

GULMOHAR/ DELONIX REGIA

ORANGE PUNCH

The ubiquitous gulmohar tree has several unrealised utilities

CHITRA BALASUBRAMANIAM

IF YOU want to see a burst of orange in all its glory, take a look at the beautiful Gulmohar tree. Come April, this leafless tree slowly starts to sprout fresh springs of green. Soon young green leaves cover it, and specks of flowers start appearing. In May, the tree is a riot of red and orange. It is a tree that almost everyone in Delhi looks forward to. Scientifically called *Delonix regia*, it is known by several names such as Royal Poinciana, flame of the forest, flame of the tree, and in India, it known as *Gol Mohr*. It is also called Krishnachura or the crown of Lord Krishna.

The tree was discovered in Madagascar in the early 19th century and introduced to Singapore in 1840. In India, it is supposed to have been introduced in 1848 in Mumbai. It is one of the most prolific cultivated ornamental plants—Delhi's Gulmohar Park is named after it.

It is a very adaptive tree which can grow almost anywhere. It needs plenty of sun to flower and grow. What is not well known is the fact that the entire tree has utilities. The wood is used as a fuel and has a high calorific value. It is used for making soft and small items like combs. The tree is a host for lac insects, which secrete a resinous pigment. The dried seed pods of the tree are



Gulmohar needs plenty of sun to flower and grow. It is used in tea plantations to prevent soil erosion

◀ GULMOHAR PAKORA

INGREDIENTS

Petals: a handful

(separated from the flowers)

Besan (gram flour): 3 tbsp

Hing (asafoetida): A pinch

Ajwain (bishop's weed): 1/4 tsp

Salt to taste

Red chilli powder to taste

Oil for deep frying

METHOD

Make a thin batter by mixing *besan*, *hing*, *ajwain*, salt and chilli powder. Heat the oil in a thick bottomed pan. Dip the petals individually into the batter and deep fry them. These fritters have a unique sour taste and can be enjoyed with tea.

used to make a unique percussion instrument called shak-shak or maraca. The seeds are used to extract an oil, which has antibacterial and insecticide properties. The oil is used to make soaps and the oil cake is also used as a fertiliser. The seeds are strung as beads into ornaments too. The gum extract is used by the textile industry. The leaves are said to have medicinal value, and decoctions are used to cure various ailments.

It is also used in tea plantations to prevent soil erosion. A study published in the *International Journal of ChemTech Research* in 2011, indicates that the flowers have a rich source of potentially useful natural antioxidants like polyphenol and flavonoids. Flowers of *Delonix regia* also contain carotenoids, tannins, saponins, steroids, alkaloids. It concludes saying, "These constituents play a pivotal role as an antioxidant and have organ protective properties." Another study published in the *Journal of Pharmacognosy and Phytochemistry* in 2016, says that the flowers have anti-diabetic, anti-bacterial, anti-diarrheal, anti-microbial and anti-inflammatory properties. In a paper published in the *International Journal of Pharmacy and Pharmaceutical Sciences (Volume 7, Issue 8)*, the author gives references to many traditional cures using Gulmohar flowers. They speak of how the infusion of flowers was used to cure bronchitis, asthma and malarial fever. The Shaiji community in southwestern Bangladesh used the flowers to cure chronic fever. "The people of Yanadi (a tribal community in Andhra Pradesh, India) used the flowers to treat dysmenorrhoea. The water extracts of flowers are also used in traditional beverages in several African counties," the author says, adding that the Gulmohar flowers can also be used to make sunscreen. The flowers are also used to make bee forage.

They can be also used to make liqueurs, jams and floral teas. But one of the most common ways to consume them is by preparing *pakoras* from the slightly sour petals.

BITTER GOURD/MOMORDICA CHARANTIA **NOT SWEET, YET...**

Leaves of bitter gourd have medicinal and nutritive properties and can be used to prepare delicious dishes

VIBHA VARSHNEY

IT WAS a clear case of home gardening gone wrong. I had planted bitter gourd seeds in a flower pot hoping to get gourds, but as there's not enough sunlight in my home in Delhi, all I got was a profuse harvest of leaves. The only consolation was that the plant is pretty—the slender climber has lobed leaves and delicate tendrils and works well as an ornamental. A friend suggested that I make *pakor*as from the leaves. I made a batch dipping the whole leaf in a rice and chickpea flour batter. They were tasty enough for me to plant more seeds next year for a fresh harvest.

Bitter gourd or *Momordica charantia* is part of the diet regime suggested to diabetics, as it can lower blood sugar levels. Usually, the juice of the raw gourd is used for this purpose. However, the gourd could counteract with diabetes medication and reduce blood sugar levels to dangerously low levels. Pregnant women, too, are advised to avoid it as it can lead to abortions.

While most Indians love the bitter taste of this vegetable, some cannot understand why it should be consumed. They boil the gourd and squeeze out the bitterness. Or they peel the gourds and apply salt on them so that it releases the water which can be then squeezed out.

Usually, raw mangoes and dried mango powder are used liberally in bitter gourd-based recipes. Chips prepared by frying



Karela leaf pakora

Bitter gourd thrives in hot and humid climates. Low temperatures limit seed germination and growth

thin slices of bitter gourd with a sprinkle of *chaat masala* are popular. These methods manage to reduce the bitterness a bit, but it cannot be removed completely. It is better to just embrace the bitterness.

The leaves too are bitter and useful to control blood sugar levels. As they are not as bitter as the gourd, they may be more palatable to people who do not like the taste of the vegetable. Tea prepared from both fresh and dry leaves are quite popular among diabetics.

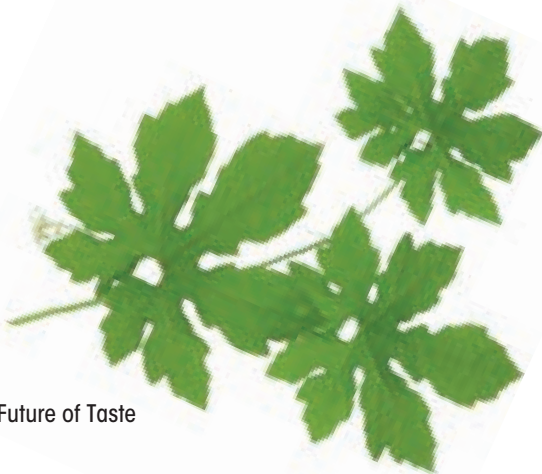
VERSATILE INGREDIENT

The leaves are a versatile ingredient for perking up the plate. In Odisha, the leaves are added to sautéed onions and then cooked rice is added to it. Their mild bitterness works well with starchy rice. In West Bengal, the leaves are added to the traditional *shukto* when the vegetable is not available. Similarly, there are recipes where the leaves are used along with potatoes. The leaves can also be used as stuffing for a

paratha. They complement chicken and fish recipes too, and can be used raw in salads or added to boiled *dal*. The leaves can be added to omelettes too.

The leaves are nutritious and rich in minerals like potassium, sodium, calcium, zinc, magnesium, iron, manganese and copper, and vitamins like carotene, tocopherol, folic acid, cyanocobalamin and ascorbic acid along with some traces of vitamins B3, B6, D and K.

Bitter gourd belongs to the Cucurbitaceae family, which includes cucumber, melon and pumpkin. Although the exact origin of *Momordica* genus is unclear, most experts agree that the centre of domestication was in eastern Asia, possibly eastern India or southern China. Many species of *Momordica* are endemic to different parts of the country but *Momordica charantia* is distributed across India, except in the northeast region. Despite the fact that the bitter gourd has been extensively described in Ayurvedic texts, the health benefits have attracted many biopirates who have patented products prepared from this vegetable from our backyards. In 1999, a case of a company run by non-resident Indians patenting the extracts of the gourd for its anti-diabetic properties strengthened the government's resolve to document the medicinal properties of indigenous plants and share with patent offices around the world.



KARELA LEAF PAKORA

INGREDIENTS

Karela leaves: a handful of medium-sized leaves

Chickpea flour: 3/4 cup

Rice flour: 1/4 cup

Turmeric powder: 1/2 tsp

Sesame seeds: 1 tsp

Salt to taste

Vegetable oil for frying

METHOD

Prepare a thin batter using chickpea flour, rice flour, turmeric powder, sesame seeds, salt and water. Heat oil in a pan. When medium hot, dip the whole leaf of *karela* in the batter and release gently into the oil. Fry till golden yellow. Serve with chutney of your choice. This recipe retains the taste of the leaf. The *pakoras* can be spiced up by adding ginger-garlic paste and chilli powder to the batter. This masks the bitterness of the leaf to some extent.

SCRAMBLED EGGS WITH KARELA LEAVES

INGREDIENTS

Eggs: 2

Onion: 1/2 (diced)

Butter: 1 tbsp

Tender bitter gourd leaves: a handful (chopped)

Salt to taste

METHOD

Beat the eggs, onions and the leaves together and add salt. Take butter in a frying pan. Pour the egg mixture and cook slowly. Transfer to a plate when it turns golden yellow and enjoy the slightly bitter taste.

TAMARIND/TAMARINDUS INDICA

SEEDS OF POWER

Tamarind seeds are rich in protein and find use even beyond food

VIBHA VARSHNEY

EVERY TIME I buy tamarind, my mother reminisces about how this sour pod-like fruit was a rare commodity in her village in western Uttar Pradesh. As a child, she would even consume the seeds—after roasting them overnight on the hot ashes of a *chulha* (stove).

The flat, glossy brown seeds of tamarind (*Tamarindus indica*) have a somewhat almond-like taste, with a tinge of bitterness. Roasting them on the stove, like my mother did, has been the traditional method of removing the bitterness, after which they are gently pounded on in a mortar and pestle so that the seed coat can be removed. Modern households, however, can opt for kernel flour that is now easily available in the market.

Tamarind seeds are a part of many popular recipes. In Karnataka, where the fruit is called *hunase*, roasted kernels are soaked in buttermilk and salt for a day to soften them, so that they can be consumed as a snack. In Maharashtra, tamarind or *chinch* seed flour is used to prepare *dal vada*, a fritter. The versatile flour can be also used in baking or be added to *roti* dough.

In a May 2010 study published in the *International Journal of Current Microbiology and Applied Sciences*, researchers an-

DAL VADAS >>

INGREDIENTS

Tamarind seed flour: 2 tbsp
Split urad dal (black gram): 1 cup
(Add other lentils like green gram and chickpeas to improve texture)
Drumstick leaves: A handful
Ginger: About 5 cm
Garlic: 10 cloves
Green chillies: 5
Salt to taste
Oil for frying

METHOD

Soak *urad dal* in water for 30 minutes, then grind in a mixer with ginger, garlic and chillies to make a paste. Add tamarind seed flour, drumstick leaves and salt to the paste; mix well. Preheat the oil for frying. Take a small amount of the batter, shape it like a doughnut so that it cooks evenly, and fry it. Serve with chutney and other condiments.

PULINKOTE

INGREDIENTS

Tamarind seeds: 50g

METHOD

Wash the seeds and dry roast them in a thick bottomed pan. Once they start sputtering, take them off the heat and let them dry. Pound them in a mortar and pestle to remove the seed coat. These can be enjoyed as a snack.