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Important cereals and millets cultivated in Bihar are:

1. Wheat 2. Maize 3. Rice 4. Barley 5. Oats 6. Sorghum 7. Pearlmillet.

(1). Wheat (Hindi – Gehun):

Botanical Name: *Triticum aestivum* L.

Family: Gramineae or Poaceae

- It is a cereal crop of family Gramineae.
- It is the most common food plant.
- The fruit is a caryopsis.
- Each grain consists of an outer husk, the aleurone layer containing protein, the endosperm having starch, and the embryo.

- Wheat flour is used for making bread, biscuits, cakes, pastry and other similar articles. Wheat is also used in the manufacture of beer and other alcoholic beverages.
- Fruit contains a single endospermic seed which contains many minerals, including Mg, Mn, Cu, Fe and Zn.
- Wheat straw is used as a fodder for cattles and for seating the chairs, matting, hats, etc.
- Wheat straw pulp is used for preparing writing, printing and wrapping paper, and straw board.

(2). Maize (Hindi – Makai):

Botanical Name: *Zea mays* L.

Family: Gramineae or Poaceae.

- It is an annual cereal, attaining a height of 3 to 15 feet.
- It is the largest amongst the cereals.
- The fruit is a caryopsis consisting of hull (6%), protein or aleurone layer (8 to 14%), endosperm (70%) and embryo (11%).
- Grains are used by man as well as animals for food.
- Corn flakes, com starch, com syrup, com oil, dextrans and industrial alcohols are some of the maize products.

(3). Rice (Hindi – Chaval):

Botanical Name: *Oryza sativa* L.

Family: Gramineae or Poaceae

- Rice is the chief cereal used as staple food in most of the parts of the world.
- Its fruit is a caryopsis.
- Grains contain a large amount of starch, fat and proteins.
- It is also used in the preparation of many alcoholic beverages.
- Hats are prepared from the fibres obtained from its stem.
- Paper, mats and boards are also prepared from rice.
- Rice-bran oil is used for soaps, cosmetics and also as an anticorrosion oil.
- Rice husk is used for making activated carbon, sodium silicate and silicon, and also as fuel, packing material and animal feed.

(4). Barley (Hindi – Jaun):

Botanical Name: *Hordeum vulgare* (L.)

Family: Poaceae

- It is used as a food either in the form of flour for chapaties or in the form of sattu.
- Throughout the world it is used for malting and brewing purposes in the preparation of beer.
- It is also used for feeding livestock's and horses.
- Barley malt contains the enzyme amylase which is essential for conversion of starch into sugar.

- Barley malt is also used for the production of distilled beverages, such as whisky and spirits.
- Malted milk concentrates, candies, infant foods and several pharmaceutical preparations are also prepared from barley.

(5). Oat (Hindi – Jai):

Botanical Name: *Avena sativa* L.

Family: Poaceae

- Oats have a high percentage of fat, protein and minerals.
- It constitutes a good food for muscle building.
- It does not provide a good bread flour because its protein material does not occur in the form of gluten.
- It is widely used for cakes, biscuits and breakfast foods.

(6). Sorghum (Hindi – Joar or Jowar):

Botanical Name: *Sorghum vulgare* Pers.

Family: Poaceae

- Stem and leaves are used as fodder and grains as food.
- Its grains are also used as a raw material in malting industry.
- Industrial alcohol, acetone and starch are also prepared from its grains.
- Sorghum is also used, to some extent, in making whisky, beer and an edible oil.

8. Its seeds are a favourite poultry feed.

(7). Pearl millet (Hindi – Bajra):

Botanical Name: Pennisetum typhoides (Burm.) Stapf. & C.E. Hubb.

Family: Poaceae

- Its stem and leaves are used as fodder while its grains are edible and furnish an important food for lower classes.
- Plant are tall, reaching 6 to 15 ft. in height, and each contains 3-8 compact cylindrical spikes that bear round edible grains.
- Millet's flour is very nutritious and is used widely for bread making and cakes.
