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[GROUP- B]

BOTANICAL NAMES, FAMILIES AND ECONOMIC IMPORTANCES OF FOLLOWING PLANTS:-

WHEAT, RICE, GRAM, ARHAR, MUSTARD, GROUNDNUT, SUGARCANE, POTATO, TOMATO, BRINJAL, NEEM, CINCHONA, COTTON.

Group - B

Botanical names, families and economic importances of following plants- Wheat, Rice, Gram, Arhar, Mustard, Groundnut, Sygarcane, Potato, Tomato, Bringal, Neem, cinchona, Cotton.

Wheat

(i) Botanical Name → Triticum vulgare
(ii) Family → Poaceae
(iii) Economic importances → Wheat flour is extensively used for making breads, cakes, biscuits, pastries etc. It is also employed in preparation of beer and other alcoholic beverages and industrial alcohol. It is wed for sizing the textile fibres.

Wheat straw is wed for seating chairs, stuffing mattresses and in the manufacture of straw carpets, straw hats and baskets etc. Wheat straw is also wed as packing material and fodder.

Rice

(i) Botanical Name → Oryza Sativa
(ii) Family → Poaceae
(iii) Economic importances → The densely populated countries wed this cereal and it seems that almost half of the world population feeds upon this

cereal. Rice constitute the main staple food of large section of the world. Numerous preparations are known in different parts of the world.

Bran oil is used as salad oil, as anticorrosive lubricant and as rust resistent oil.

Gram

(i) Botanical Name → Cicer arietinum

(ii) Family → Fabaceae

(iii) Economic importances → Gram is eaten raw, boiled and cooked. It is also eaten roasted, salted, sweetened etc. It is consumed in the form of green foliage and grain also. Gram flour or besan is in common use for various preparation and as a substitute for wheat flour by diabetic patients.

The chaff (fruit wall of pod) is used as cattle feed. The inferior quality of gram is fed to horses.

Malic acid and oxalic acid collected from gram leaves are said to be useful for intestinal disorders. Germinated seed is recommended against scurvy. It is also used as an adulterant of coffee.

Arhar or Pigeon Pea

(i) Botanical Name → Cajanus cajan

(ii) Family → Faboreae

(iii) Economic importances → It is extensively used as 'dal' and its green pod as vegetable.

The green leaves and tops of the plant are fed to animals or used as green manures. Husk or chaff is an important cattle feed. It rivals 'alfalfa' as a forage plant. Dry stalks of the plants are used in basket making or as fuel. It is also known as soil erosion checking plant.

Mustard

(i) Botanical Name → Brassica campestris

(ii) Family → Brassicareae

(iii) Economic importances → The seeds are commonly used as pickles and as a condiments. The seeds yield an oil which is used for cooking.

The glycoside sinigrin yields volatile oil containing sulphur producing pungent aromatic odour and flavour. It is used as a counter-irritant in medicine. It has stimulating effect on salivary glands and has emetic qualities. It is grown commercially in USA.

Ground Nut

(i) Botanical Name → Arachis hypogea

(ii) Family → Fabaceae

(iii) Economic importances → The uses of groundnut include: extraction of oil from seed. Uses of oilcake as a good cattle feed, fertilizer and manufacture of synthetic fibre - edril. Kernels are eaten raw, roasted, salted and sweetened. Peanut butter is extracted from the seeds and is very nutritious. The crop is used as a rotation crop to enrich the soil with nitrogen.

Sugar cane

(i) Botanical Name → Saccharum officinarum

(ii) Family → Poaceae

(iii) Economic importances → Besides sugar which is the final product of the cane sugar, three by products results viz. bagasse, molasses and filter mud.

Bagasse is the cane residue left after passing through rollers. It is frequently used as a fuel for the mills as a source of paper as well board because of its fibrous nature. It also contains wax which has commercial application.

It can also be used in preparation of plastics. (5)

The last refuge before juice is sent for crystallisation is called molasses. It is believed to have been used as a food stuffs and also used for cooking and confectionery. It is very commonly used in manufacture of rum and industrial alcohol. other very common products from molasses are acetic acid (vinegar) and glycerine.

Filter mud which is collected at various stages is used as fertilizer, as an animal feed and for the extraction of wax and fats.

Protein is also extracted from sugarcane juice

Potato

(i) Botanical Name → Solanum tuberosum
(ii) Family → Solanaceae
(iii) Economic importances → Potato contains folic acid, pantothenic acid, pyridoxine and vitamin c (ascorbic acid) It is good source of potassium, besides containing traces of sulpher, iodine, sodium and magnesium.

Potato is a universal table food

and is a common article of human consumption. It is also fed to stock. In Europe large portion of crop is used for industrial purposes viz. sizing of cotton goods, paper, production of dextrins and adhesives, alcohol and vitamin B and C.

Tomato

(i) Botanical Name - Lycopersicum esculentum
(ii) Family → Solanaceae
(iii) Economic importances → Tomatoes are largest grown vegetable crops. These are used for the preparation of soup, salad, pickles, Ketchup, sauces etc. Tomatoes are eaten raw or cooked and also are preserved. The pulp of tomato is canned as juice. The waste like seeds, cores, skins, unripe parts were discarded earlier but now a fixed oil is expressed from it which is used for food, soap or drying oil.

Brinjal

(i) Botanical Name → Solanum melongena
(ii) Family → Solanaceae
(iii) Economic importances → Brinjal is grown throughout the country and in warmer regions of both the hemispheres

It is cooked as a vegetable and (7)
is highly valued in Ayurvedic medicine
The white ginger is said to be good
for diabetic patients.

Neem

(i) Botanical Name → Azadirachta indica
(ii) Family → meliaceae
(iii) Economic importances → The drug consists of dried stem bark, leaves and root bark. The bark is a bitter tonic, astringent and antiperiodic, i.e; it is useful in fevers, it breaks the periodic sequence of fevers (like malaria), and is useful in skin diseases.

The antibiotic activity of leaves and roots of the tree and their utility in skin diseases have been confirmed experimentally.

The timber of neem tree is very durable and is useful for house building, agricultural implements and miscellaneous carpentary work. The oil cake and gum which exudate from bark and also useful products. Dry leaves are placed among clothes to keep moths away.

Cinchona

(i) Botenical Name → Cinchona calisaya

(ii) Family → Rubiaceae

(iii) Economic importances → Cinchona bark yields several active principles ob which quinine is most important, ft is well known bur its effective use in malarial levers. The drug cowes remission ob lever and with repeated or regulated doses, checks replece ob malarial levers. Quinine also desproys infections, and in certain preparations has been bound wetul in pneumonie, amoebic dysentery and bor eye lotions. Preperations ob quinine are also usefu as local applicebons ob certain rheumatic pains and as gargles.

Higher doses ob quinine preparations can cewe temporary (or even permanent) deafness, blindness, giddiness and nau. sea. Pregnant women and persons with heart ailments are not given quinine preparations.

Cotton

(i) Botanical Name → Gossypium hirsutum

(ii) Family → Malvaceae

(iii) Economic importances → The must of the cotton is chiefly used in the

manufacture of fabrics, alone or in combination. Innumerable types of woven fabrics are too uncountable to be described. The chief types, however include cloth, tyre fabrics, various forms of threads, cordages twine etc. Mercerised cotton is made by treating fibres with caustic soda which impart high lustre and silky appearance.

Unspun and raw cotton finds its use in mattresses, upholsteries, for stuffing purposes. Absorbent cotton is produced by throughly cleaning the oily covering of fabrics, thus constituting almost pure cellulose. It forms basic raw materials of plastic, rayon and explosive industry.

Stalks contain fibre and are used in paper making. A crude drug is extracted from roots. The hulls are used for stock feed, as fertilizers, for lining of oil wells.

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