globular to globose to pyriform, medium to large size, and purple (dark or light) or white. The elongated fruit type is represented only towards the end of the 16th century suggesting the introduction of a new form. The iconographic and textual documentation seems to indicate that the fruits were sometimes eaten when physiologically ripe (yellow or brown). The constancy of the cultivar types through time suggests that eggplant, as in tree fruits (Janick, 2005), has not substantially changed for millennia despite the new combinations derived from 20th century breeding in particular for adaptation to new agro-climatic conditions, darker fruits, non-pungent and non-bitter taste, and spinelessness. Fruit striping (Fig. 17) is very rare in the iconographic documents, suggesting a late introduction from the Indian eggplant domestication and diversity center, where this color pattern is quite common.

![Figure 17. Eggplant diversity, including fruit striping. Photo by courtesy of M.C. Daunay.](image)
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Figure 18. First spring days. Nishike-e print/engraving, 18th century, Japan. ©Thierry Ollivier. Musée Guimet, Paris, France. See enlargement of eggplant (left).

Eggplant has entered popular culture, folklore, and poetry. In Istanbul, the southern wind was named patican metlemi (eggplant wind) because it blew on the many fires where eggplants were grilled (Hennig, 1994). In Sicily, eggplant is called quagliie (partridge) because its long fruits are often cut by cooks in such a way to resemble wings. A famous Japanese proverb, beautifully illustrated (Fig. 18) says: the happiest omen for a New Year is first Mount Fuji, then the falcon, and lastly eggplant. In 1123, the eggplant inspired the poet Ibn Sara of Santarem, Portugal (translated by C. Middleton and L. Garza-Falcon, 1997):

Spheroid Fruit, pleasing
To taste, fattened
By water gushing in all
The gardens, glossy cupped
In its petiole, ah heart
Of a lamb in
A vulture’s claws


Frommel, C.L. 2003. La Villa Farnesina a Roma. Franco Cosimo Panini, Modena, Italy.


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