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**AN ETHNOMEDICINAL FRUIT VEGETABLES OF FAMILY  
CUCURBITACEAE USED FOR PRIMARY HEALTH CARE FROM  
NANDED DISTRICT (MS) INDIA**

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**ABSTRACT**

Fruits and vegetables of the Family Cucurbitaceae have a long history of use as food sources worldwide. Some of the veggies have, nevertheless, since made their way into the database of therapeutic plants. This research aimed to evaluate the potential therapeutic benefits of fruits and vegetables that the residents of Nanded District, Maharashtra state, India, eat. This article seeks to methodically record and reconcile the assertions made by folklore and ethnopharmacology regarding the Cucurbitaceae family with scientific facts. There are more than 800 species of the Cucurbitaceae family of crops known to science.

Twelve fruits and vegetables belonging to the Cucurbitaceae family are stated to have ethnopharmacological and therapeutic properties in the current study. Cucurbit plants are abundant in phytochemicals, terpenoids, carotenoids, and saponins. Cucurbit vegetables, belonging to the Cucurbitaceae family, are beneficial to human health. Numerous studies have demonstrated their antioxidant, antidiabetic, anti-inflammatory, and purgative qualities. This

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review assesses the body of research on vegetables in the Cucurbitaceae family, its products, and the benefits they provide for human health.

**Keywords: Wild vegetables, Cucurbitaceae, Human health, Ethnopharmacology**

## **INTRODUCTION:**

With about 960 species and 125 genera, the Cucurbitaceae family is the biggest family of fruit and vegetable crops. Cucurbitaceae vegetables have long been used in traditional medicine and cuisine. It is cited for its medicinal value in Indian folk medicine and Ayurveda, and it could be a source for safe and effective therapeutic development [1]. Known as wild vegetables because they grow freely in the wild in tropical and subtropical locations, where the majority of these species are found [2-4].

However, according to Dhiman [2] they are currently among the plant families that are grown all over the world. Worldwide, Cucurbitaceae plants are frequently utilized in pharmaceuticals to treat a wide range of illnesses, particularly in Chinese and Ayurvedic pharmacopeia [2,5]. According to Grover and Yadav [6], Khulakpam [7], and Ahmad [8], among the traditional medicinal uses are the following: treatment for gonorrhoea, ulcers, respiratory diseases, jaundice, syphilis, scabies, constipation, worms, piles, leprosy, skin infections, hemoptysis, diabetes, night-blindness, obesity, kidney and liver diseases, and fatigue.

Eating 200 g or more of various veggies a day is advised [9]. Wild edible plants are

utilized as functional and nutraceutical foods in many parts of the world, in addition to being a source of food [10]. Numerous vegetables and their products include phyto-protective chemicals with a range of biological activities, according to recent clinical and epidemiologic studies. These compounds may be helpful to human health. But their exact mode of action hasn't been made evident [11]. In many nations, particularly developing ones, about 80% of people prefer using traditional medicine instead of the national health system. The foundation for the creation of contemporary pharmaceutical medicines is found in bioactive natural substances. Fifty percent of all drug users worldwide utilize both conventional and natural drugs [12]. Their mineral richness in iron, calcium, magnesium, zinc, and potassium—all necessary for a healthy lifestyle—has been shown in numerous research [13-16].

This review looks at the most recent data on the benefits of plants in the Cucurbitaceae family for human health.

## **METHODOLOGY:**

### **Study Area:**

The study was carried out in several villages in the Indian state of Maharashtra's Nanded District. The District of Nanded is located

between latitudes 18° 15' and 19° 55' North and longitudes 77° 0' to 78° 25' East. Its total area is 10,332 square kilometers. The state's southeast region is where it is situated. The majority of people live in rural villages and rely on subsistence farming to exist. The climate is varied, featuring both temperate

and subtropical regions. Seven rural villages—Therban, Somthana, Somthana-tanda, Shingarwadi, Dhawari, Dhanora, and Borgaon—located in the Bhokar Tehsil of Nanded District (MS), India, were the subject of the current study.

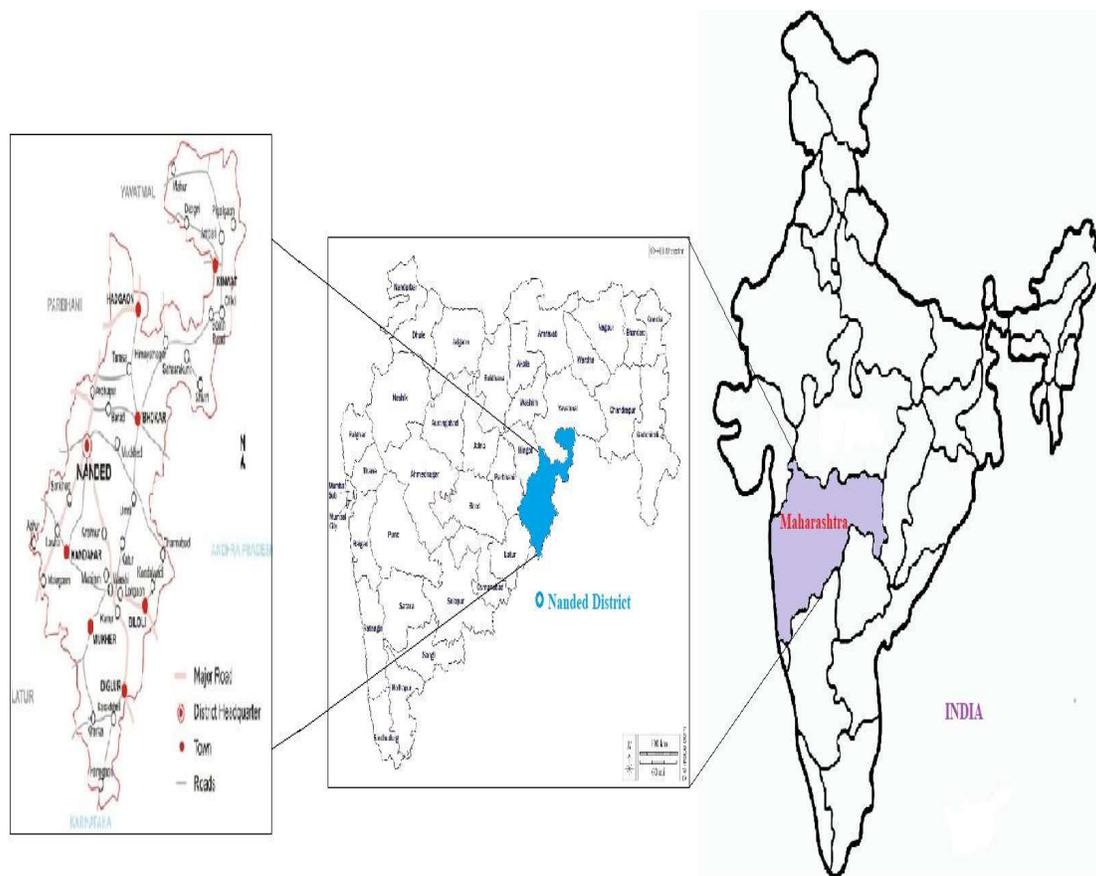


Figure 1: Maps showing Nanded District (the study area) of Maharashtra State, India

### Data collection and analysis:

To gather information on the vegetable species used by the tribal groups in the research region, a comprehensive and methodical ethnobotanical survey of vegetables belonging to the Cucurbitaceae family was conducted in many villages within the Nanded district between August

2021 and December 2022. For this study, a thorough survey was carried out in several villages to learn more about the people who knew about vegetables or who were involved in their gathering and sale.

Prior Informed Consent was verbally gained from each respondent before the commencement of the survey, and a semi-

structured questionnaire was utilized for conducting interviews. Interviews were conducted with 122 informants in all, 35 of whom were men and 87 of whom were women, ages 20 to 90. The local names of plants, their edible components, the season in which they are available, consumption techniques, and their medicinal applications were among the questions posed to the respondents during the interviews. The majority of the 122 respondents in this study who were questioned were elderly (n = 73), followed by adults in the 36–59 age range (n = 31). The least number of youth (n = 18) were in the 20–35 age range.

The local names of well-known wild and farmed vegetable varieties, preparation techniques, recipes made alone or in combination with other plants, taste, supply chain, ethnomedical applications, and other uses were among the questions posed to the respondents during the interviews. The gathering of plant specimens helped to dispel the ambiguity that frequently results from locals referring to a single species by two or more popular names. A common name may be used to refer to several species under certain situations. After being verified, the pressed specimens were placed in the Department of Botany. The Flora of Marathwada [17] for the botanical nomenclature of species and the International Plant Names Index [18] database was used to validate the authority

on botanical names. Utilizing a mathematical technique modified [19], the frequency index was determined.

The formula is

$$FI = (FC \div N) \times 100$$

Where, FI = Frequency index, FC = Number of participants, and N = Total number of participants.

The data for the current study, which focuses on the medical uses of vegetables of the Cucurbitaceae family, was gathered from scientific literature databases like Google Scholar, Science-Direct, PubChem, PubMed, SciFinder, Web of Science, and Scopus. Furthermore, data was obtained from books, dissertations, and theses from master's and doctoral programs.

## RESULTS AND DISCUSSION:

### Demography of informants:

Of the 122 participants in this study who were interviewed, the majority were seniors (n = 73), followed by adults (n = 31) who were between the ages of 36 and 59. The least number of youth (n = 18) were in the 20–35 age range. The findings indicate that older people supplied more veggies with therapeutic value than people in other age groups. Gender-wise, females (n = 87/122) outnumbered males (n = 35/122), as Figure 2 illustrates. Of those polled, 47% had completed secondary school, whereas 12, 23, and 18% had only completed primary, tertiary, or no education at all (Table 1).

Table 1: Participants' demographic composition.

Parameter	Specification	Frequency	Percentage (%)
Gender	Male	35	29
	Female	87	71
Status	Youth (20–35)	18	15
	Community adult (36–59)	31	25
	Elder (>60)	73	60
Education	None	28	23
	Primary	22	18
	Secondary	57	47
	Tertiary	15	12

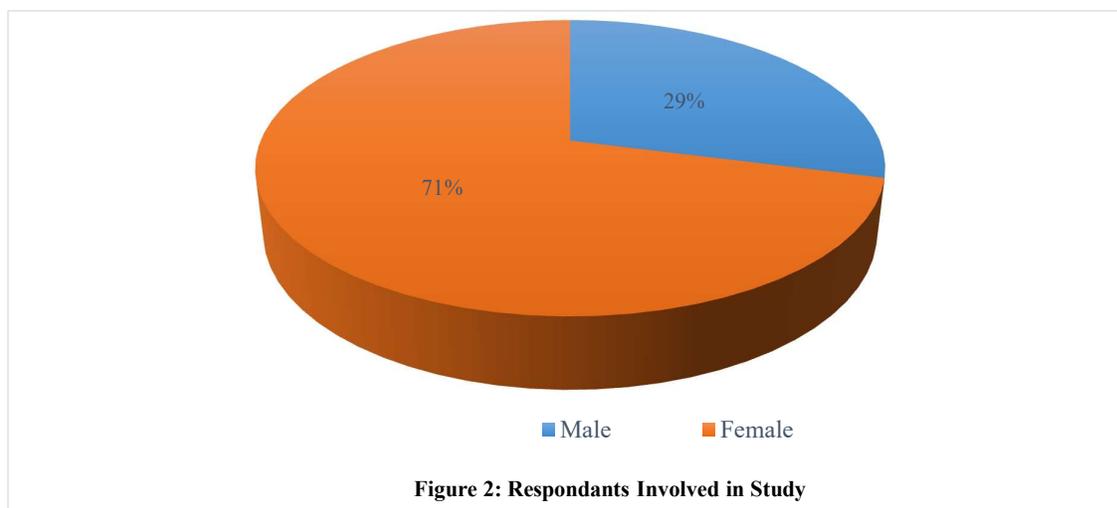
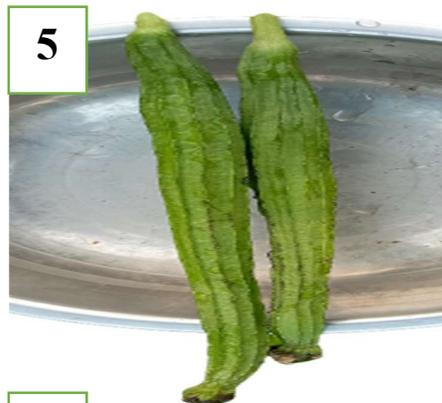
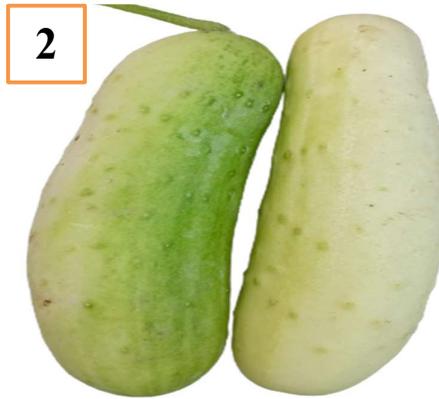
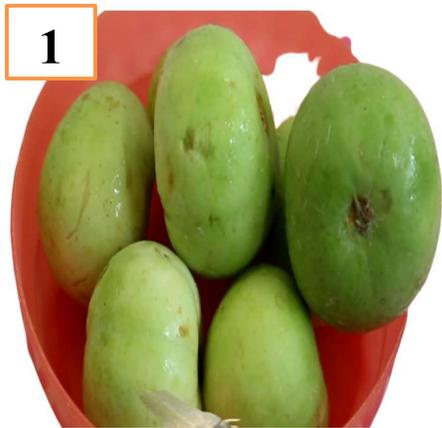


Figure 2: Respondants Involved in Study

### Geographical Distribution in India:

In India, the east, northeastern states (AS, MN, MZ, TR, SK, WB), peninsular states (KL, KA, TN, AP), and Bangladesh have the greatest concentration of Cucurbitaceae family plant species (**Figure 1**). The least number of plant species in the Cucurbitaceae family can be found in the western Himalayan regions of JK and HP. Because of the diverse range of climatic zones, India and other parts of Western Asia are the birthplace of many medicinally significant species in the Cucurbitaceae family. Plants are predominantly grown in the Indian states of UP, UK, MP, WB, GJ, BR, KA, TN, and MH [20].

Certain species that are present in the Himalayan foothills cannot be grown because of their intense bitterness, dormancy in the seeds, and delayed maturation. Warm temperatures encourage rapid seed germination in the Cucurbitaceae family of plants, which also benefits from loamy soil that is primarily endowed with moisture and nutrients. For the majority of plants in this family to flourish, they need well-irrigated, fertilized ground with lots of vertical and horizontal growing rooms, well-drained soil that contains clay and sand, and the ability to withstand possible frost during cultivation. Table 2 describes the regional distribution of plants in the Cucurbitaceae family [20].



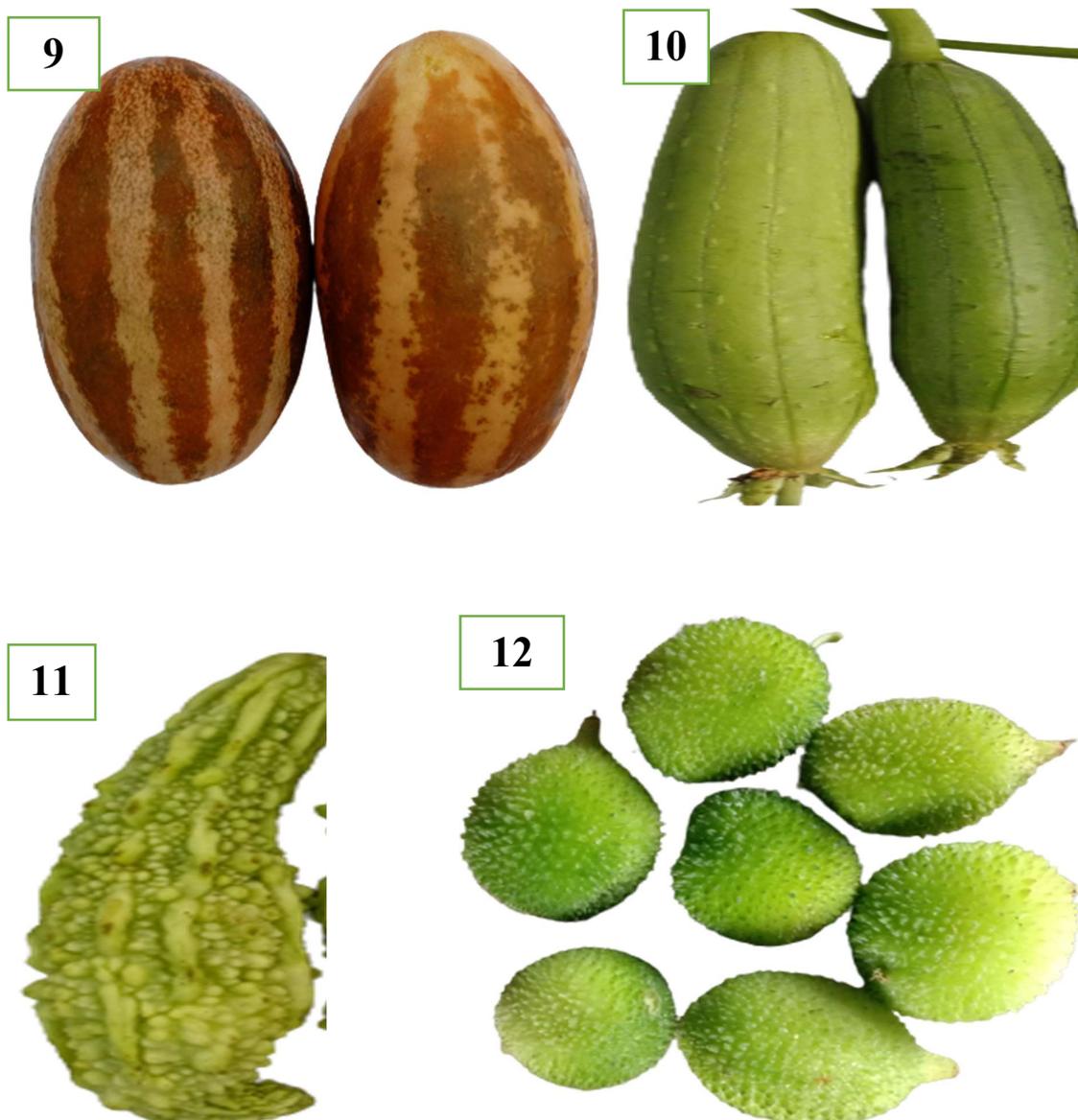


Figure 3: Fruits of Family Cucurbitaceae {1. *B. fistulosa* 2. *C. sativus* L. 3. *C. pepo* L. 4. *L. siceraria* 5. *L. acutangula* L. Roxb 6. *M. charantia* L. 7. *C. colocynthis* 8. *C. grandis* L. 9. *C. melo* subsp. *agrestis* var *conomon* 10. *L. cylindrica* M. Roxb 11. *M. charantia* Linn. var *abbreviata* Ser. 12. *M. dioicea* Roxb.} used by tribal communities as vegetables

### Taxonomic diversity, life forms, and plant parts used:

Of the 122 responders, a total of 12 vegetables were recorded, as shown in Table 2. The family Cucurbitaceae includes all known wild and cultivated vegetables. In their documentation of traditional vegetables, it was discovered that

Cucurbitaceae constituted the biggest number of species utilized for vegetables [10, 21].

In the Cucurbitaceae family, all edible fruit vegetables are climbers in their habitat, and mostly plant parts are used for vegetables as fruits consumed by the tribal communities. Out of which 50 % of fruits are cultivated

and 50 % of vegetables are wild as shown in **Figure 4**. Most of the fruits are sold in the local markets of the study area but some fruits are sold in the local markets to date (**Figure 5**). Most of the vegetables mature and immature fruits are chopped into small slices and are mixed with cereals for making vegetables. The frequency index is higher in the case of cultivated vegetables concerning

wild cucurbits. In cultivated cucurbits highest frequency index is seen in *Cucumis sativus* L. and lower in *M. charantia* L. and in wild cucurbits highest frequency index is shown in *Cucumis melo subsp. agrestis var conomon* and lower in *Citrullus colocynthis* L. as indicated in Fig. 4. The reason behind the lower frequency index in some vegetables is the bitterness of these fruits.

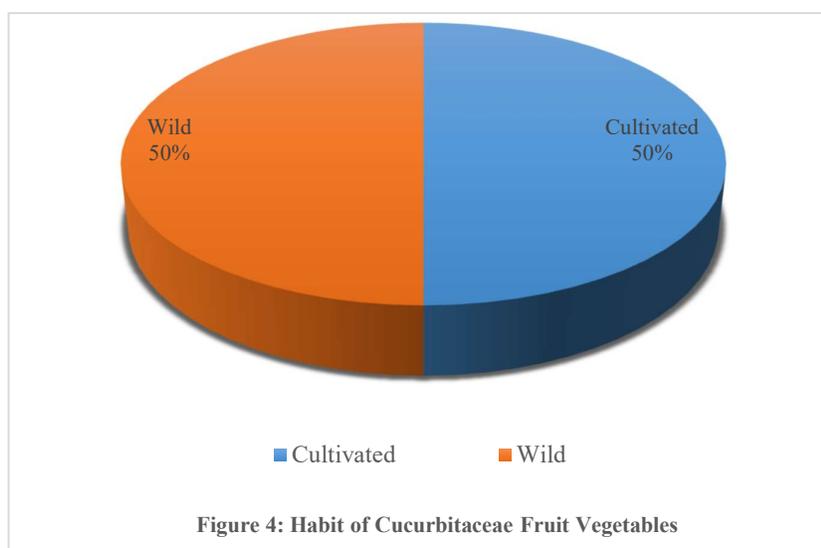


Figure 4: Habit of Cucurbitaceae Fruit Vegetables

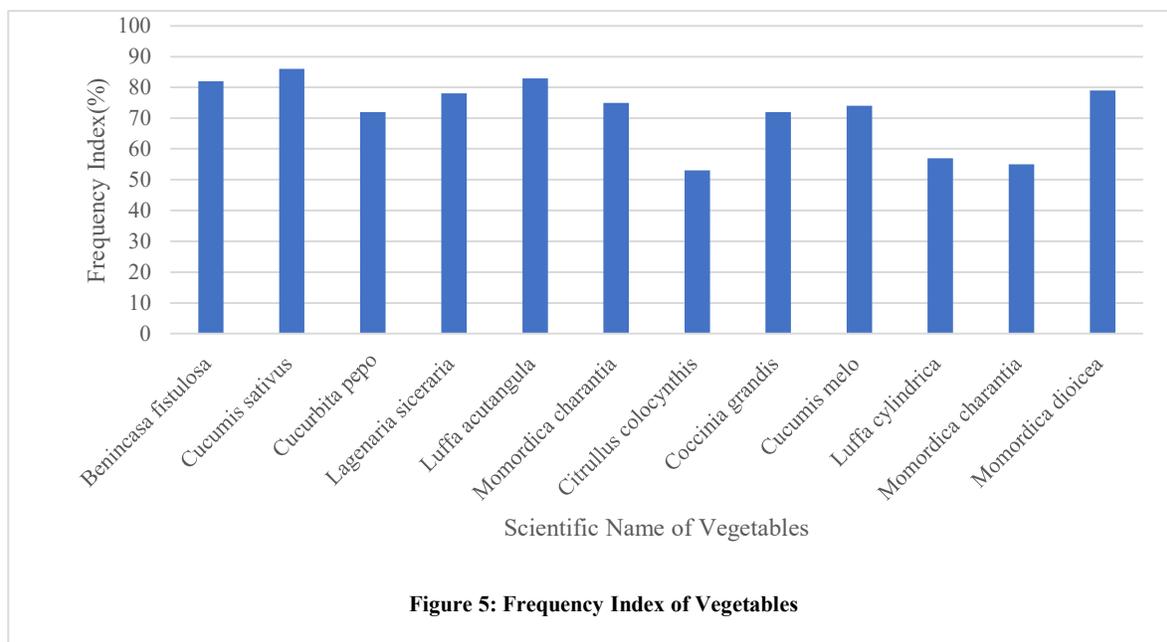
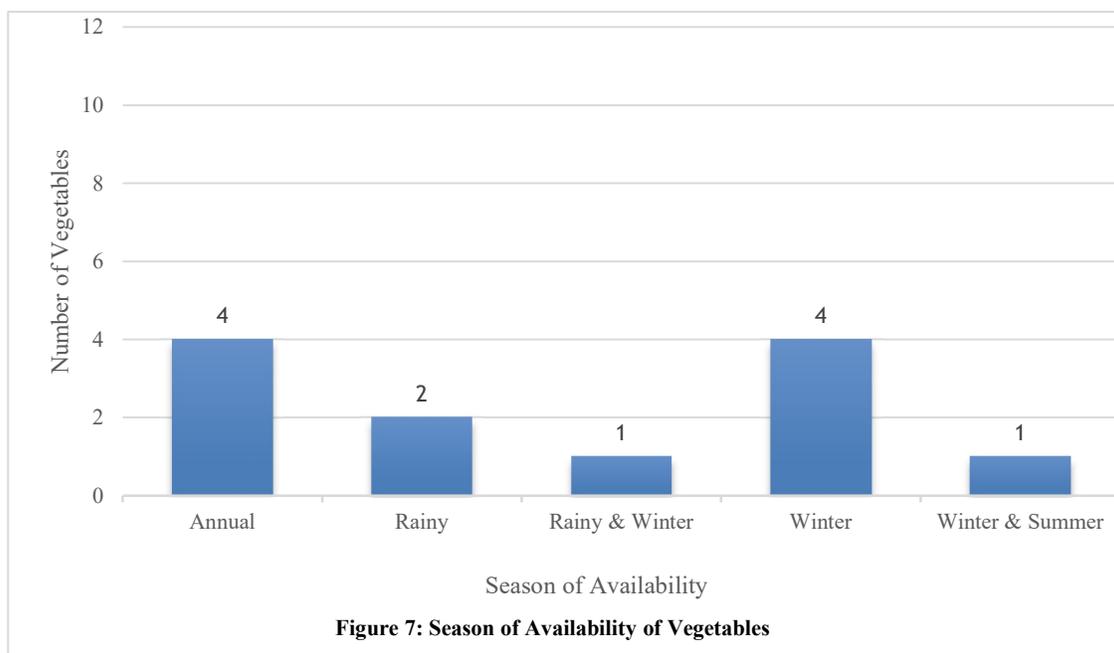
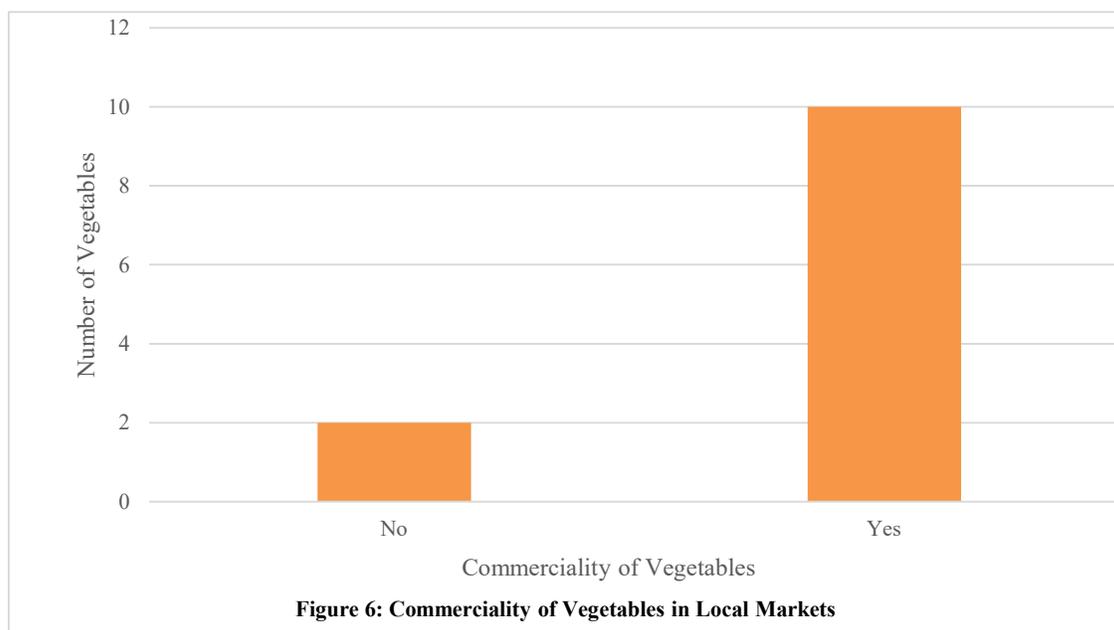


Figure 5: Frequency Index of Vegetables



In the Cucurbitaceae family generally, fruits are used for making vegetables but in addition to this Cucurbitaceae fruits are also used in making curry and many gourmet dishes in *B. fistulosa*, fruit slices are also

eaten by adding a small amount of salt to make it testier in *C. sativus* L., boiled fruit slices are used to make “Kheer” by adding sugar in it in *Cucurbita pepo* L., fruits slices are used in making Bhajiya in *L. siceraria*

(Mol.) Standl. and *L. cylindrica* M. Roxb, pickles in *C. colocynthis*. Fruits of *C. melo* subsp. *agrestis* are used for the preparation of sambar, curry, chutney, dosa juice, and pickles.

#### Medicinal applications and dosage:

Cucurbitaceae fruits were frequently consumed during fruiting seasons as indicated in **Table 2** and **Figure 4** and these fruits have medicinal and pharmacological activities.

**Fruit:** The fruits of *B. fistulosa* are well recognized for their anthelmintic, cardiovascular, gastrointestinal, and neurological system-improving properties. *C. sativus* L. fruit helps with sunburn, healthy hair development, skin issues, and the treatment of puffiness beneath the eyes. *C. pepo* L. fruits are cooling, laxative, and beneficial for the eyes, throat, and teeth. They also lower fever. Fruit from *L. siceraria* has historically been used as a diuretic, anti-inflammatory, expectorant, cardiogenic, aphrodisiac, and general tonic. It is also used as a liver tonic to treat liver diseases and pain. According to Deshpande [22], Lagenin which was separated from the seeds has anti-HIV, anticancer, immunoprotective, and antiproliferative qualities. *L. acutangula* Roxb fruits have nutritious, demulcent, diuretic, and blood-purifying properties. They also help prevent worms, sunburn, and premature graying of the hair.

Ripe *Colocynthis* fruit is massaged by individuals with excruciating headaches and arthritis. Diabetes is treated with fruit. *C. grandis* L. fruit and leaves are used to treat a variety of conditions, including snakebite, jaundice, stomach pain, oral lesions, insanity, diabetes, anorexia, asthma, fever, dropsy, catarrh, epilepsy, gonorrhoea, acne, typhoid, and tongue lesions. The flower is used to treat mental disorders, edema, sedatives, hypertension, dermatitis, leucorrhoea, hematemesis, loss of appetite, baldness, scar removal, respiratory issues, and lung disorders [23]. The fruit of *C. melo* subsp. *agrestis* var. *conomon* has a stomachic effect, while the seeds have anthelmintic, febrifuge, antitussive, and digestive properties [24].

*L. cylindrica* astringent, cooling, strengthening, aphrodisiac, indigestible, expectorant, diuretic, stomachic, demulcent, productive of loss of appetite, purifies the blood, allays thirst, cures biliousness, good for sore eyes, scabies, and itches, *M. Roxb* fruits are carminative, laxative, depurative, emollient, expectorant, and tonic [25]. Wild bitter gourd (WBG) demonstrates its anti-inflammatory and anti-diabetic properties. Additionally beneficial in treating conditions like atherosclerosis, colitis, asthma, multiple sclerosis, and inflammatory bowel disease [26-29]. *M. dioicea* Roxb. according to Kirtikar and Basu [30], fruits are an alexiteric and

stomachic laxative that also treat "vata" biliousness, asthma, leprosy, bronchitis, fever, tumors, "tridosha," urine discharges, excessive salivation, and cardiac problems.

**Fruit Juice:** The *C. sativus* L. fruit juice softens skin texture, which is beneficial for weight loss. Seeds are used to combat tapeworms and intestinal worms in cooling. beneficial for bronchitis, diuretics, anthelmintics, burning sensation, fever, and constipation [31]. *L. siceraria* fruit juice with lime helps prevent tooth decay, fight constipation, and lessen urinary tract infections. The juice of the leaves also treats baldness. The bitter fruit juice of *M. charantia* L. is used as a medication for rheumatism, diabetes, leprosy, fever, sexual dysfunction, and pain. Additionally, the extract works effectively to treat wounds, burns, itchy skin, anemia, malaria, cholera, and jaundice.

**Seeds:** *C. pepo* L. seeds decreased the number of tapeworms [32]. The cooling properties of *L. siceraria* seeds were utilized to treat headaches. *L. acutangula* L. Roxb seeds are used topically. seeds and roots to treat syphilis and diarrhea, as well as to drive out worms [25]. An anthelmintic seed from the fruit of *M. charantia* L. aids in the removal of parasitic and intestinal worms [33, 34]. The powdered seeds of *C. melo* subsp. *agrestis* var *conomon* is used as a vermifuge; the resulting emulsion is then ingested [35].

*L. cylindrica* Roxb seeds are demulcent, expectorant, and used in anti-dysentery, anti-inflammatory, anti-fungus, analgesic and sedative, anti-myocardial ischemia, anti-hyper triglyceride, immunostimulant, anti-allergy, anti-asthma, and expectorant effects; they are also used in heart stimulation, anti-HIV activity, anti-acute hepatic injury, and cathartic.

Table 2: Ethnomedicinal and Pharmacological application of certain fruit vegetables of the Cucurbitaceae family

Sr. No.	Scientific, English, and Local Name	Habit of Plants	Distribution In India	Utilization/ Edible Part	Season of Availability	Commercially Sold	Frequency Index (FI)	Method Of Consumption	Ethnomedicinal and Pharmacological Uses
1.	<i>Benincasa fistulosa</i> (Round/apple gourd/ Tinda/ Dil-Pasand)	Cultivated	PB, RJ, UP.	Fruits	Annual	Yes	82	This unusual gourd, which resembles a squash, is indigenous to India and is used extensively in curries and other gourmet meals.	Tinda is best known for its beneficial effects on the digestive system, anthelmintic, and cardiovascular, improving circulatory and nervous systems.
2.	<i>Cucumis sativus</i> L. (Cucumber/ Khira Kakadi)	Cultivated	Northern India (Ganges region)	Fruits	Annual	Yes	86	Immature fruits are chopped into small slices and are mixed with cereals for making vegetables. These chopped slices also eaten by adding a salt to make it testier.	The fruit helps with sunburn, healthy hair growth, skin issues, and the treatment of swelling under the eyes. Fruit is thought to be essential for weight loss; its juice softens the texture of the skin. Seeds are used to prevent intestinal and tapeworms from cooling. Beneficial for bronchitis, diuretics, anthelmintics, burning sensation, fever, and constipation [31].
3.	<i>Cucurbita pepo</i> L. (Pumpkin/ Kashibhopala)	Cultivated	AR, AS, BR, DL, GA, HP, KA, KL, MP, MH, MN, MZ, PB, TN, TR, UP.	Fruits	Winter	Yes	72	Immature fruits are chopped into small slices and are mixed with cereals for making vegetables. Mature fruits boiled, slices are used in "Kheer" by adding sugar.	Fruits are cooling, laxative, better for teeth, throats, and eyes, and they lower fever. Fruit softens the skin and gets rid of blemishes and pimples by applying pulp, while seeds lessen tapeworms. As a diuretic, tonic, and remedy for bronchitis, seeds are also used to treat nephritis, other urinary tract issues, and prostate issues [32].
4.	<i>Lagenaria siceraria</i> (Mol.) Standl. (Bottle gourd/ Lauki)	Cultivated	Native and cultivated throughout India.	Fruits	Rainy & Winter	Yes	78	Fruit vegetables are used throughout India. The fruit has light green smooth skin and white flesh. Collected fruits are sliced into small pieces and used in making Bhajjiya.	Urinary tract infections are decreased by gourd juice and lime. Juice from leaves can help prevent tooth decay, treat baldness, and fight constipation. <i>Lagenaria siceraria</i> leaves are used as an emetic in a decoction made with sugar, which is also used to treat jaundice. Additionally, leaves are employed as a diuretic, antibilious, and alternate purgative. Seeds were utilized as a cooling agent and headache reliever. The fruit has long been used as a diuretic, expectorant, anti-inflammatory, cardiogenic, aphrodisiac, and general tonic. It is also used as a liver tonic to treat liver diseases and pain. According to Deshpande [22], Lagenin which was separated from the seeds has anti-HIV, anticancer, immunoprotective, and antiproliferative qualities.
5.	<i>Luffa acutangula</i> L. Roxb (Ridge gourd/Dodaka)	Cultivated	Native and cultivated throughout India.	Fruits	Annual	Yes	83	Fruits are used as vegetables.	Fruits have nutritious, demulcent, diuretic, and blood-purifying properties as well as anti-worm properties. Fruits are used to prevent sunburn and early hair graying, and seeds are used to cure skin conditions. seeds and roots to treat syphilis and diarrhea, as well as to drive out worms [25].
6.	<i>Momordica charantia</i> L. (Bitter gourd/ Karale)	Cultivated	Western & Eastern Ghats, CG, JH and all over Central and South India.	Fruits	Annual	Yes	75	Fruits are sliced into small pieces, and boiled in slightly warm water to remove excess bitterness. Then fruit slices are fried and mixed into a gravy to make vegetables.	Fruit juice, which has a bitter taste, is used as a medication to treat rheumatism, diabetes, leprosy, fever, sexual dysfunction, and pain. Additionally, the extract works effectively to treat wounds, burns, itchy skin, anemia, malaria, cholera, and jaundice. An anthelmintic seed from the fruit aids in the removal of parasitic and intestinal worms [33,34].
7.	<i>Citrullus colocynthis</i> (Bitter)	Wild	AP, AS, BR, JH, DL, GA, GJ, KA, KL,	Fruits	Winter	Yes	53	To lessen bitterness, fruits are sliced into thin pieces and cooked in slightly warm water. The water is then drained out. To	The entire plant, including the pulp, seeds, roots, and leaves, is utilized medicinally. People with severe headaches and arthritis massage ripe fruit. Diabetes is treated with fruit. Used for jaundice, rheumatoid

	apple/Channi/ Indayan)		MH, OR, PB, RJ, TN, UP.					produce veggies, these slices combined with mung dal. Additionally, pickles made with immature fruit slices.	arthritis, cancer, painful menstruation, and asthma are leaves and roots. According to Shrivastava and Roy [32], its infusion has anti-inflammatory, diuretic, and leprosy-curing properties.
8.	<i>Coccinia grandis</i> L. (Ivy gourd/ Tonduli)	Wild	AN, AP, AS, BR, JH, GA, GJ, HP, KA, KL, LD, MP, MH, MN, OR, RJ, TN, TR, UK, WB.	Fruits	Rainy	Yes	72	Unripe fruits are served with udid dal or a cup as a vegetable. (Dried fruit relieves eczema; green fruit heals tongue sores).	Treatments for snakebite, jaundice, stomach aches, oral lesions, anorexia, diabetes, asthma, fever, dropsy, catarrh, epilepsy, and gonorrhoea include fruit and leafy vegetables. Acne, typhoid, tongue lesions, and mental disorders are treated with fruits; dermatitis, hypertension, edema, hematemesis, leucorrhoea, baldness, scar removal, respiratory issues, and lung disorders are treated with flowers [23].
9.	<i>Cucumis melo</i> <i>subsp. agrestis</i> var <i>conomon</i> (Golden cucumber/ Valak)	Wild	AP, AS, KA, KL, MP, MH, MN, RJ, TN, TR, UP.	Fruits	Winter & Summ er	Yes	74	Ripe fruits are utilized for desserts, whereas unripe fruits are used as vegetables. Fruits are used to make pickles, chutneys, sambars, curries, dosas, and juice.	While the seeds are febrifuge, anthelmintic, antitussive, and digestive, the fruit has a stomachic effect [24]. As a vermifuge, seeds are utilized; the powdered seeds are ingested as an emulsion [35].
10.	<i>Luffa cylindrica</i> M. Roxb (Sponge gourd/ Parsa- Dodaka)	Wild	Native and cultivated throughout India.	Fruits	Winter	No	57	Immature fruits are used as a vegetable. Immature fruits chopped into straight line slices, these slices are used for making "Bhajiya" a popular and delicious food item prepared by tribal peoples of Maharashtra.	In addition to being useful in treating fever, syphilis, tumors, bronchitis, and leprosy, the fruits are also carminative, laxative, depurative, emollient, expectorant, and tonic. Known for their expectorant and demulcent properties, seeds are used to treat a variety of conditions, including dysentery, hypertriglyceridemia, inflammation, fever, myocardial ischemia, immunostimulant, allergy, asthma, anti-HIV activity, cardiac stimulation, emetic, and cathartic. Fruit has many uses, including cooling, strengthening, aphrodisiac, astringent to the bowels, indigestible, expectorant, diuretic, stomachic, demulcent, effective against phlegm and loss of appetite, blood purification, quelling thirst, biliousness treatment, and relief from itching, scabies, and sore eyes [25].
11.	<i>Momordica</i> <i>charantia</i> Linn. var <i>abbreviata</i> Ser. (Wild bitter melon/ Rankarela)	Wild	Western & Eastern Ghats, CG, JH, Central and South India.	Fruits	Winter	No	55	Locals use mature fruits not only as a vegetable but also as a traditional remedy to ward against illness.	Wild bitter melon (WBG) demonstrates its anti-inflammatory and anti-diabetic properties. Additionally beneficial in treating conditions like atherosclerosis, colitis, asthma, multiple sclerosis, and inflammatory bowel disease [26-29].
12.	<i>Momordica dioicea</i> Roxb. (Spine gourd/ Kartoli)	Wild	Deccan plateau and Central India.	Fruits	Rainy	Yes	79	The fruits are prepared like vegetables.	The leaves heal "tridhosa," fever, asthma, bronchitis, high cough, piles, and change "pitta." They are also aphrodisiac and anthelmintic. The fruit is alexiteric, a stomachic laxative, and it treats a variety of ailments, including biliousness, asthma, leprosy, bronchitis, fever, tumors, urine discharges, excessive salivation, and heart problems [30].

**CONCLUSION:**

An increasing number of people nowadays focus their diets mostly on fruits and vegetables. Though certain members of the Cucurbitaceae family are still considered to be wild, the family is well-known and grown around the world, especially in India. According to Dhiman [2], cucurbit fruit seeds have also gained popularity as a nutritious snack. Cucurbits have purgative qualities and were used in traditional medicine to cure kidney and bladder stones [36,37]. The current study's findings unequivocally showed that people believe plants in the Cucurbitaceae family to have therapeutic properties. Furthermore, the findings in this paper will give Nanded District residents a useful reference for selecting vegetables with potential medical benefits.

Community people in Nanded district believe that eating enough bitter vegetables from the Cucurbitaceae family improves health by reducing the risk of diabetes and hypertension. According to Rajasree [38], Cucurbit plants are a great source of protein and contain a variety of biological substances that are essential for optimum health. Studies revealed by Rahman and Sousa-Poza [39], which provides important support for these findings, is that eating veggies gives us the right nutrition for a healthy lifestyle.

The Cucurbitaceae species that this review has discovered are abundant in medicinal

resources. Therefore, comprehensive pharmacological research is needed, along with step-by-step analyses including in vivo, in vitro, clinical, mechanisms of action, and safety assessment. This could lead to the creation of fresh, potent medications that could help treat a range of conditions, from common illnesses to serious illnesses.

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