

The Dutch love for flowers – the Tulip

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Holland is famous for its struggle against water, for dikes, polder of meadows, canals, windmills, wooden shoes and the tulips. Ask anyone; anywhere to name things that are "definitely Dutch" and the answer is going to include tulip, windmill and wooden shoes, usually in that order

For the tourist, the most important thing about spring in Holland is, of course flowers - and in Holland, there will be flowers in abundance. For every visitor to the Netherlands during the months of April and May a trip through the bulb fields of the Netherlands and a visit to the famous *Keukenhof* - the Bulb Gardens, the world's largest floral display, is a must. *Keukenhof* has been a centre of floral excellence for half a century. This magnificent park plays host to some of the worlds most breathtaking and beautiful flower displays where the landscape is transformed into a riot of colour by the unforgettable spectacle of a kaleidoscope of tulips, daffodils and hyacinths. Over 6 million bulbs bloom annually, in the 80 acres of ground, forming an ocean of colours. The pavilions, ponds and special exhibits display a spectacular array of colourful and exotic plants, trees and shrubs. A carpet of bulb flowers cover the fields and the flower lovers are confronted with a dazzling and breathtaking sight. There cannot be a better way to escape the browns and greys of winter than to experience the color of Holland in the spring.

The Origins of the Tulip

The tulip's natural home is mountainous regions. They are found growing there at very high altitudes. This means that they are often covered with a thick layer of snow during the winter period. This offers them good protection from the severe cold. In quite a few of these species the inner side of the skin that covers the bulb is covered with a thick hairy layer that provides extra protection.

Given this natural liking of tulips for high places, it is all the more remarkable that the Dutch should become known for growing tulips, as the Netherlands is largely situated below sea-level. The winters in the Netherlands are more wet than they are cold.

Since these are not the ideal conditions that make tulips happy, the Dutch have invented systems that provide drainage in the winter. All through the sandy coastal bulb growing regions one sees fields ringed by drainage ditches that draw surplus water quickly from the fields. The water flows from the ditches to canals and then to the sea. With a country below sea level, it is not unusual to see water canals flowing through embankments that rise above the surrounding fields.

Widely available at modest prices today, the tulip is closely associated with the Netherlands. But the tulip is not a native Dutch flower. Like many other products in Western Europe, such as the potato and tobacco, tulips came to the Netherlands from another part of the world. The plant probably first appeared in the steppes of western and central Asia, primarily in Armenia, Persia and the Caucasus. From these region's, the tulip spread into areas along the Black Sea, throughout the entire Mediterranean area, even into China.

Most people including the Dutch believe that tulips originally came from Turkey where the plant has its their natural habitat. This is only partly true. A significant percentage of the tulips

cultivated in the Netherlands originated from areas now considered part of Russia, around the Black Sea, in the Crimea, and from the steppes located north of the Caucasus. But in the 1500s when the tulips were first introduced into Europe, these areas belonged to what was called the great Ottoman Empire, also known as the Turkish Empire.

Before tulips ever reached Europe, they had enjoyed a long and rich cultural history in Persia. Scholars now believe that the Turks had been cultivating tulips as early as AD 1000. In 1100 tulips were used in the initials of an Italian bible. In the 12th century Omar Khayyam writes a poem about tulips. In the 13th century the Turkish poet and Sufi saint Rumi, sings the praises of the tulips in many songs. Tulips were particularly popular in the courts of Suleiman the Magnificent, Sultan of the great Ottoman Empire. He reigned from 1520 to 1566 during the "golden age of Ottoman power and grandeur" when it achieved its greatest reach, stretching from Tripoli to the Persian Gulf to Hungary. Some called it the Ottoman's "Tulip Age."

Introduction of Tulips in Holland

Ogier Ghiselin de Busbecq, ambassador of the Austrian (Habsburg) Emperor Ferdinand I to the Ottoman Empire encountered the first tulips in the empire of Suleiman the Magnificent. De Busbecq was the first Westerner to mention the existence of tulips in writing. In the mid-1500s, he brought back a collection of tulip bulbs and seeds to Vienna, where he gave some to his friend Carolus Clusius, then Prefect of the Imperial Herb Garden there. The botanist Carolus Clusius lived from 1526 to 1609 and had achieved great recognition for his work with medicinal herbs in Prague and Vienna; he accepted a position as chief botanist of the Dutch university in Leiden in the year 1593.

In the autumn of 1593 Carolus Clusius, assisted by Cluyt, a skilled botanist and pharmacist, planted a handful of tulip bulbs in Leiden's innovative hortus botanicus, or botanical garden and cultivated the bulbs and seeds and thus introduced the first known tulip flower to Holland. The bulbs thrived in the Dutch climate and an industry was born. The Dutch considered this act as the birth of their famous flower and this famous botanist Carolus Clusius became the key figure in the history of the European tulip. The tulip became the genesis of the modern Dutch flower-bulb industry of today.

The start of an Epoch

Clusius experimented to produce new color variations in tulips. This breeding of tulips with new color combinations had an important effect. The most elegantly and brightly colored of the new tulips became a very popular but costly item. Clusius seems to have looked at the value of tulip bulbs strictly in terms of a scientific perspective. He refused to share his knowledge or to explore the possibility of offering the tulips commercially. But there were people who saw the bulb as a good possibility to make money. They wanted to get some bulbs to cultivate and sell them. But Clusius remained inflexible. He wouldn't share.

Several frustrated persons got together and stole a quantity of Clusius' collection of tulip bulbs. This was in all probability the start of the Dutch tulip industry. The typically Dutch instinct for horticulture and business skills led to an export oriented industry that today employs hundreds of people and is a major earner of foreign exchange.

It is not possible to determine with certainty the first tulip species to be planted and cultivated in Leiden. It is known that the Turks were already crossing and hybridising (*breeding of flowers with specific characteristics*) tulips at least as early as the time of Sultan Suleiman. Therefore it is

generally assumed that not all of the original varieties of tulips were actual wild species. Most probably some of these Turkish hybridized tulips were present in Clusius' collection. In fact *Tulipa 'Duc van Tol Red and Yellow'* is considered to have been an early predecessor of many of the tulips we know today. *T. 'Lac van Rijn'* is another of the very old varieties.

Tulpomania or Tulip mania: a passion that blossomed into disaster

The Dutch cultivation of tulips began, slowly but surely in the 1600s, in very small private plots. The *bollenstreek* or the bulb-growing region of today, the area between the North Sea and Amsterdam surrounded by the thriving cities of Leiden and Harlem was the main area of cultivation.

In the beginning the tulip was a rarity. The rich clamoured to have them. The tulips became a status symbol. Only the wealthiest aristocrats and merchants could afford it. A buying mania was born.

Unbelievable though it may seem, somewhere near the early 17th century a single bulb of high quality would fetch several thousand florins. It was quite extraordinary. By 1624 things had progressed to such a craze that one tulip, the famous white and maroon "*Rembrandt-type*" tulip '*Semper Augustus*', could command a price as high as 3,000 florin per bulb. And there were only 12 bulbs available for sale. Just a short time later, a similar bulb fetched 4,500 florin, plus a horse and carriage.

To give an idea of what 3,000 florins could buy at the time: two loads of wheat, four loads of rye, four fat oxen, five swine, 12 sheep, two hogsheds of wine, four barrels of beer, two barrels of butter, a thousand pounds of cheese, one complete bed, one suit of clothes, one silver tankard and a sizeable wagon to haul it all away.

One would suppose that there must have been some great virtue in this flower to make it so valuable in the eyes of so practical a people as the Dutch; but in fact it was just the greed of making a fast buck. The tulip bulbs seduced the Dutch elite. There are many surviving receipts and contracts from that period showing that people traded large houses, businesses, ships, and farms for a single tulip bulb. People also borrowed huge sums of money, regardless of the terms of the loan or the interest rate, to speculate at the tulip market.

The popularity of the tulip in the Dutch Republic reached its top in the years 1636-37 during the craze known as '*Tulip mania*.' Tulipmania is the term for the speculative stock market scandal created by the astronomical prices commanded by tulip bulbs in Holland in the early 1600s, just a few decades after the first tulip bulbs arrived there. To this day, *Tulipmania* is the textbook example of a speculative stock market that rises furiously, only to crash when "the bottom falls out." It is said that the word "*bourse*" (stock exchange) derives from tulip mania. Those who speculated on tulips held their trading sessions at the offices of the Dutch noble family *van Bourse*.

In the 17th century the immense expansion of commerce in the Netherlands encouraged gambling upon profits to be made from speculation in all kinds of products. Bulbs were bought and sold and resold dozens of times. They were bought and sold unseen. At this time, the practice of tulip speculation - only relevant to prized varieties of the flower - emerged. Because the flower-growers had to cultivate the bulbs and could not sell them until they were ready, they began selling promissory notes guaranteeing the future delivery of the tulip bulb. The

buyers of these pieces of paper resold the notes at marked-up prices. In this way, the promissory notes changed hands from buyer to buyer until the tulip became ready for delivery. The key was to be able to resell the note before the tulip could be delivered; the unlucky gambler was the person who could no longer resell the note because he now owned the actual tulip. This Dutch trade in the future promise of tulips became known as the “*windhandel*”, literally trading in the wind, that is, buying or selling in futures without actual possession of goods. Thus the Dutch introduced the “future trading” into business.

Local governments tried unsuccessfully to outlaw this commerce. But like any profit boom, trade was legislated by economics, not government.

The bottom suddenly fell out of the market. When the tulip mania came to an end, the end came quickly. It was painful. On April 27, 1637; the Dutch government issued a decree that tulips and tulip bulbs were products, not investments, and that they had to be bought and sold on that basis. That meant that tulips had to be paid for in cash, not with I.O.U.s. It also meant that Dutch banks could no longer accept tulips as collateral for loans.

With no new money coming into the market to keep the price spiral going, and with banks calling in their tulip loans, tulip prices collapsed overnight. Thousands of Dutch businessmen, including many of the country's leading economic power brokers, were ruined in less than two months' time. Tulip owners and tulip stock speculators were financially ruined, as were the people who lent them money and extended credit to buy tulips. Many businesses and financial institutions closed their doors, never to reopen. The losses were such that the whole credit system, not merely for tulips, was endangered.

At the time of the tulip speculation, the Netherlands and in particular the city of Amsterdam had become the center of gravity of international commerce and had superseded the Italian cities of Genoa, Venice, and Naples. This collapse of the tulip market was a national catastrophe not only for Holland but it also had its reverberations in London, Paris, and other parts of Europe as well.

In spite of the uproar and the difficulties that accompanied the wild speculation in tulips, the tulip continued to be the most popular garden flower for a very long time. Tulips had become associated with the Netherlands. The lasting Dutch fascination with tulips - and the enduring Dutch flower industry - owes at least part of its development to *Tulipomania*. *Tulipomania* remains one of the more fascinating events in horticultural history.

The collapse of the market was such a well-known event in the history of Europe that Alexander Dumas even wrote a novel about it called “The Black Tulip”.

The Hunger Winter of 1945 (hongerwinter)- Tulip bulbs as a source of food.

The winter of 1944/1945 was particularly horrible and the last six months of the second world war was most probably the worst part of the war for the Dutch population. The winter was severe. There was lack of everything. The German troops had been cut off from their supply lines. They stole everything there was to take until there was absolutely nothing left over. By the end of the war the food was rationed at half a loaf of bread per week. It is said that these loaves were made from anything available, often from tulip bulbs. The city dwellers went to the country and ate anything that they could get – potatoes, beat and of course tulip bulbs. This

period, the winter of 1945 and early spring, was known as the "Hunger Winter" - (hongerwinter).

Where does the name tulip come from?

The most obvious explanation for how the tulip got its name was its resemblance to the headgear worn by many people in the Middle East, such as the Persians - the turban. The Latin name is "tulipa". With a little imagination, the flowers of some tulips do look like a turban. The actual origin of the word is unknown.

Bulb-growing areas of Holland

Since the 1600s, tulip growing has been a major crop for Holland. Today nearly half of Holland's 47,150 acres of flower bulb farms are planted with tulip bulbs (23,412 acres). Other bulbs ranking highest in acreage (but far below the tulip) are lilies, gladioli, narcissi and hyacinth (in that order).

Holland annually produces about three billion tulip bulbs. Approximately two billion are exported and one billion remain in the Netherlands. The vast majority of them are used for "forcing" of cut flowers and potted plants.

The top importer of Dutch tulip bulbs is the United States of America, followed closely by Japan and Germany. Nearly one billion bulbs go to the USA.

Over the past four hundred years, the efforts of Dutch hybridizers have led to new, healthier and lovelier tulips. About a century ago, the bulb industry adopted strict quality standards, forming organizations such as the Royal Dutch Bulb Growers Association to set and enforce these standards within the industry. At present there are more than 3,500 tulip hybrids and species commercially available in the Netherlands. One hundred percent of all tulip bulbs sold by the Dutch are produced and grown in Holland.

The Dutch bulb sector maintains a living museum of bulbs flowers in the town of Limmen. (near Amsterdam). This museum is a patchwork-planted field called the Hortus Bulborum. It helps to preserve the gene pool for use by modern hybridizers, and stands as a monument to the respect of the Dutch for tulips and other bulb flowers for which they are famous. At the museum, it is still possible to see one of Clusius's original hybrids, the 'Duc van Tol', created in 1595. Tourist and professional hybridizers come from all over to see the blooms of this garden - and even take pollen samples from the 1,500 different types of tulips. It's an amazing display of color in an exotic location.

There are two separate markets for the sale of flower bulbs: the sale of dry bulbs and the sale of forcing bulbs. Bulbs which are sold as dry bulbs, are meant to be planted in gardens and beds, flower pots, commercial plantings, and grown as forced flowers in homes. The sale of forcing bulbs involves the sale of bulbs, which will be grown by professional flower growers for the production of cut flowers and pot plants.

Most flower bulbs are traded through purchasing and sales agents. But there are also two flower bulb auctions located in the Netherlands. The purchasing and sales agencies mediate the sales of the bulbs and balance supply and demand. They guarantee payment. The grower is thus assured of receiving his money. The bulbs are sold as futures. That means that the bulbs, which are still in the ground, are already sold on paper.

Tulip and the painters:

The beauty of the tulip charmed famous Dutch painters, including Jan Brueghel the Elder and the tulip graced the paintings of the Dutch Masters. They produced some masterful still-life paintings. Tulips and art became so intertwined that a whole class of tulips has come to be called "*Rembrandt tulips*" - though, Rembrandt himself was not known for floral subjects. Even a Bouquet Painting by Rubens includes tulips.

The "*bouquet paintings*," as they came to be known, all shared one common factor: few of the bouquets painted ever existed. They simply could not have. The reason being: the flowers shown together do not bloom at the same time of the year.

But today it is a different story. Now these odd pairings would not raise an eyebrow. Thanks to the wonders of modern day "forcing" techniques, tulips and other flowers can be "fooled" to bloom out-of-season - nearly any time of year - by careful manipulation of light and temperature conditions.

What's new in Tulips?

The tulips have come a long way and have a glamorous past. The original "*broken stripe*" tulips were infected with a devastating virus, such bulbs are not allowed in cultivation today. Instead genetically stable flamed "*look-a-likes*" (hybrids that duplicate the famous bi-color, broken stripe look) are available and continue to be extremely popular. Many varieties of tulips planted today were introduced in the years between 1593 (when tulips first arrived in Holland) and the year 1750. All are readily available today from various garden centers, mail-order catalogues, home centers and many supermarkets. Some are identical to their ancestors; some are "*look-a-likes*" that replicate historical varieties. Some of them are *Tulipa Tarda* (introduced circa 1590), *Rembrandt tulips* (circa 1610), *Tulipa clusiana* (circa 1802), *Viridiflora tulips* (1700), *Tulipa 'Keizerkroon'* (1750), *'Cordell Hull'* (1933) and *'Vlammenspel'* (1941).

Maybe due to the scientific nature of the tulip's introduction in a university garden, the Dutch have always been meticulous about cataloguing and preserving important tulip species and their hybrids, called cultivars.

It usually takes 15 to 25 years or more to bring a new tulip onto the market. Often the grandson introduces the flower his grandfather first created. Tulips grow and reproduce at nature's pace. First there are years of trial and error, as the hybridizer grows and tests different combinations. Then, once a hybrid with the right combination of qualities is achieved, there are the years required for a grower to build up commercial stocks. New tulip varieties or "*cultivars*" that are "*baptized*" and accepted by the industry may not be available in sizable quantities until five or more years later.

The Dutch are not the only ones who have a "love affair" with the tulip. Pella, Iowa, USA has also a tulip festival. The tulip festival, held in May, transforms Pella into a kaleidoscope of blooming tulips, parades, authentic Dutch costumes, folks dancing and antique street organ music. Here is also a "little Holland" with residents who originally came from the Netherlands.

Every year in the bulb producing area of the Netherlands the annual Flower parade takes place. It travels a 40 km route. The flower parade includes a number of large floats and several decorated luxury cars, interspersed with marching bands. The decoration of the floats with

millions of flowers is done by hundreds of volunteers. Hundreds of thousands of spectators stand by the roadside to marvel at the beauty of the floats and decorated cars. At the end of the parade the floats will be illuminated for the public.

Holland: small in size, big in events, attractions and activities. In the year 2002 in addition, the Netherlands will have its "once-every-decade" horticultural fair called the *Floriade*. It runs from April 6 through October 20, and has grown to be the largest attraction in the Netherlands. This year's *Floriade* will be held in Haarlemmermeer, about 5 kilometers from the Amsterdam Schiphol Airport. More than 3.3 million people visited the last *Floriade*, held in 1992. *Floriade* 2002 expects around 4 million visitors, with at least one third from abroad. Exhibitions of flowers, plants, bulbs, trees, vegetables and fruits from the Netherlands play a leading role. Exhibits from 25 countries are going to make the *Floriade* a world-class event for horticulture lovers. Tulip again plays an important role in this exhibition.

Holland and tulips today

Today, growing tulips is still one of the most popular pastimes in Holland. A sizeable part of Holland's very scarce land is used to grow tulips, but now, tulips are profitable. Huge numbers of tourists visit Holland to see the tulip gardens and attend tulip festivals, and Dutch tulips are sold all over the world.

In all, there are about 3,500 varieties of tulips on the market. But tulips of course, are not the only bulbs the Dutch industry produces. Generations of experience and a climate particularly adapted for horticulture and bulb production has brought forth 12,000 varieties of flower bulbs in all.

This is an accomplishment of which the Dutch are particularly proud. Flower bulbs in the Netherlands are both a product and a passion. Each bulb, they like to say, holds a promise - a promise of a world alive with color and good cheer, from the last snows of winter through the first frosts of autumn.

In 1593, no Dutchman had ever seen a tulip. In the 400 years since, the Netherlands has become synonymous with this most beloved of spring flowers.¹

(This article was published in different magazines in India, The Netherlands, UK and USA.)

¹ *The International Flower Bulb Center (IBC) gave permission to use some of their information in this article. IBC is responsible for collective advertising, sales promotion, and technical support for the Dutch flower bulb industry in 12 countries. IBC was established in 1925.*