

Economic Botany

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Common Name	Botanical Name	Family	Important Plant Part	Food Value	Uses
(I). Food yielding Plants					
(i) Cereals					
1. Wheat	<i>Triticum aestivum</i>	Poaceae (Gramineae)	Caryopsis, a one seeded fruit	Starch 60-70 Protein 10-17%	Flour for bread and chapatis, Suji, Maida.
2. Rice	<i>Oryza sativa</i>	"	"	Starch 90% Protein 8-10%	Rice is staple food for 70% of Population of world, Straw paper, mats.
3. Maize	<i>Zea mays</i>	"	"		Food for man and also fodder Zeatin a cytokinin is obtained From grains in milk stage.
(ii) Millets					
1. Bajra (Pearl millet)	<i>Pennisetum typhoides</i>	"	Small sized grain	"	Food for poor.
2. Jawar (great millet)	<i>Sorghum vulgare</i>	"	"	"	Food for poor and also for cattle.
3. Ragi (finger millet)	<i>Eleusine coracana</i>	"	"	"	Flour used for preparing cakes and pudding.
(iii) Legumes					
1. Matar (Garden pea)	<i>Pisum sativum</i>	Leguminosae	Ovule of seed	Protein 7.2% Carbohydrate 5.8% also vitamins.	Eaten green or canned or as vegetable.
2. Chana (bengal gram = chick pea)	<i>Cicer arietinum</i>	"	Seed		Used as besan, bread and also cattle feed.
3. Arhar (Red gram = Pigeon pea)	<i>Cajanus cajan</i>	"	Seed		Dal and as cattle feed.
4. Mung (Green gram)	<i>Phaseolus aureus</i>	"	Seed		"
5. Urd (Black gram)	<i>Phaseolus mungo</i>	"	Seed		"
6. Soybean	<i>Glycine max</i>	"	Seed	32-42% Protein	Eaten roasted or as milk.
7. Mungphali (Groundnut = Peanut)	<i>Arachis hypogaea</i>	"	Seed in (Lomentum, underground)	Oil 44-55% Kernel	Rich in proteins, Eaten roasted or as vegetable ghee.

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8. Lobia (Cow pea)	<i>Vigna sinensis</i>	"	Young pods and Seeds		Used as vegetable
9. Masur (Lentil)	<i>Lens culinaris</i>	"	Seeds		Used as dal.
(iv) Nuts			Seeds		
1. Almonds (Badam)	<i>Prunus amygdalus</i>	Rosaceae	Seeds	Stimulant and nervine tonic	Used in the preparation of various dishes.
2. Green Almond (Pista)	<i>Pistacia vera</i>	Anacardiaceae	Seeds	Highly prized	As flavouring material in ice creams, candy and sweets.
3. Cashew nut (Kaju)	<i>Anacardium occidentale</i>	"	Kernels	Protein, vitamins, iron, etc.	Sugared or salted kernels are consumed as table nuts, also used in confectionary.
4. English walnut (Akhrot)	<i>Juglans regia</i>	Jaglandaceae	Kernels	Protein, fats	Eaten raw, preparation of candy and ice creams.
(II) Sugar yielding plants					
1. Sugarcane	<i>Saccharum officinarum</i>	Poaceae (Gramineae)	Sucrose		Sugae, molasses, card board, paper.
2. Chukander (Beet sugar)	<i>Beta vulgaris</i>	Chenopodiaceae	Root	"	Paper, sugar, salad.
(III) Fibre yielding plants					
1. Kapas (Cotton)	<i>Gossypium sps.</i>	Malvaceae	Fruit capsule contain seed with epidermal fibres	Surface fibre	
2. Alsai (Flax)	<i>Linum usitatissimum</i>	Linaceae	Pericycle fibre	Soft or bast fibres	Bags, ropes, carpets, paper.
3. Jute	<i>Corchorus capsularis</i> <i>C. olitorius</i>	Tiliaceae		"	Bags, ropes.
4. (Sunn) Sunn hemp	<i>Crotalaria juncea</i>	Leguminosae	Fibres from regionally outside cambium		Canvass, ropes, net.
5. (Nariyal) Coir	<i>Cocos nucifera</i>	Plamae	Fibrous mesocarp	Hard fibre	Coir rope, mats, carpets.
6. (Bhang) Hemp	<i>Cannabis sativa</i>	Chenopodiaceae	Fibres from bark		Brush ropes, sail-cloth, sacs, bags, cordage.
7. Munj	<i>Saccharum munja</i>	Gramineae	Lower portion of stem, upper portion of stem and leaves		Used for making chairs, tables, baskets, screen, for cordage.

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(IV) Medicinal plants					
1. Sargandha	<i>Rauwolfia serpentina</i>	Apocynaceae	Root	Reserpine alkaloid	For blood, pressure, snake bite, mental disorders.
2. (Afeem) Opium	<i>Papaver somniferum</i>	Papaveraceae	Latex from unripe fruit (capsule)	Morphine, codeine	Narcotic, sedative, in relieving pain.
3. Quinine	<i>Cinchona officinalis</i>	Rubiaceae	Bark		For the treatment of malaria.
4. Belladonna	<i>Atropa belladonna</i>	Solanaceae	Dried leaves and roots	Leaves have atropine and hyoscyamus alkaloid	Narcotic, diuretic, antispasmodic, leaves stimulant of CNS relieving pain.
5. Datura	<i>Datura stramonium</i>	Solanaceae	Fruit juice		For removing dandruff, for bronchitis ailments.
6. Amla	<i>Emblica officinalis</i>	Euphorbiaceae	Fruit		Diuretic, laxative for haemorrhage, diarrhoea dysentery.
7. Kuchla	<i>Strychnos nux-vomica</i>	Loganiaceae	Seed	Alkaloid strichnum	In paralysis and mental disorders.
8. Isapgol	<i>Plantago ovata</i>	Plantaginaceae	Seed husk		For constipation and peptic ulcers.
9. Liquorice (Mulhati)	<i>Glycyrrhiza glabra</i>	Papilionaceae	Root		For cough and bronchitis.
10. Santonin	<i>Artemisia cina</i>	Compositae	Flowers	Drug	Anthelmintic and anti malarial, contains a variety of steroidal.
11. Yam	<i>Dioscorea species</i>		Tubers	Diosgenin drug	Drugs, some of which are used to make birth control pills.
12. Digitalis	<i>Digitalis purpurea</i>	Scrophulariaceae	Leaves	Digitoxin	Used as cardiac stimulant and toxic.
13. Sada bahar	<i>Catharanthus roseus</i>	Apocynaceae	Leaves	Vincristin, vinblastin drugs	Treatment of leukemia and other cancers.
(V) Timber yielding plants					
1. Sisham	<i>Dalbergia sisso</i>	Papilionaceae	Wood		For carved door pans, wooden status
2. Rosewood	<i>D. latifolia</i>	"	"		For furniture, houses.
3. (sagaum) Teak	<i>Tectona grandis</i>	Verbenaceae	"		Furniture.
4. Sal	<i>Shorea robusta</i>	Dipterocarpaceae	"		Door frame, beams, railway sleepers.
5. Mulberry	<i>Morus alba</i>	Moraceae	"		Sports good, mainly hockey stick, tennis rackets, cricket stumps.
6. Walnut (Akhrot)	<i>Juglans regia</i>	Juglandaceae	"		Musical instruments, Rifle butts.
7. White willow	<i>Salix alba</i>	Salicaceae	"		Cricket bats.

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(VI) Oils					
(i) Edible oil					Important plant parts and uses
1. Mungphali (Groundnut = Peanut)	<i>Arachis hypogea</i>	Leguminosae			Seed yields edible oil, roasted seeds eaten oil cake used as cattle feed and manure.
2. (i) Rape (ii) Mustard	<i>Brassica napus</i> <i>B.campestris</i>	Brassicaceae (Cruciferae)			Seed oil used for cooking, oil cake a good manure and cattle feed.
3. Til (Sesame)	<i>Sesamum indicum</i>	Pedaliaceae			Seeds yield cooking oil, oil also used for hairs as medicine.
4. Coconut	<i>Cocos nucifera</i>	Palmae			Seeds yield cooking oil, also used as hair oil, for soaps:
5. Cotton seed	<i>Gossypium sp.</i>	Malvaceae			Oil is used as ghee and cake as fodder of animals.
(ii) Non- edible oil					
1. Castor	<i>Ricinus communis</i>	Euphorbiaceae			Numerous industrial uses and also as medicine.
(VII) Fruits					
1. Mango	<i>Mangifera indica</i>	Anacardiaceae			Raw fruits used as pickles, ripe fruits eaten, wood used as timber.
2. Banana	<i>Musa sapientum</i>	Musaceae			Ripe fruit eaten as fruit and raw fruit as vegetable, leaves used as disposal plants.
3. Apple	<i>Pyrus malus</i>	Rosaceae			Ripe fruit eaten fresh, pulp used for making jams.
4. Grapes	<i>Vitis vinifera</i>	Vitaceae			Taken as fruit.
5. Citrus	<i>Citrus spp.</i>	Rutaceae			Eaten fresh or as pickle.
6. Guava	<i>Psidium guajava</i> (<i>Psidium guajava</i>)	Myrtaceae			Fruit contains considerable amounts of acid, sugar and pectin, Vitamins A, B, C, Fruit used for jellies.
(VIII) Vegetables					
1. Brinjal (Egg plant)	<i>Solanum melongena</i>	Solanaceae			Cooked fruit or fried fruit eaten.
2. Tomato	<i>Lycopersicon esculentum</i>	Solanaceae			Fruit raw or cooked.
3. Okra (Bhindi)	<i>Abelmoschus esculentus</i> = <i>Hibiscus esculentus</i>	Malvaceae			Boiled fruits edible.
4. Onion	<i>Allium cepa</i>	Liliaceae			Fleshy leaves eaten raw, bioled or in pickled form.

Common Name	Botanical Name	Family	Important plant parts and uses	
(X) Spices and condiments				
1. Red pepper (Chillies)	<i>Capsicum sp.</i>	Solanaceae	Dried pepper is used as powder with most of the Indian foods, fresh also eaten.	
2. Black pepper (kali mirch)(Black pearl)	<i>Piper nigrum</i>	Piperaceae	Dried mature seeds in cooking.	
3. Turmeric (Haldi)	<i>Curcuma domestica</i>	Zingiberaceae	Dried rhizome is very aromatic and used to colour pickles, food stuffs and also to prepare kumkum.	
4. Cumin (Zira)	<i>Cuminum cyminum</i>	Umbelliferae	Aromatic fruits are used in soup, curries, cakes, pickles oil is used for flavouring beverages and other food stuffs.	
5. Coriander (Dhania)	<i>Coriandrum sativum</i>	"	Fruits and leaves are aromatic, used in making soup, pickles, etc.	
6. Clover (Laung)	<i>Syzygium aromaticum</i>	Myrtaceae	Dried unopened flower buds are very aromatic, fine flavoured and imparts warming qualities.	
7. Saffron (Kesar)	<i>Crocus sativus</i>	Iridaceae	The dried stigma and tops of the styles make the saffron of commerce. It possesses pleasant aroma, used as spice and dye stuff.	
8. Cardamom (Chhoti Ilaichi)	<i>Elettaria Cardamomum</i>	Zingiberaceae	Fruits and seeds are used for flavouring sweet dishes, beverages, etc.	
9. Bengal Cardamom (Bari Ilaichi)	<i>Amomum aromaticum</i>	"	Fruits and seeds are chief ingredient of 'garam masala'	
10. Asafetida (Hing)	<i>Ferula assafoetida</i>	Umbelliferae	Resin obtained from the roots is used for flavouring food products.	
(XI) Beverages				
(Non-alcoholic)				
1. Tea	<i>Camellia sinensis</i>	Theaceae	Young leaves and shoot tips are processed to obtain tea.	
2. Coffee (Cofea)	<i>Coffea arabica</i>	Rubiaceae	Roasted seeds are powdered, native of ethiopia.	
3. Cocoa	<i>Theobroma cacao</i>	Sterculiaceae	Beans are roasted in iron drums, seeds are ground seeds possess and alkaloid-theobromine.	
(XII) Essential Oil				
Secnted oil				
1. Camphor oil (kapur)	<i>Cinnamomum camphora</i>	Lauraceae	Wood and laeves	Oil
2. Citrus oil (Lime oil)	<i>Citrus aurantifolia</i>	Rubiaceae	Peels	Oil
3. jasmine (Juhi)	<i>Jasminum auriculatum</i>	Oleaceae	Flowers	Oil
4. Khus	<i>Vetiveria zizanioides</i>	Graminae	Root	Oil
5. Lavender	<i>Lavendula officinalis</i>	Labiatae	Fresh flowering tops	Oil
6. Sandal wood (Chandan)	<i>Santalum album</i>	Santalaceae	Roots and wood	Oil