

Shak (Vegetables) as Traditional Medicine in Medinipur District in West Bengal

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Abstract:

Various traditional vegetables are grown year-round in urban and rural areas of Medinipur District in West Bengal. Most vegetables naturally have numerous nutrients like potassium, dietary fiber, folate, vitamins A, C, K and B-complex, etc. According to the basic concept of local people and research, those who consume at least 1 to 3 servings of shaks (vegetables) daily have the lowest risk of developing several ailments, such as cancer, heart disease, urinary problems, etc. This paper attempts to aware the common people anywhere and in any place to protect himself or herself from different diseases. So, take some vegetables into a daily diet with a meal or any other way. The best result will come from maintaining daily routine service or intake at certain times. Enjoy this article's shak (vegetables) to complement your normal daily diet. Daily vegetable consumption is crucial for good health. They deliver vital nutrients like fiber, antioxidants, vitamins, minerals, and other foods. Enjoy a variety of vegetables every day to obtain the most health advantages. Numerous traditional vegetables in the Medinipur District have therapeutic properties. These vegetables are frequently consumed and used medicinally by rural, urban, and cosmopolitan residents without regard to dosage. According to the paper, research is crucial for these shak (vegetables). In Medinipur, various traditional vegetables are grown around the year in the whole district. According to a growing body of evidence, persons who consume at least 1-2 servings of shak (vegetables) daily have the lowest chance of developing various diseases. Healthy vitamins, minerals and dietary fibers are found in every vegetable. Certain veggies may benefit particular people more, depending on their diets, general health, and nutritional requirements. Those shak (vegetables) deliver vital vitamins, minerals and other nutrients, such as fibre and antioxidants.. Healthy vitamins, minerals and dietary fibers are found in every vegetable. Certain veggies may benefit particular people more, depending on their diets, general health, and nutritional requirements. Those shak (vegetables) deliver vital vitamins, minerals and other nutrients, such as fibre and antioxidants.

Introduction:

It's hard to find people with no physical problems these days. Sugar, pressure, cholesterol, triglycerides, liver problems, hormonal imbalances etc. are causing people distress, fatigue, and shortening life span. As a result, from morning to night – the list of medicines keeps getting longer and longer. Very few people have the opportunity to eat rice with a five-course dish. People have forgotten the habit of eating bitter in the first leaf or eating rice with vegetables. Neither bitters nor vegetables are on the list of preferences and the priority is chicken-mutton. Eating too much chicken is not good for health at all. From doctors to nutritionists alike,

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everyone says to avoid red meat altogether. Many diseases like cancer, diabetes and obesity are the source of problems, but this meat.

In earlier days, people's demand for food was less. Local vegetables in the fields were the hope. Daily life was spent with fresh fish from the pond, vegetables, fruits etc. Vegetables fell regularly. There was no inclination towards exotic fruits and vegetables. They looked healthy by eating local food. The incidence of diseases was also low because of that. This vegetable grows the most in abandoned land or potato-garlic-onion fields. It grows neglected even near the drains of the house. No care, no fertilization required. These vegetables are as low in cost as they are packed with nutrients. From phlegm, cough and bile to diabetes - the solution to all problems lies in this herb. Contains a lot of vitamins. And so, this vegetable has a role in increasing the immune system of the body, preventing the problem of gas heartburn and reducing weight (Ahmad et al., 2016; Almed, 2019; Bachheti et al., 2014; Chandrasekara & Kumar, 2016; Das, 2022; Das et al., 2013; Datta et al., 2011; Ghosh et al., 2014; Gupta et al., 2004; Liu et al., 2011; Mirza and Navaei, 2006; Busmann & Weckerle, 2012).

The topic of those vegetables from the Medinipur region of India came up in our discussion. This has been making people's daily lives absolutely dependent on survival for ages, even in the current situation (Das, 2022). Also mentioned is the general identity of each herb, its various chemical constituents, medicinal properties and how it is used.

Description of Shak (Vegetables) as Traditional Medicine:

- Common name:** Palak shak (Spinach leaf)
Scientific name: *Spinacia oleracea* L.
Family: Amaranthaceae.



Figure 1. Spinach leaf

General Characteristics:

Spinach is green in appearance. It is generally eaten cooked. Spinach is in demand in various parts of India, including West Bengal. Rich in various chemical elements and vitamins, this vegetable fulfills the various needs of the human body. However, it is taken as food in different ways in different places.

Ingredients/Chemical Composition:

All important vitamins stored in spinach are Vitamin A, Vitamin C, Vitamin K, Magnesium, Manganese, Iron, etc. It also contains important elements like vitamin B, riboflavin and vitamin

B6, vitamin E, calcium and potassium. Not only that, but it also contains fiber, fatty acids, palmitic acid, linoleic acid, etc.

Medicinal Values:

1. Medicinally, spinach is used in the treatment of stomach and intestines.
2. It is used to relieve fatigue.
3. It is also used as a blood-builder and appetite stimulant.
4. Spinach is rich in iron, vitamins C and E, potassium and magnesium. As a result, it plays an important role in increasing the body's immunity.
5. It is now believed that this herb also contains anti-cancer properties.

How to use:

1. Many people consume spinach juice.
2. Many people eat its leaves boiled.
3. Spinach is eaten as salad in some regions.
4. But the most common method is to cook spinach.
5. In Bengal, it is used as a mixed vegetable, particularly in Midnapore region.

Common name: Lau shak (lau leaf)

Scientific name: *Lagenaria siceraria*

Family: Cucurbitaceae

2.



Figure 2. Lau shak

General characteristics:

It is a climbing plant. It's leaves are green, which looks a lot like our heart. Of course, not only in Medinipur but all over India and even Bangladesh, Gourd is grown in a wide area. It is one of the vegetables that is easily available here and there for the residents.

Ingredients/Chemical Composition:

All the important ingredients we find in gourds are vitamins, flavone-C glycosides, fatty acids and omega-3. Also, several other minerals, including iron, potassium, magnesium and zinc, are essential.

Medicinal value:

It contains several important components of a balanced diet in the human body. Apart from this, gourd greens are used for various problems like fever, cough, pain and asthma. Many people use it as a pain reliever.

How to use:

It is generally recommended that the gourd be washed and cooked in clean water.

3. **Common name:** Kumro shak (pumpkin leaf)
Scientific name : *Cucurbitaceae*
Pepo var moschala
Family : Cucurbitaceae



Figure 3. Kumro shak

General Characteristics:

Pumpkin leaves are quite large in size. These leaves are dark green in colour. The stem of the pumpkin plant is round but hollow. Pumpkin leaves are round and veined.

Constituents/Chemical Composition:

Pumpkin leaves also contain several important chemical constituents. For example, calcium, iron, magnesium etc. Also acts as a source of fibre and tannins.

Medicinal Values:

1. Pumpkin generally energizes the body.
2. It helps us in mental treatment by keeping the brain cool.
3. Pumpkins are used to relieve constipation.
4. Pumpkin contains several essential minerals, including potassium, which plays an important role in muscle contraction, maintaining fluid balance in the body, and transmitting chemical signals through neurons.
5. Pumpkin are also particularly helpful in kidney and digestive system functions.
6. It is used to cure infertility problems in both men and women.
7. Many people recommend eating pumpkin greens to increase and improve sperm count in men.

How to use:

Pumpkin is usually eaten cooked fried, alone or in some spices or used mixed up with potato.

4. **Common name:** Methi shak(methi leaf)
Scientific name: *Trigonella foenum graecum* L.
Family: Fabaceae



Figure 4. Methi leaf

General Characteristics:

Methi is a plant belonging to the Fabaceae family. It is a perennial and semi-cereal plant. Fenugreek seeds and leaves are used as a common food ingredient in the Indian subcontinent. Two types of methi leaves are widely cultivated in India. A dark green, oval-shaped and mildly bitter leaf. The other is a small variety with small green leaves with white roots. It is found all over India, including Medinipur.

Constituents/Chemical Composition :

Several important medicinal chemical constituents are present in methi leaves, such as alkaloids, saponins and mucilages.

Medicinal value:

The mixture of fenugreek spice enhances the flavour of food, drinks and tobacco. Fenugreek extract is also used in soaps and cosmetics. Fenugreek is traditionally used to relieve diabetes and increase milk supply in lactating women. All important chemical constituents of fenugreek leaves are carbohydrates, proteins, lipids, alkaloids, flavonoids, fiber, saponins, steroidal saponins, vitamins and minerals, nitrogen, etc.

How to use:

Fenugreek greens are used to make paste like gravies and spices. That is, fenugreek greens are first washed well in clean water and

5.

Common name: Chola shak

(Chickpeas leaf)

Scientific name: *Cicer arietinum*

L.

Family : Leguminosae, Fabaceae



Figure 5. Chickpeas leaf

General Characteristics:

Chickpeas leaf is a plant belonging to the Fabaceae family. It is a perennial. It is known by different names in different places. It is very healthy. A portion of the food was rich in fiber and protein. It plays an important role in controlling blood pressure and blood sugar in the human body. Has a low glycemic index (GI). As a result, chickpeas help regulate cholesterol, triglycerides, blood sugar and blood pressure, maintain a healthy body weight, and support gut health. Hormonal fluctuations, particularly the decline in estrogen, are the cause of many menopausal complaints. Chickpeas are a good source of phytoestrogens, which are plant

compounds that are able to bind to estrogen receptors and replace some of the effects of estrogen that are no longer being produced.

Constituents/Chemical Composition:

Chickpeas' important medicinal chemical constituents are carbohydrates, proteins, fatty acids, linoleic acid, etc.

Medicinal Values:

1. Low glycemic index Chickpeas leaf helps control blood sugar.
2. It helps in weight control.
3. Chickpea leaf is important in maintaining proper heart and intestinal health.

How to use:

1. It is cooked and eaten mixed with various vegetables.
2. Chickpea leaves are often eaten fried in a little oil.

6. **Common name:** Sojne shak
(*Moringa* leaf)
Scientific name: *Moringa oleifera*
Family : Moringaceae



Figure 6. Sojneshak

General Characteristics:

Moringa (scientific name: *Moringa oleifera*) is a plant belonging to the Moringaceae family. This plant is commonly found in tropical regions. Cuttings and seeds propagate this plant. Summer is the perfect time to plant saplings. Many people call the leaves of Sajina tree as miracle leaves. It is considered to be the most nutritious herb in the world.

It acts as an anti-diabetic and helps lower blood glucose levels. Many also use it as an anti-cancer agent.

Constituents/Chemical Composition:

Sajina leaves contain a large amount of bioactive compounds. It is also rich in vitamins, carotenoids, polyphenols, phenolic acids, and glucosinolates.

Medicinal Values:

1. Sajina leaf is used as a healthy food.
2. Sajina Shaka plays a significant role in reducing the burning pain in the human body.
3. Its leaves are used to brighten the skin.

How to use:

1. Sajina leaf paste is used to increase skin radiance. The paste is left on the skin for 10 to 15 minutes and then washed off. This is beneficial.
2. Many people eat vegetables like salad.

7. **Common name:** Alu shak (Potato leaf)

Scientific name: *Solanum tuberosum*

Family: Solanaceae



Figure 7. Potato leaf

General Features:

Potatoes are a very familiar vegetable to us. Its leaves are green in colour. Potatoes are a very important balanced diet. It is rich in vitamin C, which is an anti-oxidant.

Ingredients/Chemical Composition:

All the important chemical ingredients present in potato leaves are vitamin C and potassium. Among the flavonoid components, anthocyanin is the main compound.

Medicinal value:

Potatoes help prevent diabetes, heart disease, high blood pressure, indigestion etc.

How to use:

Potato greens are usually cooked and eaten.

8. **Common name:** Sorche shak (mustard leaf)

Scientific name : *Brassica juncea* L.

Family: Crucifers



Figure 8. Sorche shak.

General Characteristics:

Brassica is a genus of plants in the mustard family (Brassicaceae). It looks green. Members of this genus are commonly known as cruciferous vegetables, cabbage or mustard plants. Many people cook mustard leaves and eat them with hot rice. It is a very nutritious vegetable. Mustard leaves contain several important components that play an important role in skin care in general and diabetes prevention.

Ingredients/Chemical Composition:

Mustard leaves contain many health-enhancing anti-oxidants like beta-carotene, which play an important role in keeping the skin healthy and also reduces the risk of diabetes a lot. All the important chemical elements present in mustard leaves are thiamin, niacin, pyridoxine etc. Vitamin K is also present in mustard leaf.

Medicinal Values:

Various studies have shown mustard leaves to be anti-cancer, antibacterial, antifungal, anti-oxidant and anti-inflammatory.

How to use:

1. In most cases, cooking mustard leaves with spices is common.
2. Some also eat mustard leaf as a salad.
3. Many eat mustard leaves mixed in soups or stews.
4. Some times, the method of frying vegetables with mustard is also common.

9.

Common name: Kolmi shak

(water spinach leaf)

Scientific name: *Ipomoea aquatica*

Family: Convolvulaceae



Figure 9. Kolmi shak

General Features:

Kalmi is commonly known as water spinach. It is a semi-aquatic plant. This plant is commonly found in tropical regions. This plant can be seen more or less all over India, not only in Medinipur and West Bengal. Not only that, but it is also widely cultivated in Southeast Asia, East Asia, and South Asia.

Common people use it to treat jaundice, liver problems, anaemia and improve digestion. It is also used for anti-ageing and relief of acne, eczema and psoriasis.

Constituents/Chemical Composition:

The important chemical constituents observed in kalmi are various vitamins, proteins, sulphurous amino acids and tryptophan.

Medicinal Values:

1. The Folkpeople use this leaf extract to treat jaundice and mental illness.
2. Kalmi works well in relieving piles and nosebleeds.
3. Used as an anthelmintic and in the treatment of hypertension.
4. This vegetable is eaten to improve eyesight.
5. The use of Kalmi herb can be observed in improving hair and skin health.

How to use:

1. Spinach juice contains a lot of anti-oxidants and beneficial compounds, so many people consume spinach juice after twisting it.
2. Applying Kalmi juice on hair roots stops hair loss.
3. Kalmi leaves are cooked and eaten to control blood pressure.

10.

Common name: Susni shak

(Marsilea leaf)

Scientific name: *Marsilea minuta*

Family: Marsiliaceae



Figure 10. Susni shak

General features:

Susni leaf is one of the shak that people living in the Medinipur district of West Bengal keep in their daily diet. It can be called herb. Susni leaf also grows in Central and Southern Europe, Caucasus, Western Siberia, Afghanistan, Southwest India, China, Japan and Vietnam. In some places, it has been used as food for over 3000 years. Susni shak keeps the brain cool. It is diuretic, astringent, febrifuge and refrigerant. In some places, it is also used to treat snake bites.

Constituents/Chemical Composition:

The important chemical constituents found in Susni shak are phenols, flavonoids, tannins, saponins, quinones, terpenoids, coumarins and anthraquinones.

Medicinal value: We commonly use the leaves and shoots of Susni plant as vegetables. Plays an important role in the treatment of cough and respiratory problems. The juice and

decoction of these leaves are used by the people of India and our neighbouring country, Bangladesh, to treat cough and other respiratory problems.

How to use:

1. Generally, this vegetable is eaten in a cooked way.
2. The juice of this leaf is given in the form of a poultice in the treatment of several diseases.
3. Sometimes, the juice of this leaf is recommended.
4. A decoction of Susni leaves is used in the treatment of several diseases.

11.

Common name: Pui shak (Ceylon spinach leaf)

Scientific name: *Basella alba* L.

Family: Basellaceae



Figure 11. Pui shak

General Characteristics:

Pui shak is a very well-known plant in Medinipur region. It is a member of the Basellaceae family and its scientific name is *Basella alba*. It is a climbing plant. Weed grows very fast. This herb has many qualities. This Plays an important role in increasing digestion. Its mucilaginous stems and fiber-rich leaves aid in proper digestion. Eliminates various problems caused by acid. Pui shak is very beneficial for pregnant and lactating mothers. Pui shak is a food rich in vitamin B12, vitamin B6, folic acid, calcium etc.

Constituents/Chemical Composition:

The chemical constituents present in Puisha are fatty acids such as lauric acid, arachidic acid, behenic acid, lignocenaric acid, palmitic acid, stearic acid and myristic acid. Also note the presence of oleic acid, eicosenoic acid, palmitoleic acid, urosic acid, docosonic acid, linoleic acid and alpha-linoleic acid.

Medicinal Values:

1. Pui shak is used as food to keep the stomach healthy.
2. Pui shak is used to remove various problems caused by acid.
3. It is recommended to eat pui shak to increase work capacity and overcome body fatigue or lethargy.
4. Pui shak plays an important role in the formation of blood in the human body.
5. Pui shak is used as food to increase appetite.
6. Many people recommend eating Pui shakas to improve children's overall development and get rid of various ailments.

How to use:

The young leaves of Pui Shak can be eaten like spinach, either raw in salads or boiled, steamed, fried or added to soups, stews and curries.

12. **Common name:** Hingche or Helenchashak (Enhydra leaf)

Scientific name: *Enhydra fluctuans*

Family: Asteraceae



Figure 12. Helenchashak

General Characteristics:

Helencha shak gram is a very well-known Bengal plant. It is also known by different names in the Medinipur region, like- Helencha, Hinch, Hinch, Hinch, Helchi, Teeter Doga, Teeter Shak etc. It is better to call it a type of flowering plant. As mentioned earlier, the scientific name of this herb is *Enhydra fluctuans* and it belongs to the Asteraceae family. Its English name is Common Enhydra, Buffalo spinach, Helancha etc. It is commonly found growing in turbid water. It is bitter in taste and full of medicinal properties. This vegetable is eaten cooked.

Constituents/Chemical Composition:

The active chemical constituents present in Helencha leaves are Germacranolides, Sesquiterpenes, Lactones, Flavonoids, Essential Oils, Steroids, Diterpenoids, Melampolides, Sesquiterpene Lactones etc.

Medicinal or Traditional uses:

Helencha herb has many benefits like – used in herbal treatment for constipation, asthma, nervous system, arthritic pain, itching, burning hands and feet etc. Modern scientific research has also found many of its characteristics, such as anti-oxidant, germ killer, pain reliever, reduces diarrhoea, relieves nervous tension etc. In Ayurveda, Helencha is identified as a blood purifier, choleric, appetite suppressant, analgesic, antiseptic and antipyretic. Kabiraj as recommend eating this vegetable to cure skin diseases. Eating this vegetable regularly increases the amount of haemoglobin in the blood. Helencha is used in treating constipation, asthma, diarrhoea and nervous disorders. After prolonged fever, eating fish broth with Helencha vegetables increases appetite and restores taste in the mouth. Helencha is very useful for skin diseases, itching, indigestion, burning hands and feet, dysentery and bronchitis. Due to their high antioxidant content, Helencha leaves play an important role in preventing cancer.

Applying this herb to the head for headaches reduces the pain. Regular consumption of helencha leaves lowers blood sugar.

How to use:

It is eaten as a vegetable in almost every region of India, not just Midnapore. In the case of curing some diseases, however, the method of using Helencha's juice is common. According to Ayurveda, it has many medicinal properties and is used to cure bilious diseases, convulsions, epilepsy, gonorrhoea, high blood pressure, inflammation, liver diseases, nervous diseases, paralysis, skin diseases etc.

13. **Common name:** Kulekhara shak
(Hygrophila leaf)
Scientific name : *Hygrophila auriculata*
Family : Acanthaceae



Figure 13. Kulekhara shak

General Characteristics:

Kulekhara is known as an essential vegetable to the people of every village in Bengal. It has many medicinal properties. It is a herb. It is commonly found growing in wetlands. Kulekhara is found not only in Medinipur and India but also throughout tropical Asia and Africa.

Kulekhara leaf extract also treats diarrhoea, inflammation, painful stomach disorders and anaemia. The seeds of this plant also have medicinal properties. Kale plays an important role in curing various blood disorders and treating urinary problems.

Ingredients/Chemical compositions :

This plant contains terpenoids, alkaloids, flavonoids, aphrodisiacs, renal tonic etc. as significant constituents.

Medicinal values :

The leaves of Hygrophila are used in several treatments. Such as dysuria, urinary calculi and urinogenital tract disorders such as cystitis. Hygrophila leaves are also used to increase libido and in various sperm treatments. The leaves of this plant are used in traditional medicine to cure rheumatic arthritis, kidney infection, jaundice, gout etc.

How to use :

1. Take a bunch of leaves.
2. Separate from the branch.
3. Rinse thoroughly under running water.

4. Discard any white spots on the side.
5. Boil a glass of water.
6. Add cleaned leaves to it (3-4 leaves).
7. Boil for a few minutes until the water is reduced to half. Strain the water and take it as necessary.

14. **Common name:** Thankuni shak
(Thankuni leaf)
Scientific name: *Centella asiatica*
Family: Apiaceae



Figure 14. Thankuni leaf

General Characteristics :

Thankuni is a climbing herb. In Medinipur, i.e., India and Bangladesh, it is known as Thankuni, but in English, this plant is known as Centella. This thankuni vegetable is eaten in many ways. Some people like to eat it by mixing it with onions and chillies. Many people also consume the juice of Thankuni leaves. No matter how it is consumed, its medicinal properties are maintained to a considerable extent. In general, this Thankunipata is used to treat gas problems, high blood pressure, and various stomach problems to bring taste to the mouth.

Ingredients/Chemical compositions :

The major chemical constituents in the leaves of *Centella asiatica* are betulinic acid, thanchunic acid, isothanchunic acid, asiatic acid, medecassic acid and brahmnic acid. Also contains asiaticside, brahmoside, madasiatic acid, centylose and centeloside.

Medicinal values :

Thankuni leaf tea works very well to calm the mind. This herb is also used to reduce stress and anxiety. This herb is used to improve memory, digestion, and stomach function. Thankuni leaves have also been used for centuries in traditional medicine. Also, in many cases, it is seen that the leaves of this plant are used to remove acne, cure mouth sores, relieve colds and coughs, control diabetes, relieve sore throat, enhance the beauty of the face and reduce the chances of fever.

How to use :

1. Thankuni pata is used for savoury dishes like batter, dal and fry.
2. Traditionally, it was believed that eating a Thankuni Pata Bata at the beginning of a meal could act as an appetite stimulant and help promote nutrient absorption and better digestion.
3. It is said to make juice from this leaf and eat it twice a day to control diabetes.

4. Chewing this leaf increases the secretion of digestive acids, which in turn helps to increase digestion.

5. Applying the juice of this leaf on the face removes nutritional deficiency of the skin, thereby increasing the beauty of the face.

6. The juice of this leaf mixed with a small amount of sugar can cure cold and cough within a week.

7. Many times, it has been observed that the juice of this leaf is consumed on an empty stomach for several mornings to keep away the fever that occurs due to changes in weather.

15. Common name: Pat sakh(Jute leaf)

Scientific name: *Corchorus olitorius*

Family: Malvaceae



Figure 15. Jute leaf

General characteristics:

Jute leaf is a very popular and versatile vegetable. It is rich in calcium, vitamin A, and vitamin C. It helps to increase immunity in the human body. Not only this, but it also keeps the bones strong. Jute vegetables are eaten in different ways. Specially can be eaten fried and cooked like a vegetable.

Ingradients/Chemical composition :

Jute leaf (*Corchorus olitorius*) is consumed in Medinipur and remote parts of India, which are rich in various nutrients. All the medicinal chemical constituents present in jute leaf are — protein, fat, carbohydrates, fibre, calcium, potassium, iron, sodium, phosphorus, beta-carotene, thiamin, riboflavin, niacin, ascorbic acid etc.

Medicinal value :

Corchorus olitorius contains various medicinal chemicals that help reduce anxiety, inflammation, strengthen bones, increase immunity, reduce the risk of heart disease, maintain normal weight, skin health, normal cell formation and wound healing. This plant is also used to improve digestion, relieve colds and cure eye problems.

How to use :

1.They're rich in immune and bone-supporting nutrients like calcium and vitamins A and C, just to name a few.

2. You can enjoy jute leaves by adding them to stews and stir-fries.
3. Alternatively, you can also enjoy them raw by adding them to smoothies and salads, which are healthy and delicious.

16. **Common name:** Neem shak
(Neem leaf)
Scientific name: *Azadirachta indica* L.
Family : Meliaceae



Figure 16. Neem leaf

General Characteristics:

Neem trees are found all over India. It is a tree-like plant. The properties of the neem tree are endless. Neem leaves are an important tool in various treatments in the human body. Neem leaves

Effective against various skin diseases, septic sores and infected burns. Neem leaves are washed in clean water and applied in the form of a poultice or decoction in boils, ulcers and eczema. Neem oil is also used for various skin diseases. Fried neem eggplant with hot rice helps to bring the taste to the mouth. Neem leaves play an important role in blood purification.

Ingradients/Chemical compositions :

Azadirachta indica L. (Neem) contains a variety of medicinal chemicals. This plant has a very important therapeutic role in the plant world. The important constituents present in this plant's leaves are azadirachtin and nimbolinin, nimbin, nimbidin, nimbidol, sodium nimbinat, gedunin, salanin and quercetin.

Medicinal values:

Neem (*Azadirachta indica*) profoundly affects human life due to its medicinal properties. Neem leaves are used in various ways to cure various skin diseases, remove worms, relieve diabetes, cure liver problems, cure loss of appetite, cure any problem of blood vessels, relieve pain caused by body stiffness, relieve fever, cure various eye diseases, to prevent leprosy. Also, this plant is currently being used to treat diseases like cancer.

How to use :

1. Consuming around 4-5 neem leaves daily on an empty stomach is safe.
2. However, using this habit for a short period of time (up to 10 weeks) is recommended because long-term use of heavy doses can negatively affect your kidneys and liver.
3. Neem oil is used on the scalp to get rid of dandruff.

4. Neem oil is used on the scalp to strengthen the hair roots.
5. Applying neem leaf juice to the wound gives relief.
6. Neem leaves are boiled in hot water and used while cleaning various skin diseases such as scabies.

17. **Common name:** Mulo shak(Raddish leaf)
Scientific name: *Raphanus sativus* L.
Family : Brassicaceae



Figure 17. Raddish leaf

General Characteristics:

Mulo shak is known as an important vegetable to the people of rural Bengal. This herb also has many medicinal properties. There are various ways of eating vegetables. Mulo greens are fried in very little oil and eaten with hot rice. Many times, this vegetable has been used to make salad pakora pickles. Mulberry leaves are rich in fibre, vitamin C, copper and folate. These ingredients help the human body control blood sugar, maintain weight balance, and increase immunity.

Ingradients/Chemical compositions:

All the important elements that are present in mulo vegetables are carbohydrates, fibre, protein, thiamin, riboflavin, niacin, vitamin B, folate, vitamin C, calcium, potassium, manganese, phosphorus, iron, magnesium etc.

Medicinal values:

Radish has many medicinal properties. For example, it is used to increase digestion, control blood pressure, increase immunity, increase haemoglobin levels in the blood, and prevent diabetes.

How to use:

1. Daikon leaves go well with oils such as sesame oil.
2. They can be pre-boiled to reduce the characteristic bitterness and greenish taste, but if they are fried in oil, they do not suffer from this, so pre-cooking is unnecessary.
3. Spicy is also mild, making it easy for children to eat.

- 18.** **Common name:** Chalkumro shak (wax gourd leaf)
Scientific name: *Benincasa hispida*
Family: Cucurbitaceae



Figure 18. Chalkumroshak

General characteristics:

Gourd leaf is a popular dish in the Medinipur region and all over India. It is generally eaten cooked. Gourd leaf are hairy when young; when mature, they have a coating of white powdery substance instead of rum. This powder makes it storable for a long time. Apart from India, it is widely cultivated in various countries in Asia.

Ingredients/Chemical compositions:

All the important medicinal chemicals present in wax gourd are — carbohydrates, fibre, protein, vitamins, riboflavin, niacin, vitamin B, vitamin C, calcium, magnesium, iron, phosphorus, potassium, sodium, zinc, selenium etc.

Medicinal values:

The wax gourd vegetable has many immunity properties. For example, it can be said to relieve tuberculosis, maintain the balance of human body weight, take care of skin and hair properly, relieve leprosy, eliminate various harmful bacteria in the intestines, cure gastric diseases, relieve Anasarca and keep the brain healthy and normal. Also, wax gourd is traditionally used to relieve colds, kidney diseases, worm removal and common fever.

How to use:

1. Using wax gourd vegetables in the daily diet is recommended, especially to eliminate iron deficiency in women's bodies.
2. Wax gourd leaves are rich in vitamin C, so applying the juice of this leaf on the wound is beneficial.
3. Wax gourd vegetable curry can be included in the daily diet to strengthen teeth and bones.
4. Consumption of wax gourd leaf sap or juice is very beneficial for maintaining good eyesight.
5. Wax gourd leaf curry is used for skin and hair care.
6. This vegetable can be eaten as a curry to keep blood sugar levels under control.

- 19.** **Common name:** Beto shak
(Bathua leaf)
Scientific name: *Chenopodium album*
Family: Amaranthaceae



Figure 19. Beto shak

General characteristics:

Bathua or Beto Shak, is an ancient plant. It looks green. It is also cooked and eaten as a vegetable. This vegetable has many benefits. The popularity of this herb in Ayurveda is also noticeable. This plant is grown in various winter vegetable fields.

Ingradients/ Chemical compositions:

The chemical elements in bathua leaf are vitamin A, C, B6, potassium, calcium, iron and magnesium.

Medicinal values:

Bathua leaf has several important medicinal properties. It is used to control blood sugar bone problems, relieve toothache, relieve leg pain, cure gum pain, and relieve joint pain. Also, this herb is used to heal blisters, kidney and urinary problems, cure whites, relieve constipation and remove worms.

How to use:

1. The leaves of the Bathua plant are the primary edible part and are commonly eaten as leafy greens.
2. They have a slightly earthy and nutty flavour, which makes them a popular addition to salads, sauces and various culinary dishes.
3. Regular beetroot juice consumption can eliminate kidney and urinary problems.
4. Drinking beetroot juice on an empty stomach is said to eliminate worms.
5. If applied in the form of a bandage on the blistered wound, the wound heals.

General Characteristics:

Gulanck Shak is a well-known herb in the Midnipur region. This herb is very popular in Ayurvedic medicine. In Ayurveda, it is mixed with various herbs to make it a remedy for various diseases. Gulancha works as a versatile and powerful herb. For example –

It works very well in treating chronic fever, improving digestion and treating diabetes. Gulanch is also used to reduce stress and anxiety. Many times, this herb is used to relieve respiratory problems.

20. **Common name:** Gulancho shak
(Giloy leaf)
Scientific name: *Tinospora cordifolia*
Family: Menispermaceae



Figure 20. Gulancho shak.

Ingredients/Chemical compositions:

Several important chemical constituents are present in Gulancho shak. For example – calcium, iron, cobalt, nickel, zinc, titanium, chromium, manganese, chlorine, copper, bromine etc.

Medicinal values:

This herb is used to boost immunity, prevent diabetes and relieve dengue disease. It also has the ability to prevent excessive weight gain. Traditional medicine is used in women to prevent bone loss, relieve colds and coughs, protect mental health, improve digestion, treat heart problems, and prevent cancer.

How to use:

1. Bathua plant leaves are usually cooked and eaten.
2. Some times, the leaves of this plant are used to enhance the flavour of other vegetables.
3. It is also customary to fry this vegetable in very little oil.

21. **Common name:** Jayanti shak
Scientific name : *Sesbania sesban*
Family : Fabaceae



Figure 21. Jayanti shak

General Characteristics:

Jayanti Shak is known as a familiar dish in the Midnapur region. The scientific name of this plant is *Sesbania grandiflora*. It is a fast-growing plant. Its leaves are green in colour and rounded in shape. Depending on the type, white, red and pink flowers can be seen on this tree. Its fruits look like beans. Jayanti Shak has various medicinal properties.

Ingradients/Chemical compositions:

All the active ingredients that we find in jainthi shak are vitamins, carbohydrates, amino acids, proteins, tannins, saponin glycosides and steroids.

Medicinal values:

This herb is used to relieve colds and coughs in children, to cure diabetes, to remove leucoderma, as an anthelmintic, to relieve pain and to relieve smallpox.

How to use:

1. *Sesbania sesban* leaf juice mixed with warm oil and massaged on the baby's chest and back to reduce colds.
2. The juice of this leaf is used to open the blocked nose due to cold.
3. The juice of this leaf is also used to relieve constipation.

22. **Common name:** Red spinach shak

Scientific name: *Amaranthus dubius*

Family: Amaranthaceae



Figure 22. Red spinach.

General features:

Red spinach, from this name, it is understood that it is not green like other vegetables. Its colour is red. Usually, this plant is 30-45 cm in height. However, depending on the species, the leaves of this vegetable are small or large in size. This vegetable is popular as food.

Ingradients/Chemical compositions:

All the active ingredients that are included in red spinach are anti-oxidants, phosphorus, iron, amino acids, potassium, magnesium, etc. In addition, this vegetable contains vitamins A and C, which are very important for the human body.

Medicinal values:

Red spinach, the whole part of this herb has medicinal value. Its leaves, roots and whole plant help to keep the digestive process normal. This herb is used to purify the blood, as a

diuretic, to increase body strength, to refresh the mind, to prevent miscarriage and to reduce the venom of snake bites.

How to use:

This vegetable is very valuable in Medinipur of West Bengal and all over India. Some times, it is eaten as a curry, sometimes fried, and sometimes raw as a salad. But, no matter how it is eaten, its benefits are substantial. Also, taking the juice of its leaves helps in reducing the venom of snake bites. Consuming the boiled plant will help prevent miscarriage.

23. **Common name:** Pointed gourd leaf (potol pata)
Scientific name: *Trichosanthes dioica*
Family : Cucurbitaceae



Figure 23. Potol pata

General features:

This herbaceous vine is a perennial plant. This herbaceous vine grows up to about 5-6 m. Its leaves are dark green.

Ingradients/Chemical compositions:

All the chemical components stored in the leaves of the pointed gourd are vitamin A, vitamin C, tannin, saponin and alkaloids. Proteins also contain tetra and pentacyclic triterpenes.

Medicinal values:

We use the leaves of the pointed gourd for various purposes. For example, its leaves are used to bring taste to the mouth, improve the liver's health, eliminate worms, and relieve nausea.

How to use:

The juice of this plant's leaves is consumed to relieve various diseases. Again, in many cases, the custom of eating by digesting through cooking is also prevalent.

24. **Common name:** Kochu shak (Arum leaf)
Scientific name: *Colocassia sp.*
Family: Araceae



Figure 24. kochu shak.

General features:

This herb can be found all over India, including Manipur in West Bengal. The height of this herb is 30-50 cm. This vegetable can be found in India, Malaysia, Indonesia, and other places.

Ingradients/ Chemical compositions:

All the medicinal chemical components present in arum leaves are protein, calcium, magnesium, iron, vitamin A, vitamin C, Phosphorus, manganese etc.

Medicinal values:

With about 114 genera and 3,750 species, this vegetable is essential for human benefit. This vegetable is analgesic as well as anti-inflammatory and antidiarrheal. It is used to heal wounds, treat piles and heal ulcers.

How to use:

It is usually eaten by cooked.

Common name: Ol shak

25. **Scientific name:** *Amorphophallus paeoniifolius*

Family: Araceae



Figure 25. Ol shak

General features:

This vegetable table is found not only in West Bengal but also in various places in India. It is known to all as a very good food. It contains several important medicinal chemicals which play a very important role in the human body. This vegetable contributes significantly to improving memory concentration.

Ingradients/Chemical compositions:

Found almost everywhere in Bengal, this plant contains several constituents such as tannins, alkaloids, steroids, fats and fixed oils, flavonoids, proteins and carbohydrates.

Medicinal values:

The whole body of this plant is popularly used in the treatment of several diseases like tumours, haemorrhage, cough, bronchitis, asthma etc. It is also used in traditional medicine for vomiting, cough, asthma, haemorrhoids, constipation, flatulence etc.

How to use:

Its leaves and stems are cooked well and eaten as a vegetable.

26. **Common name:** Dhone shak
(Daniya leaf)
Scientific name: *Coriandrum sativum*
Family: Apiaceae



Figure 26. Dhoniya shak

General features:

Coriander is a herb. Leaves are small, green in colour and smooth. This aromatic herb is an annual plant. Stems are numerous and very narrow in appearance. This plant bears small clusters of white flowers. The grainy fruit is produced later from its flower. Fruit is green when raw. Coriander seeds and leaves are used almost everywhere in Bengal as a food spice. It is eaten as chutney, salad and salsa both in this country and abroad.

Ingredients/Chemical compositions:

Fresh green coriander leaves contain linalool (72.7%), terpinene (8.8%), pinene (5.5%), camphor (3.7%), limonene (2.3%), geranyl acetate (1.9%) and p-cymene (1.5%). On the other hand, the oil's composition varies depending on its seeds' maturity.

Medicinal values:

Two important components of coriander leaves are alkaloids and flavonoids. These ingredients help cure liver diseases like biliary disorders and jaundice. Coriander leaves are consumed to maintain the normal functioning of the digestive system and cure intestinal diseases. Also, daily consumption of fresh green coriander leaves helps boost your immune system, reduce high cholesterol levels, normalize your skin, normalize digestion, improve blood sugar levels and increase bone strength.

How to use:

1. Try adding them to pulses, vegetables, salads or rice.
2. For the skin, make a coriander paste, apply it to your skin, and wash it off after 15 minutes.
3. Fresh juice is very beneficial in helping to meet our recommended daily intake of vitamins and minerals.

Conclusion:

Vegetables are significant in terms of nutrients. Almost all veggies naturally contain a few calories from fat. Numerous nutrients, such as potassium, dietary fibre, folate, vitamins A and C, vitamin B-complex, and others, are in significant amounts in nuts. These Vegetables are a

component of plants eaten as food by people and other animals. When applied to plants, the original definition is still frequently used to refer to all edible plant material, including flowers, fruits, stems, leaves, roots, and seeds. Traditional native veggies are abundant in vitamins and nutrients and may positively affect health. The Medinipur district is home to many species of vegetables that are used medicinally to treat various disorders that can be cured. To benefit from as many health advantages as possible, consume a variety of veggies every day. One of the easiest methods to increase health and happiness may be to eat a lot of vegetables. Most nutrients, fibre, minerals, and natural vitamins may be crucial in treating numerous serious illnesses, including those of the heart, kidney, blood, lungs, and neurological system. This article discusses the many listed vegetables' ethnobotanical and medicinal benefits.

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