

Food Plants:

A. Cereals:

1. *Oryza sativa* L.

Family– (Graminae) Poaceae

English name – Rice

Nepali name – Chamal/Dhan

Uses:

- a. It is staple food. It is usually cooked by boiling or steaming and consumed with pulses and vegetables.
- b. Alcoholic beverages like beers, wines are manufactured from rice.
- c. The husks are used as animal feed, fertilizer, fuel.
- d. Straw is fed to livestock as well as making hats and mats.

2. *Triticum aestivum* L.

Family– (Graminae) Poaceae

English name – Wheat

Nepali name – Gahun

Uses:

- a. The flour is used for making bread. It is also used for making cakes, biscuits, pastry, noodles etc.
- b. It is used for production of alcoholic beverages.
- c. Straw is used as fodder and making basket, hats etc.
- d. Grain is also fed to livestock.

3. *Zea mays* L.

Family– (Graminae) Poaceae

English name – Maize

Nepali name – Makai

Uses:

- a. Green cobs are roasted. Dry seeds are popped.
- b. It also produces sugar, flour, oil from young seeds.
- c. Leaves and green stuff are used as fodder to livestock.
- d. It is fermented and distilled to provide different industrial products.

B. Pulses

4. *Cicer arietinum* L.

Family– (Leguminosae) Fabaceae

English name – Gram

Nepali name – Chana

Uses:

- a. The seed is used to make dal.
- b. Whole seed are eaten as raw, roasted or boiled.
- c. The flour of gram seed is used in preparation of sweets.

5. *Phaseolus vulgaris* L.

Family– (Leguminosae) Fabaceae

English name – Kidney bean

Nepali name – Asare simi/Dalo simi

Uses:

- a. The young pods are used as vegetable.
- b. Green pod shells are used in kidney and heart problem.
- c. The ripe seeds are good source of protein.
- d. The green plants are used as cattle feed.

6. *Vicia faba* L.

Family– (Leguminosae) Fabaceae

English name – Broad bean

Nepali name – Bakula

Uses:

- a. The young pods are used as vegetable.
- b. The ripe seeds are roasted and consumed.
- c. The ripe seeds are good source of protein.

7. *Cajanus cajan* (L.) Millsp.

Family– (Leguminosae) Fabaceae

English name – Pigeon pea

Nepali name – Rahar

Uses:

- a. The ripe seeds are cooked and consumed as dal.
- b. The ripe seeds are good source of protein.
- c. The mature tendrils are used as fodder.

8. *Lens culinaris* Medik.

Family– (Leguminosae) Fabaceae

English name – Lentil

Nepali name – Masuro

Uses:

- a. The ripe seeds are used as dal.
- b. It is used to prepare nutritious soup.

c. It is used to remedy constipation.

9. *Glycine max* (L.) Merr.

Family– (Leguminosae) Fabaceae

English name – Soyabean

Nepali name – Bhatmas

Uses:

- a. The young pods are used as vegetable.
- b. The ripe seeds are roasted and consumed.
- c. The ripe seeds are cooked and consumed.
- d. The seeds are also used to extract oil.

C. Oil yielding plants

10. *Brassica campestris* L.

Family– (Crusiferae) Brassicaceae

English name – Mustard

Nepali name – Tori

Uses:

- a. The oil is used for cooking, hair oil and burning purposes.
- b. The leaf is used as green vegetable.
- c. The oil cake is used as manure.
- d. The seeds are used to prepare pickles.

11. *Arachis hypogeal* L.

Family– (Leguminosae) Fabaceae

English name – Ground nut

Nepali name – Badam

Uses:

- a. The oil is used for cooking.
- b. The inferior grade of oil is used in making soap, lubricants, varnishes etc.
- c. It is also used as vanaspati ghee.

12. *Ricinus communis* L.

Family– Euphorbiaceae

English name – Castor

Nepali name – Andir/Anderi

Uses:

- a. The crude oil is used for making transparent soap, perfumes, typewriter ink etc.
- b. The oil is also used in making paints and varnish.

- c. The oil is also used for preserving leather.
- d. The oil cake is used as manure.

D. Vegetables

13. *Brassica oleracea* L. var. *botrytis* L.

Family– (Crusiferae) Brassicaceae

English name – Cauliflower

Nepali name – Kauli/Phulgobhi

Uses:

- a. The inflorescence mainly used as vegetable.
- b. The remaining plant parts are used as cattle feed.

14. *Brassica oleracea* L. var. *capitata* L.

Family– (Crusiferae) Brassicaceae

English name – Cabbage

Nepali name – Bandagovi

Uses:

- a. It is eaten raw or cooked.
- b. It is the chief source of vit. A, B and C.
- c. It is also used as cattle feed.

15. *Lycopersicum esculentum* Mill.

Family– Solanaceae

English name – Tomato

Nepali name – Golveda

Uses:

- a. The fresh fruit are consumed raw in salad or cooked.
- b. It is also used in the form of sauce, ketchup, soup etc.
- c. It is good source of vit. A and C.

16. *Solanum tuberosum* L.

Family– Solanaceae

English name – Potato

Nepali name – Alu

Uses:

- a. It is used as vegetable.
- b. It is also utilized for starch production.
- c. It is also used as cattle feed.

17. *Solanum melongena* L.

Family– Solanaceae

English name – Brinjal

Nepali name – Bhanta

Uses:

- a. Fruit is used as vegetable.
- b. Fruit also provide some amount of iodine.
- c. The leaves are used in bronchitis asthma.

E. Fruits

18. *Mangifera indica* L.

Family– Anacardiaceae

English name – Mango

Nepali name – Aap

Uses:

- a. Fruit is edible. Mesocarp is eaten in raw.
- b. Unripe fruit is used in pickles.
- c. Ripe fruit is used in manufacture of juice, jam, jelly etc.
- d. It is good source of carbohydrate, vit. A and C.

19. *Musa paradisiacal* L.

Family– Musaceae

English name – Banana

Nepali name – Kera

Uses:

- a. The flowers are used as vegetable.
- b. The unripe bananas are used as vegetable and chips.
- c. The ripe fruit is consumed raw.
- d. The fruit contains carbohydrate, fats and protein.

20. *Citrus sinensis* (L.) Osbeck

Family– Rutaceae

English name – Sweet orange

Nepali name – Mausami/Junar

Uses:

- a. Oil obtained from leaves used in perfumes.
- b. Fruit, which is fleshy, edible.
- c. Fruit juice is used to manufacture citric acid.

21. *Vitis vinifera* L.

Family– Vitaceae

English name – Grape

Nepali name – Angur/Dakh/Kismis

Uses:

- a. Fruit is consumed as fresh fruit or processed juice.
- b. It is used to make table wine.
- c. It is used to make juices and jellies.

22. *Pyrus communis* L.

Family– Rosaceae

English name – Pear

Nepali name – Naspati

Uses:

- a. The fruit is eaten raw.
- b. It is good source of vit. B complex and C.
- c. It also contains small amount of phosphorus and iodine.
- d. Branches are use domestically as firewood.

Medicinal Plants: The plants which contain some medical potentialities are known as medicinal plants. They are broadly known as jari-butis. The medicinal plants contain some chemical substances that produce a certain physiological action on the human body.

The various parts of the plant such as roots, rhizome, bark, stem, leaves, flowers, fruits and seeds are used to obtain various drugs. Some of the medicinal plants are as follows.

1. *Mentha arvensis* L.

Family– (Labiatae) Lamiaceae

English name – Field mint

Nepali name – Pudina, Babari

Parts used:

Leaves, whole plant

Uses:

- a. It serves as a good blood cleanser, since it is antiseptic and anti-bacterial.
- b. Crushed leaves are applied on the forehead to cure headaches.
- c. Leaves are a great remedy to relieve the pain caused during menstrual cramps.
- d. It is used as a carminative and expectorant.

2. *Justicia adhatoda* L.

Family– Acanthaceae

English name – Malabar nut

Nepali name – Asuro

Parts used:

Leaves, roots, flowers and stem bark

Uses:

- a. The leaves are rich in vit. C and carotene and yield an essential oil.
- b. The leaves, flowers, fruits and roots are extensively used for treating cold, cough, asthma, chronic bronchitis etc.
- c. The fresh juice from leaves has been used to treat tuberculosis.
- d. The leaves are known to moderate the hypotensive activity by lowering the blood pressure.

3. *Zingiber officinale* Rosc.

Family– Zingiberaceae

English name – Ginger

Nepali name – Aduwa

Parts used:

Rhizomes

Uses:

- a. It forms one of the main spices for preparing curries and vegetables.
- b. Ginger tea is considered a good remedy for colds.
- c. Ginger paste applied to temples, relieves headache.
- d. The juice of rhizome with honey is given in the treatment of cough and asthma.

4. *Rouwolfia serpentina* (L.) Benth. ex Kurz.

Family– Apocynaceae

English name – Serpentine

Nepali name – Sarpagandha

Parts used:

Root

Uses:

- a. The root paste is given to cattle to treat diarrhea.
- b. It has been used to treat insect stings and the bites of venomous reptiles.
- c. The compound reserpine was used to treat high blood pressure and mental disorders.
- d. The root paste is applied to the wound of snakebite.

5. *Cinnamomum zeylanicum* Blume

Family– Lauraceae

English name – Cinnamon

Nepali name – Dalchini

Parts used:

Bark

Uses:

- a. It is used in dessert dishes since it is delicate in flavour.
- b. It helps in relieving vomiting, due to its mild astringency.
- c. The decoction of bark is used in the treatment of diarrhea, nausea, gastric disorder, vomiting.
- d. It reduces the proliferation of leukemia and lymphoma cancer cells.

6. *Datura stramonium* L.

Family– Solanaceae

English name – Thorn apple

Nepali name – Dhaturu

Parts used:

Seeds, flowers, leave

Uses:

- a. It is internally used for dry mouth, hallucinations (illusion of hearing and seeing) and coma.
- b. The juice of fruit is applied to the scalp (skin of head), to treat dandruff and falling hair.
- c. The plant is used as a poultice (soft medicated) in treating fistulas, abscesses wounds.
- d. The dried leaves are smoked to get relief from asthma.

7. *Papaver somniferum* L.

Family– Papaveraceae

English name – Opium poppy

Nepali name – Afim

Parts used:

Fruit, seed, flower

Uses:

- a. It is widely used for medicine that is considered the most effective way of relieving severe pain.
- b. It is used to remedy cancer, cold, conjunctivitis, diarrhea, dysentery, fever, headache etc.
- c. Seeds are a source of a drying oil that is used for manufacture paints, varnishes and soaps.
- d. The oil cakes serve as a fodder for cattle.

8. *Plantago ovate* Forssk

Family– Plantaginaceae

English name – Blonde psyllium

Nepali name – Ishabgol

Parts used:

Seeds, leaves

Uses:

- a. The herb is anti-toxic, antimicrobial, anti-inflammatory as well as demulcent and diuretic.
- b. It is used for cough and bronchitis.
- c. The broad leaved varieties are used as leaf vegetable.
- d. They are used to treat dysentery, constipation and disorders of the digestive system.

9. *Santalum album* L.

Family– Santalaceae

English name – White sandal wood

Nepali name – Shrikhanda

Parts used:

Bark, wood, oil

Uses:

- a. Oil has antiseptic properties that are used in healing disorders like urinary and genital organs, gonorrhoea, sexually transmitted diseases.
- b. The paste of wood is a cooling dressing in inflammatory (kf]Ng]) and eruptive skin diseases.
- c. The paste applied on the temple relieves headache and bring down the temperature in fevers.
- d. The paste prevents excessive sweating and heals inflamed (kf]Ng]) skin.

10. *Atropa belladonna* L.

Family– Solanaceae

English name – Belladonna/ Nightshade dwale

Nepali name – Beladonna

Parts used:

Root, leaves

Uses:

- a. It is used to treat whooping cough.
- b. It is also used in pneumonia, typhoid fever and other acute disease.
- c. It helps in relieving acute sore throat and congestion (blood hDg]).
- d. It is also used in homeopathic treatment and to relieve headache caused by tension.

11. *Elettaria cardamomum* (L.) Maton

Family– Zingiberaceae

English name – Cardamom

Nepali name – Alaichi

Parts used:

Fruits, seeds

Used:

- a. It is used internally for indigestion, vomiting and pulmonary disease.
- b. It is used to kidney stones and gall stones.
- c. It is used to prevent stomach pain, griping as well as flatulence (jfo').
- d. Seeds are chewed to sweeten the breath and to detoxify caffeine.

12. *Cordyceps sinensis* (Berk) Sacc.

Family– Hypocreaceae

English name – Yarchagumba

Nepali name – Yarsagumba

Parts used:

Whole plants

Uses:

- a. It is used regularly in treatment of patient of leukemia, heart, liver and kidney problem.
- b. It is used as treatment against respiratory ailments such as asthma, bronchitis, cough and lung infections.
- c. It is used to relieve pain and be effective in the treatment of arthritis and cramps.

13. *Azadirachta indica* A. Juss

Family– Meliaceae

English name – Margosa tree

Nepali name – Neem tree

Parts used:

Leaves, flowers, oil, seeds

Uses:

- a. Neem products are antifungal, antidiabetic, antibacterial, antiviral, antifertility.
- b. Its oil is used for preparing cosmetics.
- c. The decoction of root is used to relieve fever.
- d. The extract of neem leaves is helpful in treating malaria and purifying blood.

14. *Ocimum sanctum* L.

Family– (Labiatae) Lamiaceae

English name – Holy basil

Nepali name – Tulsi

Parts used:

Root, leaves, tender of shoot, seeds

Uses:

- a. The oil has potent (strong) antioxidant, anticancer, antiviral and antibacterial properties.
- b. It serves as herbal remedy for disease related to brain, heart, lungs, bladder and kidney.
- c. Dried leaves are used in a snuff, as a remedy for colds.
- d. The herb is used in malaria, bronchitis cough, headache, lung problems, arthritis, and gastric disorders.

15. *Aloe vera* (L.) Burn f.

Family– Liliaceae

English name – Aloe, Indian alces

Nepali name – Ghyukumari

Parts used:

Flowers, root, leaves

Uses:

- a. It is useful for treating dermatitis, cutaneous disorder of skin.
- b. Its juice is tonic and used in jaundice, piles etc.
- c. The juice is used as an effective pain killer.
- d. It is used to make antiseptic, which can kill mold, bacteria and fungus.

16. *Melia azederach* L.

Family– Meliaceae

English name – China berry, Umbrella tree

Nepali name – Bakena

Parts used:

Whole plant

Uses:

- a. Barks are used to treat ringworms.
- b. Flower is applied to eruptive skin diseases.
- c. Decoction of leaf is regarded as astringent and stomachic.
- d. Extract of heart wood is useful in asthma.

17. *Orchis hatagirea* D. Don

Family– Orchidaceae

English name – Orchid

Nepali name – Panch aunle

Parts used:

Root

Uses:

- a. It provides strength to the body.
- b. Root is used in urinary troubles.
- c. The paste of rhizome is applied on cuts and wounds.
- d. The paste is helpful in nervous weakness.

18. *Colchicum laetum*

Family– Colchicaceae

English name – Colchicum

Parts used:

Roots and corms

Uses:

- a. Colchicum is used to treat gout.
- b. Colchicum is used to cure external swelling and pains.
- c. Leaves, corms, roots are poisonous.

19. *Ephedra gerardiana* Wall. ex Stapf.

Family– Gnetaceae

English name – Ephedra

Nepali name – Somlata

Parts used:

Whole plant

Uses:

- a. The liquid extract is used for controlling asthmatic attack.
- b. Decoction of stem and root is a remedy for rheumatism.
- c. It is also used to relieve bronchial asthma.

20. *Digitalis purpurea*

Family– Plantaginaceae

Parts used:

Flowers and leaves

Uses:

- a. It is used in rheumatic fever.

Biotechnology:

It is the branch of science that deals with maximum utilization of living organisms for the benefit of mankind. It is a new discipline of science in which latest technology has been applied to biological organisms for the welfare of society.

Branches of Biotechnology:

- 1. Tissue culture:** It is also known as plant tissue culture. It is a technique of growing plant cells, tissues or organs in an artificially prepared nutrient medium under aseptic condition. It has following benefits:
 - i. rapid multiplication of economically important plants in huge quantities.
 - ii. produce pathogen free plants.
 - iii. wide range of hybridization.
 - iv. increase plant productivity.
 - v. improvement of varieties.
- 2. Protoplast culture:** It is the technique of growing plant by culturing protoplast. It has following benefits:
 - i. produce germ free plants.
 - ii. injection of foreign genes.
- 3. Gene transfer:** Gene is a part of DNA segment of particular character. In this technique, a foreign gene of required character can be inserted into other plants by direct transfer or through various agents.
- 4. Hybridoma technology:** It is a technique used to fuse normal antibody-producing lymphocytes with myeloma cells (a kind of tumor cell) produce a hybridoma.
 - * This tumor cell grows indefinitely to supply of an antibody of choice.
- 5. Genetic engineering:** In this technique, a piece of foreign DNA is inserted into DNA of a vector. The resulting recombinant is multiplied by introducing the vector into a bacterium.

Application of Biotechnoloty:

1. Medical applications:

- a. Antibodies produced by hybridoma technology are used for detection of animal and plant disease.
- b. Vaccines against human and animal diseases such as rabies, polio, tetanus are used to prevent and cure respective diseases.
- c. Diagnosis of diseases such as AIDS, cancer, foot and mouth disease, tuberculosis is done through biotechnological tools like ELISA (Enzyme Linked Immuno-sorbant Assay) test, PCR based technique.
- d. Hormones, enzymes, vitamins and chemicals for pharmaceutical use have been produced with the help of biotechnology. Eg: Insulin.

- e. Antibiotics have been produced from genetic engineering. Various antibiotics have been developed and are being used to prevent and cure bacterial disease.
- f. Gene therapy can be used for treating or even curing, genetic and acquired disease like cancer and AIDS by using normal genes to supplement or replace defective genes or to bolster a normal function such as immunity.
- g. Genetic testing includes techniques in molecular biology to detect genetic diseases.

2. Agricultural Applications:

- a. Small sized propagules are prepared in laboratory for production of large number of plants under aseptic condition.
- b. Apical meristem is cultured to produce a callus which can further divided into large number of individual plants.
- c. The plants having required characteristics are produced.
- d. Organic fertilizer is again prepared by the activity of different types of bacteria and fungi.

3. Fermentation Applications:

- a. Bacteria and fungi are used in dairy industries to prepare milk products such as curd, cheese etc.
- b. Yeast and other fungi are used to prepare bread, alcoholic beverage, solvents etc.
- c. Micro-organisms such as Acetobacter, Lactobacillus helps to produce acetic acid, lactic acid, citric acid etc.
- d. Enzymes such as lignolytic and cellulolytic enzymes have been produced by biotechnology to breakdown cellulose and lignin.
- e. Vitamins can be synthesized by biological means. Riboflavin and vit. B12 are synthesized from fungus.

Bio-fertilizer:

The living organism that grows along with crop and adds nutrients to soil due to the biological activity is called bio-fertilizer. They are again of different types.

- i. Bacteria as bio-fertilizer:** Several symbiotic and non-symbiotic bacteria add nitrogen in the soil by various processes. Eg: *Rhizobium* (symbiotic), *Azotobacter*, *Azospirillum* (non-symbiotic) and bacillus, *Thiobacillus* (phosphate solublizing bacteria).
- ii. Blue green algae as bio-fertilizer:** Some of blue green algae trap atmospheric nitrogen symbiotically where as some of asymbiotically. Mixture of two or more blue green alga produces nitrogenase in heterocysts and makes atmospheric nitrogen available to plants. Eg: *Anabaena*, *Azolla* etc.
- iii. Fungi as bio-fertilizer:** Some fungi symbiotically associate with the root of higher plants. They help in absorption of mineral and water for plants. They also help to convert non-available phosphorus into available form that help in increase of plant and protect against soil pathogens. Eg: Mycorrhiza.

Advantages of Bio-fertilizer

1. They are cheap and sustainable.
2. They lead to soil enrichment.
3. They do not harm to soil, water, air as well as human health.
4. They help in high quality product.
5. They can be cultivated by using local technology.

Limitations

1. They do not show quick response.
2. The nutrient supplied by them is not adequate to meet the total need of crop.

Genetic Engineering:

It is a manipulation of DNA of an organism towards a desired end in a directed and predetermined way. By this process, we obtain permanent and heritable changes in plants and animals for the benefit of mankind. It is also known as recombinant DNA technology or gene cloning.

It provides different varieties of crops with better nutritional status, resistance to insects, pests and herbicides, resistance to fungal, bacterial and viral diseases and resistance to environmental stresses.

Cloning of DNA:

It is the manipulation of DNA of any organism which is completed in three different steps.

1. The DNA of an organism containing the gene of interest is cut into smaller pieces. This gene is called target gene or foreign DNA.
2. The target DNA is joined to a second piece of DNA that can replicate itself and attach any target DNA. The second DNA is called vector. The result of the joining is a hybrid molecule, a hybrid or recombinant DNA.
3. The joined target and vector is then introduced into a living cell. The cell serves as a biological copying machine, making many exact copies of recombinant molecule.

Application of Genetic Engineering

1. Human insulin: Deficiency of insulin hormone causes disease, diabetes mellitus where blood sugar levels become raised with harmful consequences.
To control the sugar level, insulin is taken externally. For this large quantity of insulin produced within limited time. It is only possible with the introduction of genetic engineering. The gene for human insulin is inserted into a bacterium and the bacterium is grown in a fermentor to make large quantities of the insulin.
2. Human growth hormone: Low levels of growth hormone in childhood results in the dwarfism. To treat dwarfism, growth hormone extracted from the pituitary gland of dead human is applied.
Human growth hormone produced by genetic engineering with the help of bacteria. It contains the human gene for the hormone.
3. Interferons: These are the member of large group of proteins which protects from viral infections, intracellular parasites etc. They affect a wide range of target cells and tissues by binding to specific receptors present on the surface of their target cells. They are also produced by genetic engineering.

4. Antibiotics: Antibiotics are compound produced by one micro organism which inhibits the growth of other micro organism. It is also produced by genetic engineering.
5. Recombinant vaccines: Vaccine is a preparation which contains an antigen composed of whole disease causing organisms or parts of such organisms. They are used to confer immunity against antigens.
These vaccines are produced using recombinant DNA technology. The immunogenic proteins from pathogen identified and isolated. Then are expressed in suitable host for mass production.

Possible danger in genetic engineering

1. New allergens in the food supply: Transgenic crops could bring new allergens into foods that sensitive individuals would not know to avoid.
2. Antibiotic resistance: Genetic engineering often uses genes for antibiotic resistance. Such genes will give rise to antibiotic resistant pathogens.
3. Production of new toxin: In some cases, plants contain inactive pathways leading to toxic substances. Addition of new genetic material through genetic engineering could reactivate these inactive pathways or otherwise increase the levels of toxic substances within the plants.
4. Concentration of toxic metals: Some of the new genes being added to crops can remove heavy metals like mercury from the soil and concentrate them in the plant tissue.
5. Enhancement of the environment for toxic fungi: Genetic engineering is used to remove undesirable secondary metabolites such as alkaloids from plant products may cause the growth of toxic fungi on the plant product.
6. Unknown harms to health: As with any new technology, the full set of risks associated with genetic engineering have almost certainly not been identified.
7. Gene transfer to wild varieties: Novel genes placed in crops will not necessarily stay in agricultural fields. If relatives of the altered crops are growing near the field, the new genes can easily move through pollen into those plants.
8. Change in herbicide use patterns: Crops genetically engineered to be resistant to chemical herbicides are tightly linked to the use of particular chemical pesticides. Adoption of these crops could therefore lead to change in the mix of chemical herbicides used across the country.

Ethnobotany:

It is a branch of botany that deals with the uses of different plants and their products by different social groups in various ways. It is also defined as a branch of botany dealing with the botanical knowledge of various social groups and its uses of locally available plants in various forms. It is an interdisciplinary science, which includes aspects of both science and humanities.

It plays an important role to collect and protect the indigenous knowledge about the use of bio-resources. Humans have utilized many plants for the treatment of various diseases since human civilization. The knowledge in the uses of plants in medicine has been transmitted from one generation to successive generations.

Plants have a great role in human welfare. The plants provide food, fuel, medicine, construction of crafts etc. The chemical and genetic constituents are increasingly explored for human benefit. The plants are essential elements of ecology also.

Ethnobotany can be applied for many practical purposes such as agriculture, forestry, conservation, development of health food and herbal medicine industries. It is applied to conservation and sustainable development.

Importance of Ethnobotany:

It is very important for humans since prehistoric times. Some of them are as follows

1. It helps to understand the plant-human relationship and the practical knowledge of tribal people in medicine, agriculture, health and industry.
2. It provides the knowledge about the utility of many plant species which are unknown to modern society.
3. It provides the information regarding the traditional uses of plant wealth.
4. It traces the development of modern medicine.
5. It helps to know about the use of medicinal plants in the treatment against diseases.
6. It helps to explore new species for modern application in sciences.
7. It can contribute to the conservation of plants.
8. It can contribute to the preservation, recovery and diffusion of local botanical knowledge.
9. It can contribute to the discovery and development of new drugs.