#### Invitation to

#### The International Conference cum Buyer-Seller Meet

20-22 September 2019

#### Hotel Courtyard by Marriott,

Raipur (Chhattisgarh)

The Embassy is glad to inform you that Chhattisgarh State Agricultural Marketing Board (CGSAMB), Government of Chhattisgarh is organizing an International Conference cum Buyer-Seller Meet from 20-22 September 2019 at Hotel Courtyard by Marriott in the capital city of Chhattisgarh, Raipur.

The State of Chhattisgarh is endowed with fruits, vegetables, millets, grains, forest produce, silk and many other produce. Being the 9th largest state in India and having 44% land under forest cover, the state has immense potential in natural resources & organic food production. With a cultivable land area of 4.67 million hectares and forest land area of 6.35 million hectares and more than 40% of entire arable land under cultivation, the State of Chhattisgarh has immense opportunities to offer.

The State of Chhattisgarh through its various farmer & farming initiatives focuses on localized cultivation and processing techniques – thereby producing agricultural products of excellent quality. To provide market – linkage and to promote the exports of agro-produce of the State of Chhattisgarh, the Chhattisgarh State Agricultural Marketing Board (CGSAMB), is organizing an International Conference cum Buyer-Seller Meet from 20-22 September 2019 at Hotel Courtyard by Marriott in the capital city of Chhattisgarh, Raipur. This conference will provide a platform for B2B meetings between International and National Buyers, exporters and progressive farmers/FPOs/FPCs/producers to explore the direct marketing and export opportunities of these products. Backed by the Government's initiatives of providing the maximum gain per yield to farmers, the buyers can be assured of original high-quality produce from the FPOs / FPCs/ producers located in the state.

The Embassy will nominate 4 International Buyers from Japan who are actively engaged in import of agricultural products preferably as per the list enclosed. The international travel, accommodation and local conveyance at Raipur, Chhattisgarh will be borne by CGSAMB through its vendors for four buyers from Japan for the duration of the event. More number of buyers are also welcome at their own expense. The Embassy will facilitate the visa process for the identified importers.

If you are interested in the event, please contact the Commercial Wing at Embassy of India, Tokyo. The Embassy will examine your application to nominate for complimentary service.

Sincerely	/
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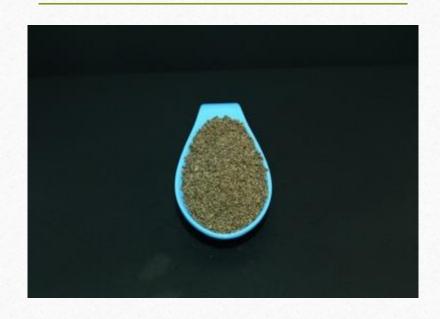
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# CEREALS

#### Kodo

Annual Production: 9311 MT Main Areas of Cultivation: Jagdalpur, Baikunthpur



 Kodo is a grain whose botanical name is Paspalum Scrobiculatum. It is grown in different parts of India and Nepal. It can grow in areas of scanty rainfall. The outer skin from the Kodo grains is peeled and the grain is eaten as rice. It is one of the staple food product used during fasting. It 8.3% protein, 14% fat and contains 65.9% carbohydrates. It is beneficial to control diabetes, for kidney and urinary bladder. It helps to cure dry cough.

### Kutki

Annual Production:- 8188 MT Main Areas of Cultivation:-Jagdalpur, Kondagoan



• The botanical name of kutki is Panicum antidotale. It is a millet which contains necessary nutrients like amino acid, isoleucine, leucine, methionine Phenylalanine, tyrosine, histidine and cystine in abundance. Every 100 grams of kutki, contains 7.7% of protein, 4.7% of fat, 7.6% of fiber 1.5% mineral, 17% calcium and 9.3% of iron. It has low glycemic index and helps to control blood sugar levels. It is a good food for obese and heart patients.

## Ragi

#### Annual Production:- 7296 MT Main Areas of Cultivation:-Jagdalpur



- The botanical name of Ragi is eleusine coracana. It is a coarse grain grown in arid areas of Africa and Asia. It is native to the Ethiopian and Ugandan highlands which came to India some four thousand year back. Once the grain (puck) is ready the storage in very safe as pests or fungus do not attack the grains. It is a natural source of iron and calcium, beside it is rich in nutrients like vitamins, fiber, amino acid, methionine, carbohydrates. As it is rich in fiber it is helpful in reducing sugar and weight. It is beneficial for patients with low hemoglobin. As it contains natural calcium it strengthens the bones, so it is beneficial for growing children. It is very beneficial for growing children as it contains natural calcium which strengthens the bones. With the help of amino acid, it helps to keep the skin fresh and get rid of anxiety and stress. Every 100g of ragi contain 7.3 g of protein, 1.3 g of fat, 72 g carbohydrates, 27 g minerals, 3.44 g calcium, 3.6 g of fiber, and energy 328 kg Kcal.
- In India Ragi is mostly consumed in Karnataka and Andhra Pradesh. It is grounded to prepare ragi flour which can be used to prepare Bread, Dosa and idli. Ragi flour is mixed with water to make ragi sauce, when it thickens it is given a round shape (Ragi Mudde) and is eaten with ghee and sambhar. In Vietnam it is given to pregnant women as a medicine during delivery. Ragi is also used to make liquor.

#### **Red Rice**

Annual Production:- 2341 MT Main Areas of Cultivation:-Jagdalpur, Gidam



• Its Botanical name is Oryza sativa. It is a variety of rice and is red colour is due to the presence of anthocyanin which is an anti-oxidant. It has highly nutritious and helps in controlling weight and high blood pressure.

#### **Black Rice**

Annual Production:- 92 MT Main Areas of Cultivation:-Bijapur



Black Rice is a variety of rice of the species Oryza Sativa. It is also known as purple rice. Varieties include Indonesian black rice, Philippine balatina rice and Thai jasmine black rice. In Bangladesh it is known as kao dhaner Chaal (black paddy rice) and is used to make polao or rice-based desserts. Black rice is a source of iron, vitamin E, and anti oxidants. The bran hill (outermost layer) of black rice contains one of the highest levels of anthocyanins found in food the grain has a similar amount of fiber to brown rice and, like brown rice, has a mild, nutty taste. Black rice has a deep black color and which turns deep purple when cooked. Its dark purple color is primarily due to its anthocyanin content. It is suitable for making porridge desserts, traditional Chinese black rice cake, bread and noodles.

### Organic Vishnubhog Rice

Annual Production:- 5000 MT Main Areas of Cultivation:-Katghora, Kota, Pendra



• Organic Vishnubhog is a variety of rice of oryza sativa It is a non basmati premium quality scented aromatic short to medium grain quality of rice. It contains higher concentration of the essential elements selenium and zinc which provide taste and instant energy to the body. It has no sugar and is good for people with High blood pressure. It has no cholesterol so is good for heart. It is an excellent food to include in a balanced diet. It also helps to prevent constipation. It is the best food for Diabetics and obese.

### Maize

Annual Production:- 27679 MT
Main Areas of Cultivation:Balrampur, Kondagoan,
Jagdalpur, kanker, Surajpur



- (Called corn in some country) Its botanical name is zea mays. It is a major food crop which comes in the range of coarse grains. It is eaten in the form of corn-cob. Though it comes under coarse crop its yield has taken the form of a significant crop in India since the last decade as it is the most prominent in the growth rate of all coarse and major food grains.
- This crop was grown in India by the end of 1600 AD but today India's name is included as one of the major maize producers of the world.

### Fox Nut

Annual Production:- 15 MT Main Areas of Cultivation:-Dhamtari



Euryale ferox in commonly known as foxnut. It is grown in stagnant perennial water bodies like ponds, lake, land depressions swamps and ditches. It is an aqueous product rich in nutritious value. The roasted foxnut seeds are used in making sweets, kheer and snacks. It consists of 9.7% protein, 76% carbohydrates, 12.8% moisture, 0.1% fat, 0.5% mineral salt, 0.9 phosphorus and for every 100g. it has 1.4mg of iron. It has many medicinal values. On 28 Feb. 2000 The National research center for Makhana was established at Basudeopur near Darbhanga. This research center operates under Indian Council of Agriculture Research there is a tremendous potential for the development and research of this nutritious food product emerging in the swampy area.

## Organic Jeeraphool Rice

Annual Production:- 2000 MT Main Areas of Cultivation:-Bilaspur, Sarguja, Dantewada, kanker and Jagdalpur



The Botanical name of Organic Jeeraphool rice is Oryza sativa. Organic Jeeraphool Rice is a premium aromatic variety of rice, which is small and medium size in length. The essential selenium and zinc are found in abundance, it provides energy to the body; it does not contain sugar, cholesterol and is very good for people with high blood pressure. It is helpful in preventing constipation and is an excellent diet for diabeties and obesity.

#### Sawa Millet

Annual Production:- 50 MT Main Areas of Cultivation:-Jagdalpur, Dantewada and Kanker



• The botanical name of Sawa Millet is Echinochloa. Millets are important crops in the semi-arid tropics of Asia and Africa. Millets may have been consumed by human for about 7000 year. Sawa Millet has lots of health benefits. It is one of the most digestible and non allergenic grain available around the world. It has very low calories and low glysemic index.

Green Rice

Annual Production:- 3 MT Main Areas of Cultivation:-Arang (Raipur)



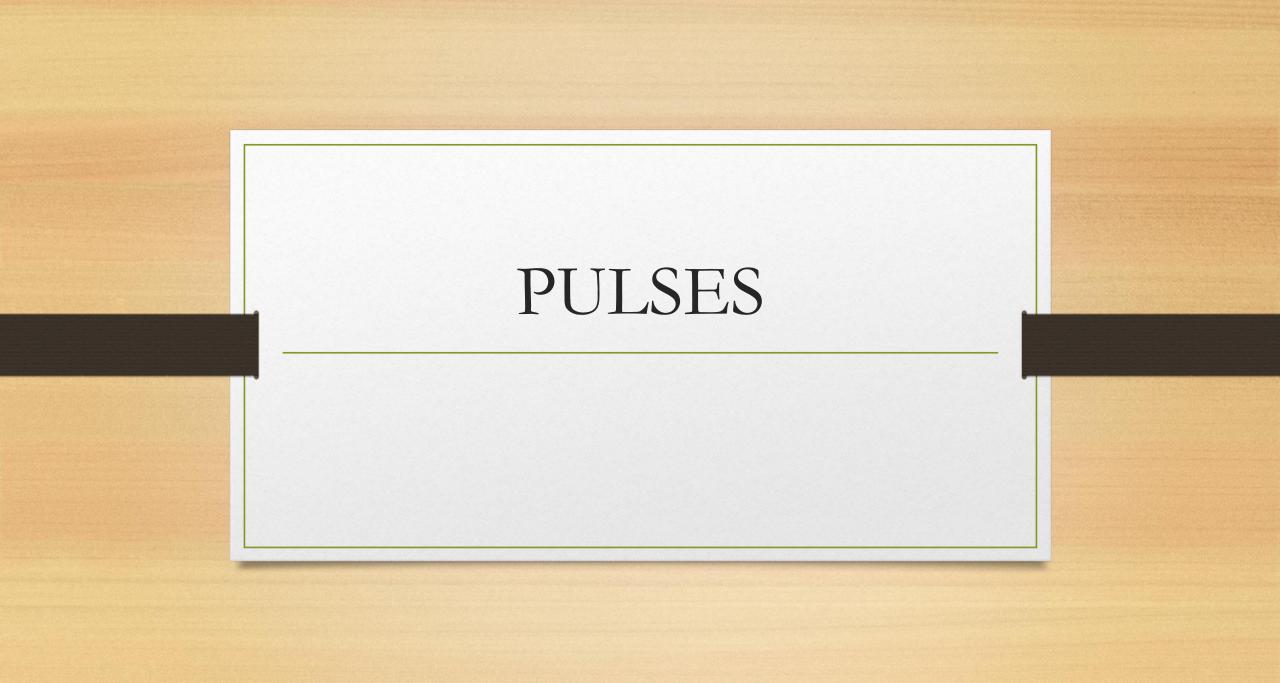
• Green Rice is a variety of rice of the species Oryza Sativa. Green Rice is a premium aromatic variety of rice. which is small and medium size in length. Antioxidant and easy to digest.

#### Poha

Annual Production:- 93710 MT Main Areas of Cultivation:-Rajnandgoan, Bhatapara and Bilaspur



• Poha is an Indian dish prepared in the Indian states of Maharashtra, Odisha, Madhyapradesh, Telegana, Karnataka and Gujrat. Poha tends to be spicy. Poha Originated from Maharashtra (Called Kande pohey) Poha is made of processed flattened rice, roasted with chilies, onions, mustard and cumin seeds and curry leaves (called Kadi-patta). It is a high carbohydrate, low fat, quick meal that can be made in minutes.



#### Gram

Annual Production:- 31706 MT Main Areas of Cultivation:-Bemetara, Rajnandgoan, Dhamtari, Kabirdham



• The botanical name of gram or chick pea is Cicer arietinum. It is an important pulses crop grown in rabi season. Of the total production of gram in the world India produces 70% of gram. It contains 21% of protein, 61.5% of carbohydrates, and 4.5% of fat. It has calcium, iron and niacin in abundance. Gram are grounded to make gram flour which is a staple ingredient in the cuisine of the Indian subcontinent. In the raw stage, it is used in the form of vegetable. It is also used as medicine to clean blood, and to cure other disease. Gram crop collects nitrogen from the atmosphere and enhances the fertility of the soil.

#### Red Lentil

Annual Production:- 8130 MT Main Areas of Cultivation:-Kavardha, Mungeli, Rajnandgoan, Kabirdham



 The Botanical name of Red Lentil is Lens Culinaris. Red Lentil was first grown in south west Asia about 7000 BC in the area that is now southern Turkey and Northan Syria. It is best adopted to the cooler temperate Zones of the world or the winter session in Mediterranean climates. Red lentils are one of the most common types of lentil, and the best known among the red lentils is the Red Chief. It's a lovely salmon pink in its dried form, but it turns golden when cooked. These lentils cook faster than others. They're best in purées or soups



### Soyabean

Annual Production: 2868 MT Main Areas of Cultivation: Rajnandgoan, Kabirdham



- Glycine Max is the botanical name for Soya bean. It is a pulse crop, but is considered as an oilseed. As it has an abundant quantity of plant based protein it is also called meat for the vegetarians. It is a very useful, versatile and important food source. Its main components are protein, carbohydrate and fat. It consists of 38-40% Protein, 22% oil, 21% carbohydrates, 12% moisture/water and 5% ash.
- Soya bean oil is rich in linoleic and linolenic acid and these acids are essential fatly acids for the body. Beside this isoflavone, lecithin, phytosterol are other healthy and useful compounds found in soya bean. It has a wealth of health benefits. It helps to lower the total cholesterol level, improves the metabolism which helps to reduce weight, protects from high blood pressure, coronary heart disease, defend against colorectal cancer, boosts digestion, improves bone health, checks osteoporosis and promotes osteotropic activity. It stimulates the production of healthy bacteria in the intestine, this serves as a great source of probiotics. It ensures the prevention of neural tube defects in infants. It maximizes metabolic activities and increases energy level. It has antioxidant, anticoagulant, anti-allergy qualities.

### Nigerseed

Annual Production:- 26910 MT Main Areas of Cultivation:-Jashpur, Balrampur, Jagdalpur



- It is an oil seed whose Botanical name is Guizotia Abyssinica they are also known as Black seeds or Ram Til. Its cultivation originated in the Ethiopian Highlands but today it is grown in Africa, Mexico, Germany, Brazil, Nepal, India and South Asia. The crop can be grown under odd conditions. It can grow in unheeded and low fertile soil. Its oil and seeds are free from toxic elements.
- Niger seed oil is commonly known as Ramtil oil. It is manly used in cooking. It is a rich source of protein and has beneficial linoleic and which make a substitute cooking oil. It also has a fatly acid composition of Acerbic acid, Riboflavin, Niacin, Satiric, and oleic acid, fiber and carbohydrate. Its composition is similar to that of sunflower oil but it has non-acidic stability and is also low in unsaturated fat which makes it a healthy oil compared to many of the kitchen oils. It is an effective, natural care for rheumatism. It has a wonderful remedy to care different skin problems. Niger seed oil contains essential nutrients and minerals. It has antioxidant, antiphrastic and anti-rheumatic properties. It is also used for massage.

#### Sesame

Annual Production:- 12140 MT Main Areas of Cultivation:-Bemetara, Kabirdha, Rajnandgoan, Mungeli



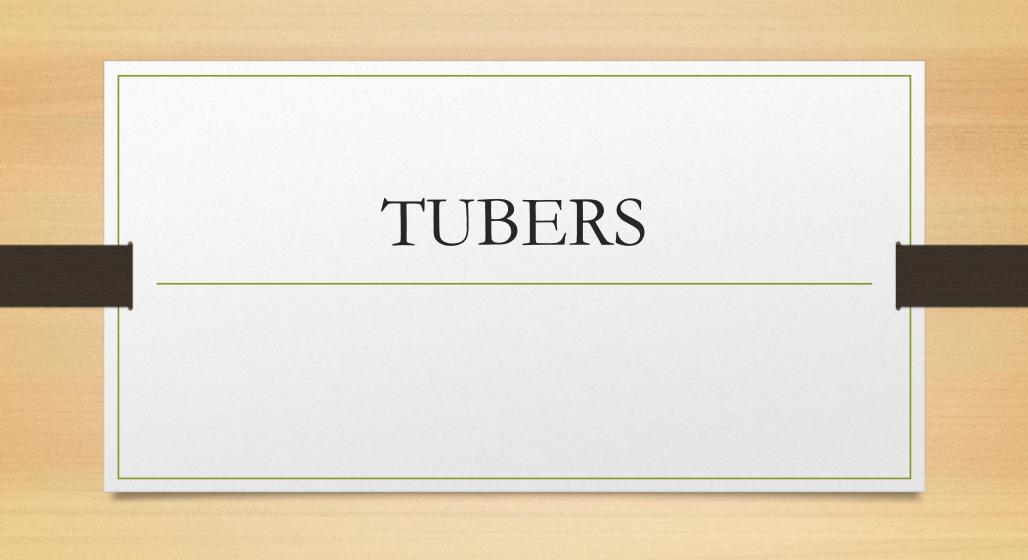
• The Botanical name of sesame is Sesamum Indicum. Sesame seeds are tiny, oil-rich seeds that grow in pods on the Sesamum indicum plant. Sesame seeds have many potential health benefits and have been used in folk medicine for thousands of years. They protect against heart disease, diabetes, and arthritis. It is good source of Fiber, Good Source of B Vitamins, Rich in Antioxidants. Its use in very beneficial for high blood Pressure, Cholesterol and Triglycerides.

#### Linseed

Annual Production:- 11120 MT
Main Areas of Cultivation:Raipur, Balodabazar,
Mahasamund



 The Botanical name of Linseed is Linum Usitassimuml. It is an annual herbaceous plant and grows to height of 30 to 120 cm. Fiber types are tall growing and less brancheted than the seed types. Seeds are compressed shining yellow or light brown. Lineseed is the richest source of oestrogenic lignans enterodiol and enterolactone, which are formed by gut bacterial action on the precursor phytocemical secoisolariciresinol dygolucoside (SLDG) found in the seed. Linseed is a rich sources of ALA, the essential w.c. fatty acid, its also provide protein and dietary fiber.



### Tikhur

Annual Production:- 190 MT Main Areas of Cultivation:-Bastar and Sarguja, Jashpur



- The botanical name for Tikhur is Curcuma angustifolia is a plant of turmeric, whose root is in the form of white powder and it is used to make kheer, halva etc. It is indigenous to Indian subcontinent. Due to its medicinal properties, its popularity has also increased in the western world. There is also an exotic tikhoor which is called arrowroot.
- Medicinal uses The roots of Tikhur plant are sweet and nutritious, they have the potential to use as an agreeable, non-irritating diet in chronic diseases, during convalescence from fever, in indigestion, irritation of the alimentary canal, pulmonary organs, urinary dissuasions, asthma, ulcer, jaundice, anemia, white leprosy disease, and as an anti-inflammatory drug. It is a nutritious food for children this is especially beneficial in the weakness of post intestinal and urinary system diseases. Arrowroot starch and liquid glucose is obtained from the roots of Tikhur plant. It is used in making eatables like Jalebi, Kheer, ice-cream and cuisines made during fast.

### Elephant Footyam

Annual Production:- 8690 MT
Main Areas of Cultivation:Kanker, Kabirdham



The botanical name of Elephant foot yam or or white spot gaint arum is Amorphophallus paeoniifolius. The Elephant foot yam is a tropical tuber crop grown primarily in Africa, South Asia, Southeast Asia and the tropical Pacific islands. Because of its production potential and popularity as a vegetable in various cuisines, it can be raised as a cash crop. It contains plenty of carbohydrates and proteins making it a good staple food. Its other chemical constituents are beta-sitosterol, xylose, lupeol, galactose, betulinic acid, amylase, stigmasterol and much more. It also contains high levels of zinc, phosphorous, potassium, vitamin calcium, Vitamin A and others. Some other important constituents of elephant foot yam are steroids, phenols, alkaloids, flavonoids, and amblyone. Containing about 5% of proteins, 18-24% of carbohydrates, along with about 72% of water, it is a quick energizer and is widely consumed in several parts of the world.



## Ginger

Annual Production:- 35140 MT Main Areas of Cultivation:-Raigarh, Bilaspur



The botanical name of ginger is Zingiber officinale. It is an underground adapted stem. It originated in South Asia but now it is grown in Africa and Caribbean. Ginger plant is cultivated in China, Japan, Muscat and the pacific islands. It is antiinflammatory, antioxidant antihistamine, analgesic effect. It has the qualities of cleansing and toning. In India it is used as a spice during cooking. It is found very useful in respiratory problems, digestion, prevent cancer, nausea, migraine. It can relieve many forms of Nausea and vomiting. It has anti-diabetic properties. It improves various heart disease and lowers cholesterol levels. It is useful for weight loss to increase immunity and help to fight infection, high blood pressure, Arthritis. It has major anti-aging benefits. It can reduce the appearance of hypopigmented scars, it prevents free radical damage and protects against aging. It evens skin tone and improves elasticity. It is helpful for stimulating hair growth and is an excellent remedy for dandruff.

#### Green Chilli

Annual Production:- 199281 MT Main Areas of Cultivation:-Kabirdham, Bilaspur, Raigarh, Sarguja



The botanical name of Green Chilli is Capsicum annum. It helps in improving vision among people of all ages. Good for heart disorders: Green chillies are rich in minerals, including potassium, manganese, iron and magnesium. These are important components that help control heart rate and blood pressure. These are rich in vitamin B6, vitamin A, iron, copper, potassium and a small amount of protein and carbohydrates. Green chilli is a rich source of vitamin C and eating it helps in keeping your skin healthy and glowing. Green chilli helps in burning the excess fats of the body.

### Turmeric

Annual Production:- 58763 MT Main Areas of Cultivation:-Balrampur, Raigarh, Surajpur, Korba, Koria



- Turmeric is an Indian plant. Curcuma Longa is its botanical name. It is from the ginger family and is found in the lump of the root. In Ayurveda turmeric is said to be a significant medicine has an important place in the Indian kitchen and religiously is considered to be very auspicious. During Indian marriage Haldi ritual has great significance.
- Turmeric has 5.8% Flammable oil, 6.3% protein, 5.1% mineral, 68.4% carbohydrates and in addition to this it has Phenolic compound called Curcumin, Vitamin C, A, fiber and potassium. It has potent antiinflammatory and antioxidant qualities. It is used in home remedies for digestive problems, controls diabetes, improves immunity, is anti cancer, controls weight, heart diseases, brain disorders like Alzheimer and various degenerative conditions. It has natural cure to give relief from pain, and lessen the problems related to mestruation. It is a natural antiseptic which has the quality to cure cough, removes pimples, psoriasis, sun-burn and fungal infection. It can help to give relief from Arthritis, problems related to blood-circulation, cancer, bacterial infection, high blood pressure and problems related to LDL cholesterol and it is beneficial in repairing breakage of body cells. Its very useful to cure Urinary diseases, diseases related to uterus, gonorrhea, skindiseases and Vat-pit-cough. Its coating is applied in liver enlargement. It has also been found beneficial in diseases of digestive system, anorexia, loss of appetite, ascites and to cure worms. Apart from this, turmeric is also considered as a beauty enhancer. Since ancient times it has been used to enhance beauty.

# VEGETABLES

#### Cauliflower

Annual Production:- 372047 MT Main Areas of Cultivation:-Kondagoan, Durg, Raipur, Bemetara, Surajpur



Is a vegetable in the species of Brassica oleracea var, botrytis. It is one of the popular vegetables. It Originated in the Mediterranean island of cyprus or italy. It came to India During the Mughal Period and today it is cultivatid at all Places. Cauliflower is used to make various delicious dishes. It Consist of Protein, Calcium, Phosphorus, Carbohydrates and Iron, Vitamin A, B, and C, Iodine, Potassium and Manganese in little quantity. Cauliflower helps in cleaning of blood, Prevents Skin disease. It keeps your bones healthy, reduces joint pain, helps in arthritis problem, effective in stomach pain or other stomach related problems. It is helpful in activating the existing enzymes in the liver, strengthening the nervous system and in weight loss.

### Cabbage

Annual Production:- 320567 MT
Main Areas of Cultivation:Durg, Kondagoan, Balod,
Bemetara, Raipur, Korba



• The Botanical name of cabbage is Brassica oleracea var, capitata. It is a leafy vegetable which is a boned joint of soft leaves. In Hindi it is called Bundhghobi or Patagobhi. The beginning of its Production is believed to be in the eastern geo central sea and Asia minor. Cabbage is cooked as vegetable and eaten raw in salad. It has little sweet taste. It Consist Vitamin C, Potassium and Iron in abundance. Besides this it is a good source of Indol-3, Corbinol (13 C), Amino Acid, diindolylmethane or DIM, Sulfora phanelupale, and Synigrin. Nutrients found in cabbage prevents cancer and protect against cancer. Having anti inflammatory Properties, it reduces inflammation and swelling. It relieves problems like Alzheimer. It is beneficial in the treatment of peptic ulcer.

Brinjal

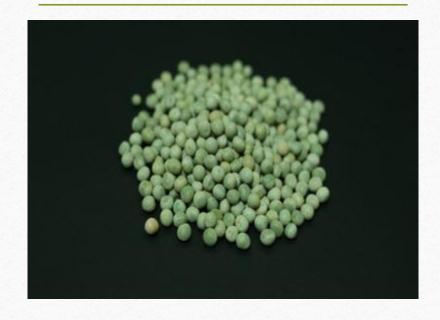
Annual Production:- 637469 MT
Main Areas of Cultivation:Durg, Kondagoan, Raipur,
kabirdham, Bemetara,
Rajnandgoan, Balod



• The Botanical name of Brinjal is Solanum melongena. Brinjal was born in India and today is the second most consumed vegetable after potato. After China (54 Percent) in the world, India is the second largest producer of eggplant (27 percent). It is indigenous to India. It has been cultivated from India since ancient times. It is grown in all india except on the high altitude. The number of calories in brinjal is very low and fiber content is in abundance which help in weight moreover it does not contain cholesterol. It Contains excessive amount of chlorogenic acid, which acts as a strong antioxidant agent. Being helpful in reducing cholesterol it is also good for heart. It is beneficial in blood pressure and diabetes.

### Garden Peas

Annual Production:- 50957 MT
Main Areas of Cultivation:Rajnandgoan, Sarguja, Surajpur,
Balodabazar



• The Botanical name of peas is pisum sativum. Generally it is a winter season crop. It is added in vegetables, pulao, parathe or beaten rice, and makes the food more tasty. During winter season without peas the food appears to be incomplete. It reduces cholesterol and weight of the body. Regular use of peas in the diet prevents the danger of cancer. As peas are rich in dietary fiber it gives energy and is good for digestion and peas are also helpful in anti-aging it prevents the aging process of the skin and body. It is rich in vitamin K and Protein, which helps prevention from Arthritis and Osteoporosis. It helps to increase the memory and prevents from Alzheimer's. It gives relief if a thin paste of grinded peas is applied on a burnt skin.

### **Tomato**

Annual Production:- 980426 MT Main Areas of Cultivation:-Durg, Bilaspur, Jashpur, Bemetara, Mungeli, Kondagoan



- Solanum lycopersium is commonly known as Tomato it is the most popular used vegetable in the world. The species originated in the Andes mountains of South America. It was first domesticated and used as food in Mexico and later was spread across the world through the Spanish colony.
- Tomatoes are the richest source of calcium, Phosphorus and vitamin C, In case of acidity increasing the quantity intake of tomatoes this complaint is removed. Due to the presence of Citric acid and mollic acid it is sour in taste but this works as an antacid. Tomatoes are very useful for eyes as vitamin C is found in abundance.
- Tomatoes are very useful for the body. It helps to cure many diseases. Tomatoes remove bacteria from the body, especially from the kidneys. It is also very useful for diabetic patients. Due to the low carbohydrate contents, it is considered as a good food. It increases the digestive power. Liver functions better by frequent consumption of tomatoes and the complains regarding acidity is removed. A medium size tomato has 12 calories hence it is useful for those who are interested in weight loss. Regular intake of tomatoes reduces the inflammation of the respiratory tract. Naturopaths say that extreme contraction is removed by eating tomatoes and it gives relief from cough and Mucus. With its intake disease resistance also increases.
- In India tomato chatni (Sauce) is very popular as it is made in very less time. It is used as a supplement with snacks like puff patties (Samosa) Potato cutlet pakore and Bread, Sweet Tomato ketchup and Sauce is readily available in the market. Now it is also being produced commercially. It is mostly used to make sauce for snacks and in vegetables.

#### Cluster Beans

Annual Production:- 17304 MT Main Areas of Cultivation:-Durg, Kabirdham, Rajnandgoan



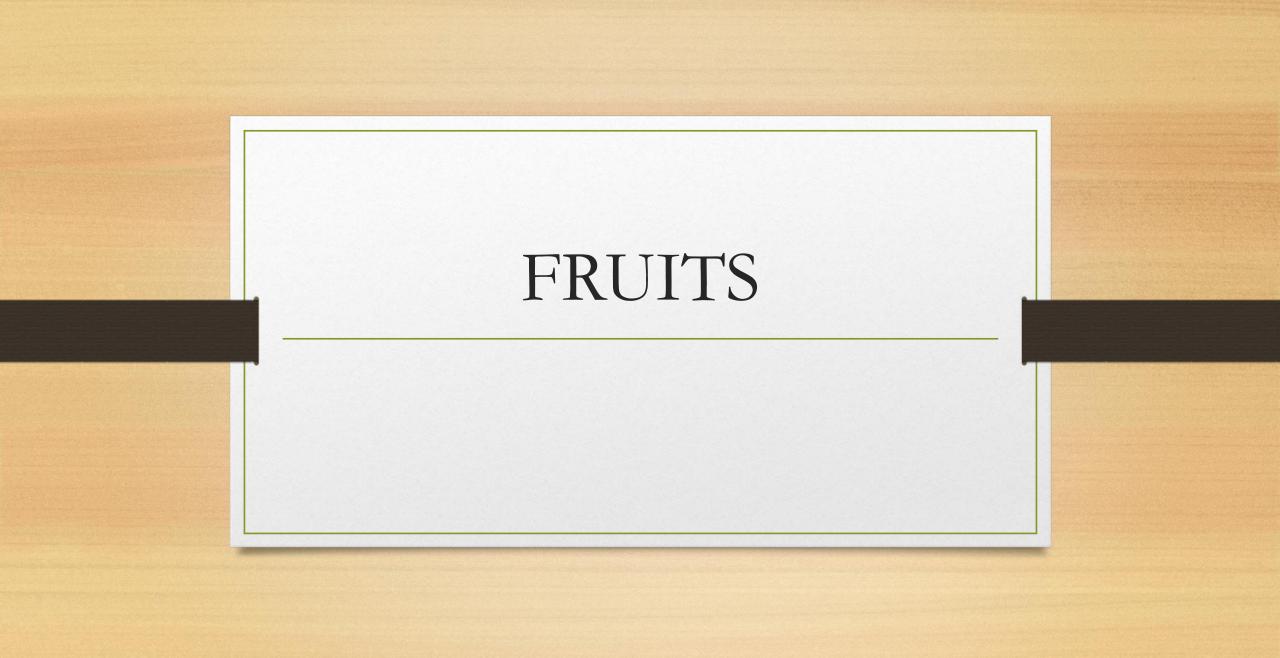
The Botanical name is cluster bean is Cyanosis Tetragonoloba. Of the total Production of Cluster beans 80% is Produced in India. It is Used as a green vegetable. Guar Falli or Cluster beans has many nutrients which are very beneficial for our health. It increases the appetite by eliminating anorexia in food. Its Consumption helps to make the muscles Strong. It Contains Plenty of Protein which is beneficial for health. It is good for Diabetic Patients as Controls Sugar level. It also removes acidity and helps us digestion. Cluster beans when used as vegetable helps to remove night blindness. It is grinded and mixed with water and its paste is applied on a sprain or injured area it provided great relief. It is also used as cattle feed. Feeding Guar pods to animals giving milk have are increased ability to provide milk. The seeds of guar pod contain galactomannan gum. Guar gum has a multitude of different applications in food products made from milk eg ice-cream, cottage-cheese etc. Beside this it is used in several food products and beverages. Paste Made from guar seeds is used in food products, medicine and industrial application.

#### Radish

Annual Production:-173134 MT
Main Areas of Cultivation:Kondagoan, Korba, Sarguja,
Mahasamund



• The Radish (Raphanus raphanistrum subsp) is an edible root vegetable. It is a Modified main root that is thin in the middle and thick to the ends. It is grown and eaten in the entire world. There are numerous varieties, varying in size, flavor, color and length of time they take to mature. Some variety of radish are grown for oil production. Raw radish or vegetable made from its leaves both facilitates digestion and as a good detoxifier help to relieve the symptoms of piles. Eating radish is beneficial for diabetic patients. Jaundice can be cured if the patient daily eats a radish empty stomach. It there is acidity due to heat then one cup of radish juice with mishri (sugar candy) can be beneficial.



## Papaya

Annual Production:- 269638 MT
Main Areas of Cultivation:Durg, Raipur, Bilaspur,
Mahasamund, Bemetara



• Papaya is the plant carica papaya. It came to India some 300 years ago and is a fruit. When raw, papaya skin is green in color and turns yellow when ripes. Both the raw and ripe papaya fruit is useful. Raw papaya is used to make vegetable. It contains fiber, vitamin A, Vitamin C, antioxidant in abundance. It also contains digestive enzymes. It helps in weight loss, boosts immunity, lowers cholesterol, great for eyes as it protects the vision, improves digestion and help to ease menstrual pain. Papain enzyme is extracted from the raw fruit of the papaya plant. It is used to make digestive drugs. Papaya is found in regions with all temperate climate.

## **Custard Apple**

Annual Production:- 37794 MT Main Areas of Cultivation:-Kabirdham, Kanker, Korba, Mahasamund, Koria



- Is the fruit of Annona Reticulate. It is a kind of fruit. Custard apple is full of qualities that benefit all parts of the body. It has the ability to increase weight. It is a good source of energy. It contains high amount of Vitamin C, a natural antioxidant which has the ability to increase the body's fighting power i.e. the immune system. Custard apple enhances the ability of eyes to see, filled with vitamin B Complex. It works to give coolness to the brain this keeps you away from feeding irritable and despair. It is also very good for the health of your teeth. By eating it regularly, you can get rid of pain in teeth and gums. It is protects from anemia reduces blood loss and also reduces the effect of vomiting. Magnesium present in the fruit balances the water in the body this removed the resulting acid in the joints. It has the property of absorbing the sugar present in the body in this way it maintains normal level of sugar in the body.
- Custard Apple is a wonderful tasty and sweet fruit, as well as it contains Countless medicinal properties. It is a very easy source to keep the body healthy and away from disease.

## Litchi

Annual Production:- 47552 MT Main Areas of Cultivation:-Sarguja, Surajpur, Jashpur, Balrampur



- Its botanical name is Litchi chinensis. It is known as a delicious juicy fruit. It is a tropical fruit that originated from China. It was a beloved fruit of king Juang Jang who was from Hang dynasty is ancient times It was delivered to the king by fast paced horses as it grew only in the Southern part of China in 1764. It was broutht by Joseph Frankois D palma to the islands of Reunion in 1764 later it came to Madagascar and it became the chief producer/cultivator of Litchi. It is grown in Madagascar, India, Bangladesh, Pakistan, South Taiwan, North Vietnam, Indonesia, Thailand, Philippines and South Africa.
- It is the chief fruit of summer season. It is sweet and juicy at the same time it is very beneficial for health. It contains Carbohydrates, Vitamin C, Vitamin A, B Comples in abundance. Beside this it consists of minerals like potassium, Calcium, magnisium, Phosphorus, and iron. Oligonol and Betacarotene present in Litchi helps to keep the heart healthy, reduces the growth of Cancer cells, protects from Asthma relief from constipation and helpful in weight reduction. Eating litchi daily improves the look on the face and symptoms of aging are less visible.

## Dragon Fruit

Annual Production:- 195 MT Main Areas of Cultivation:-Durg, Gariyaband, Raigarh



Also known as white fleshed pitahaya is hylocereus undatus in Botany. Its pink colored shining flowers are known as dragon fruit. It is indigenous to America. Like kiwi this fruit is not only juicy and good in taste but also very beneficial for health. It contains less quantity of cholesterol and helps in irritable bowl syndrome. It is also very useful for the treatment of skin and hair. It contains Vitamins, Minerals and phytonutrients. It is rich in Antioxidants, Vitamin C, Polyunsaturated Fatty Acids, Omega 3 and Omega 6 fatly acid, Protein and Beta-Carotene. It can be eaten in the form of salad. It contains carbohydrates and Thiamine which helps in digestion of food in your digestive system. It is helpful in lowering cholesterol helps with stomach related diseases, lowers blood sugar level, keeps your heart healthy, reduces the risk of cancer and anemia, increases immunity, beneficial for strengthening bones and teeth it helps to increase platelet count and helps our body to regenerate and repair cells.

## Aonla

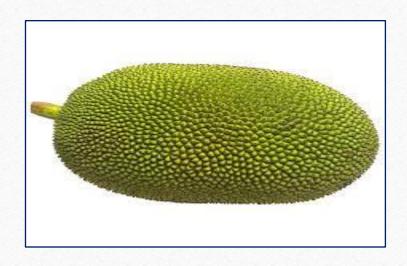
Annual Production:- 28190 MT Main Areas of Cultivation:kabirdham, koria, Kondagoan, Dhamtari, Raipur



• Its botanical name is phyllanthus emblica. It is a fruit bearing tree, Its fruit are small green, smooth and mottled. It is sour and in taste. According to Ayurveda it is an considered to be very healthy. Awala is the natural and the highest source of Vitamin C. Awla has the power to cure asthma, cough, constipation, chest disease, heart problems, urinary disorder, respiratory diseases, Tuberculosis, anorexia, inflammation, blood bile, and flax. It increase Virility by reinforcing semen, burns fat and reduces obesity. In Hindu belief, Amala tree along with Amla fruit is also sacred as the awla fruit is very dear to lord Vishnu.

## Jackfruit

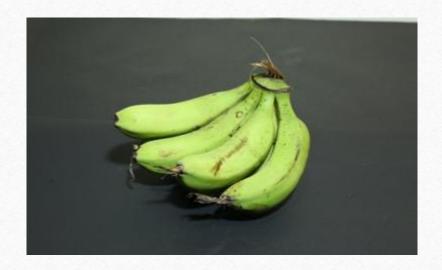
Annual Production:- 156026 MT Main Areas of Cultivation:-Raigarh, Kanker, Bilaspur, Mahasamund, jagdalpur



• Jack Fruit also known as Artocarpus Heterophyllus in botany. Jackfruit is the most liked fruit in India, and it is the largest fruit. People are fond of its vegetable, pakore and pickle. When it is ripe, the sweet fruit inside it is eaten which is very delicious. Jack fruit Consist of vitamin A, Thiamine, Potassium, Calcium, Iron, Riboflavin, Niacin, Zinc and is rich in fiber. It does not Consist of any calories. It is helpful in reducing bloodpressure, reduce the risk of heart Problems and anemia makes the bones strong, increase the immunity of the body, cures ulcer, helps in problems of digestion and has the qualities to increase eyesight.

#### Banana

Annual Production:- 567502 MT Main Areas of Cultivation:-Raigarh, Durg, Bilaspur, Korba, Mahasamund, Bemetara



• The Botanical name for banana is mesa. It Originated in the Tropical region of Southeast Asia and were probably first grown in Papua new guinea. Today they are cultivate through out tropical region. It is very useful for health. It is the best source for sugar and fiber. It contain Iron, calcium, magnesium, potassium, vitamin A and B, Vitamin B6, Folic Acid, Riboflavin and Niacin. Bananas Contain the amino acid, tryptophan. Bananas are the excellent source for energy. Probiotic bacteria cures digestive system and pectin keeps constipation and acidity away. It cures ulcer and diarrhea. Magnesium in banana keeps stress away and potassium develops muscle. It is also cultivated for its fiber production and as a decorative plant.

#### Pears

Annual Production:- 4600 MT Main Areas of Cultivation:-Sarguja



• The botanical name of pear is Pyrus. It is a sub acidic fruit associated with apple fruit and is found to be high in sugar and low in acid. It was originally native to North America, Western Europe and extended to the eastern Zambu dweep. It has many Vitamins and minerals therefore if eaten it suppliments dietary mineral of our body. It has dietary fiber in abundance which strengthens the digestive system. It cures constipation.

## Apple Ber

(Indian Jujube)
Annual Production:- 65585 MT
Main Areas of Cultivation:Raipur, Janjgir, Kondagoan,
Dhamtari



- ZIZIPHUS MAURITIANA also known as chineses date ber, chinee apple, jujube, Indian plum, Regi pandu, Indian jujube, drunks (in barbados) and masau, is a tropical fruit tree species belonging to the faimily Rhamnaceae.
- The fruits are rich in vitamin C, A and B complex. The composition varies in different varieties. Its leaves contain 5.6% digestible crude protein and 49.7% total digestible nutrients. Indian Jujube is a hardy fruit tree which is cultivated all over the country particularly in Maharashtra, Gujarat, Madhya Pradesh, Punjab, Haryana, Rajasthan, Bihar, Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal and Assam.
- India ranks second among ber growing countries in the world after China.

## Bael

Annual Production:- 1600 MT Main Areas of Cultivation:-Bastar, Sarguja and Jashpur



- Aegle marmelos commonly known as bael, also Bengal quince, golden apple, Japanese bitter orange, stone apple or wood apple, is a species of tree native to the Indian subcontinent and Southeast Asia. It is present in Sri Lanka, Thailand and Malesia as a naturalized species. The tree is considered to be sacred by Hindus.
- The fresh ripe pulp of the higher quality cultivars, and the "sherbet" made from it, are taken for their mild laxative, tonic and digestive effects. A decoction of the unripe fruit, with fennel and ginger, is prescribed in cases of hemorrhoids. It has been surmised that the psoralen in the pulp increases tolerance of sunlight and aids in the maintaining of normal skin color. It is employed in the treatment of leucoderma. Marmelosin derived from the pulp is given as a laxative and diuretic. In large doses, it lowers the rate of respiration, depresses heart action and causes sleepiness.
- For medicinal use, the young fruits, while still tender, are commonly sliced horizontally and sun-dried and sold in local markets. They are much exported to Malaya and Europe. Because of the astringency, especially of the wild fruits, the unripe bael is most prized as a means of halting diarrhea and dysentery, which are prevalent in India in the summer months. Bael fruit was resorted to by the Portuguese in the East Indies in the 1500's and by the British colonials in later times.

## Cashew Annual Production:- MT Main Areas of Cultivation:Baster Division



- The **cashew tree** (*Anacardium occidentale*) is a tropical evergreen tree that produces the cashew seed and the cashew apple. It can grow as high as 14 m (46 ft), but the dwarf cashew, growing up to 6 m (20 ft), has proved more profitable, with earlier maturity and higher yields.
- Cashews are commonly used in Indian cuisine and Pakistani cuisine, whole for garnishing sweets or curries, or ground into a paste that forms a base of sauces for curries (e.g., korma), or some sweets (e.g., kaju barfi). It is also used in powdered form in the preparation of several Indian sweets and desserts. In Goan cuisine, both roasted and raw kernels are used whole for making curries and sweets. Cashews are also used in Thai and Chinese cuisines, generally in whole form. In the Philippines, cashew is a known product of Antipolo, and is eaten with suman. The province of Pampanga also has a sweet dessert called turrones de casuy, which is cashew marzipan wrapped in white wafers. In Indonesia, roasted and salted cashews are called kacang mete or kacang mede, while the cashew apple is called jambu monyet(lit. 'monkey rose apple').

#### Lemon

Annual Production:- 70549 MT
Main Areas of Cultivation:Narayanpur, Bilaspur and
Balodabazar



- The **lemon**, *Citrus limon* (L.) Osbeck, is a species of small evergreen tree in the flowering plant family Rutaceae, native to South Asia, primarily North eastern India.
- The fruit, juice, and peel are used to make medicine. Lemon is used to treat scurvy, a condition caused by not having enough vitamin C. Lemon is also used for thecommon cold and flu, H1N1 (swine) flu, ringing in the ears (tinnitus), Meniere's disease, stomach upset and vomiting from pregnancy, and kidney stones.
- Consuming a range of fruits and vegetables appears to reduce the risk of many lifestyle-related health conditions.
- Lemons are a good source of vitamin C. Vitamin C has long been seen as an antioxidant, anti-atherogenic, and anti-carcinogenic. However, some of these claims have been questioned in recent years, and the precise effect of ascorbic acid remains unclear. which are thought to boost health and wellbeing in several ways. Let's look at some of the possible benefits of consuming lemons.
- Lowering stroke risk, Maintaining a healthy blood pressure, Cancer prevention, Maintaining a healthy complexion, Preventing asthma, Increasing iron absorption, Weight loss

# RAW FOREST PRODUCE

#### Mahua

Annual Production:- 40000 MT Main Areas of Cultivation:-Gidam, Konta, Bijapur, Gariyaband, Balrampur



- The scientific name of Mahua is Madhuca Longifolia and belongs to the family Sapotacece. According to the age of the tree it can harvest flowers and yield 20 kg 200 kg of seeds every year. In tropical areas it spearing is done for its oily seeds, flowers and timber. Raw fruits are used as vegetable. Mahua flowers are sweet and fleshy. They are eaten fresh or dried powdered and cooked with flower to make bread. The flowers are used as sweetener and the dry one are used as dry fruits.
- In the tropical regions of India Mahua flowers are fermented used to produce an alcoholic drink. Flowers is also used as animal feed as it affects the health and milk production. The medicinal nature of Mahua tree is very vital in many tribal areas of India. Due to its usefulness in the tribal community it is considered sacred.

### Mahua Seed

Annual Production:- 4200 MT Main Areas of Cultivation:-Konta, Bijapur



 Madhuca Longifolia is the botanical name of Mahua seed or Tora. The Mahua seed lies in the center of the fruit from which oil in extracted. Contain 50-61% oil, 16.9% protein, 3.2% fiber, 22% Carbohydrates, 3.4% ash, 2.5% saponins, and 0.5% tannins. Mahua oil has a significant economical importance as it contain a good edible fat. The oil is used as a laxative and to cure piles. It is used to cure skin diseases, to make soaps and detergents, and as botanical butter. It is also used as fuel oil.

#### **Tamarind**

Annual Production:- 31000 MT Main Areas of Cultivation:-Keshkal, Narayanpur



The botanical name of Tamarind is Tamridus Indica. It is radish brown in color and very sour & tangy in taste. Tamarind which is sizzling and mouthwatering is beneficial for health. Tamarind is used in many ways. To make a refreshing drink in summer. Fresh mint leave added to this drink enhances the feeling of activated and enthusiasm. If taken regularly during summer season eliminates the chances of sun stroke. This drink also acts as a light weight diuretic. At the same time head ache caused by sunburn. It is an appetizer too. It helps to get rid of stomach worms. It is also considered as a tonic for the heart. In South India tamarind pulp is added to the pulses to make it sour tasty and Digestible. It there is a high amount of fluoride in the drinking water, tamarind reacts with fluoride and stops its absorption in the body. Regular use of tamarind can cure joint pain. Tamarind seeds are used as medicine in Ayurvedic formulation. Its seed powder is dissolved in water and applied on a scorpion bite.

### Sal Seed

Annual Production:- 92400 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Shorea robusta seed- The extracted crude sal oil/fat is greenish-brown and has a characteristic odour. Due to the presence of more saturated fatty acids, it is solid at room temperature. Because of this, it is known as sal fat or sal butter. The oil is used as cooking oil after refining. The oil contains 35-45% stearic acid, an 18-carbon saturated fatty acid and 40-45% oleic acid, which is a mono unsaturated fatty acid. This species ranges south of the Himalaya, from Myanmar in the east to Nepal, India and Bangladesh. The tree is widely distributed in tropical regions and covers about 13.3% of the forested area in the country. al is a major means of survival for forest dwellers in the Central Indian states of Orissa, Chhattisgarh and Madhya Pradesh.
- The mean annual temperature required is between 22–27 °C (72–81 °F) and 34–47 °C (93–117 °F). The tree requires mean annual rainfall between 1,000–3,000 mm (39–118 in) and maximum of 6,600 mm (260 in). S. robusta flourishes best in deep, well-drained, moist, slightly acid, sandy to clayey soils. It does not tolerate waterlogging. The most favourable soil is a moist sandy loam with good subsoil drainage. Soil moisture is essential.

## Kaalmegh

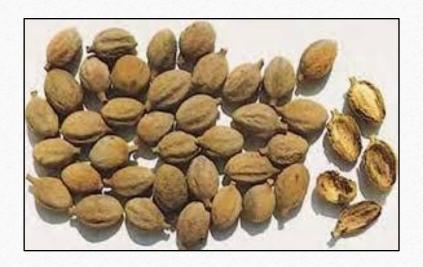
Annual Production:- 1500 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Andrographis paniculata -This herb is extremely bitter in taste in all parts of the plant body. The plant is known in north-eastern India as *Maha-tikta*, literally "king of bitters", and known by various vernacular names (see the table below). As an Ayurveda herb it is known as *Kalmegh* or *Kalamegha*, meaning "dark cloud".
- The plant comes up well in tropical and subtropical regions all over India.It is a hardy species, therefore, can be grown in medium fertile sandy loam to clay-loam soils, possibly with irrigation.It can withstand partial shade of trees, say few hours, but it is cultivated in open fields.
- The whole herb is bitter in taste and is source of several diterpenoids of which a bitter water soluble lactone "andrographolide" is important. The plant is acrid, cooling, laxative, antipyretic, antiperiodic, anti-inflammatory, expectorant, sudorific, anthelmintic, digestive and stomachicIt is useful in burning sensation, chronic fever, malaria and intermittent fever, inflammation, cough, bronchitis, skin diseases, intestinal worm, dyspepsia, flatulence, colic, diarrhoea, dysentery, haemorrhoids and vitiated condition of pitta. The plant is often used as a substitute for Chirayita (Swertia chirayita).

#### Baheda or ihbhitaki

Annual Production:- 3000 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Terminalia bellirica -Bibhitaki is large deciduous tree native to India and about 100 species are distributed throughout the world. It is found commonly in plains and lower hills of Southeast Asia. In India it is abundantly found in Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Punjab and Maharashtra.
- The tree has huge importance in traditional systems of medicine like Ayurveda, Unani and Chinese medicine considering its properties to cure several health problems. Beheda fruit is also very popular in India as it constitutes a popular Ayurvedic medicine Triphala.
- It is laxative in nature and used in **the** purgation therapy. **Fruit** is anti-bacterial in nature and used to fight against various infections. It is rejuvenating in nature and it is very beneficial for hair growth. Bibhitaki is useful in hoarseness of voice, asthma, cough and common cold.
- **Health Benefits of Baheda** -Anti-ulcer activity, Antidepressant activit, It can give relief from respiratory and gastrointestinal problems, It may prevent metabolic syndrome, It can keep our liver healthy, Immunomodulatory activity, Anti-diabetic activity, Anticancer activity, As a hair tonic.

#### Harra

Annual Production:- 7000 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Terminalia chebula Is found throughout South East Asia including in India, Sri Lanka, Bhutan, Nepal, Bangladesh, Myanmar, Cambodia, Laos, Vietnam, Indonesia, Malaysia, Pakistan and Thailand.
- The **fruit** is also used to prevent aging, and building immunity and body resistance against diseases. Harad benefits the whole digestive tract. It is said to increase appetite, and improve digestion and absorption. It provides effective cure for piles, gastro-intestinal infections and diarrhoea.
- Harad is known to protect against age-realted diseases. This is because it helps fight oxidative stress. it was observed that harad boosts the concentration of many well known antioxidants, like gluthione, vitamin C, gallic acid, and ellagic acid. The fruit of the harad is an effective antioxidant. It is an excellent free radical scavenger. Studies also show that, it can be used to protect humans from radiation induced damage. The fruit is also used to prevent aging, and building immunity and body resistance against diseases.
- Harad benefits the whole digestive tract. It is said to increase appetite, and improve digestion and absorption. It provides effective cure for piles, gastro-intestinal infections and diarrhoea. It can also be used for colic and wind, worms, constipation, IBS and vomitting. The unripe fruit is considered to be more of a laxative than the ripe one. harad is also useful for infections of the gut and for parasites including amoebas. It is also said to be effective for use in inflammation of the mucous membrane and ulcers.

## Charguthli

Annual Production:- 5700 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



Buchanania lanzan- Chironji is extracted by bursting the kernels of fruits. Which is colloquially known as Pial, Priyal or Charoli or Chironji. The Charoli tree is mostly found in the dry mountainous regions. This tree is specially grown in places like South India, Orissa, Himachal Pradesh, Madhya Pradesh, Chota Nagpur etc. The length of this tree is around 50 to 40 feet. The kernels extracted from the fruit of this tree are called meengi. This sweet force is ejaculatory, good for the heart, balsamic, sweet smell, vata pitta sedative and amvodhak. Which is used in sickness and physical weakness. This ripe fruit of Charoli is heavy as well as sweet, balsamic, cold and cold, and is a suppressant of gastric, burning, thirst and fever. Both the leaves and the bark derived from the kernels of the fruit of this tree are useful to humans. Chironji is mostly used in dry fruits such as pudding, laddus, kheer, pak, etc. It is also used in cosmetics.

## GOND / TRAGACANTHA GUM

Annual Production:- 170 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Astragalus gummifer- Edible gum is usually sourced from plant gums, essentially derived from Middle Eastern legume or acacia plants. Alternatively known as Tragacanth or acacia gum, this natural gum is procured after drying the sap of a variety of gum-producing plants found in the Middle East and parts of Gujarat, Maharashtra, Rajasthan and Punjab. Edible gum is water soluble which makes it easy to mix with a range of ingredients. The gum is traditionally been used in remedies to tackle ailments like diarrhea, cough and congestion.
- Gondh or edible gum has long been used as a binding and a thickening agent by the food and pharmaceutical industry. It is also used as an emulsifier, stabilizer and as a texturant additive. The ingredient is commonly used in bakery items, beauty products, fizzy energy drinks, ice creams, et cetera.

#### Lakh

Annual Production:- 8500 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Lac is a natural resin secreted by insects that feed on certain host trees. It is a valuable natural product, used widely in the food, furniture, cosmetics and pharmaceutical industries with a huge international market potential.
- India is the largest producer of lac in the world and contributes to about 70% of the world's need. However, there is currently a gap of 21% between demand and supply.
- Within India, the state of Jharkhand has the largest number of host trees and ranks first in the country for production. However, in the Gumla district of Jharkhand not even 20% of lac host trees are in use.
- Many of these trees are on land owned by tribal groups. With annual incomes for lac producers being over 29,000 rupees (£290), there is a huge opportunity for tribal groups to benefit from this livelihood.

## Nagarmotha/ Nutgrass

Annual Production:- 1500 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Cyperus scariosus is a highly invasive pestilent, and as such can be found in all tropical, subtropical and temperate regions of the world. In India, it is common in open, disturbed habitats to an elevation of about 1800 m.
- Cyperus scariosus is more commonly known as cypriol. This plant largely grows in Madhya Pradesh, India and is called nagarmotha. The smell of cypriol oil is woody and earthy. **Nagarmotha / Cypriol Oilis** a prized ingredient in perfumes that are made in India. Cyperus scariosus grows to about 2 1/2 feet, with a thin stem that is dark green in color. It is a flowering shrub, where the flowers measure 2 to 8 inches in length.
- The rhizome is what generates the oil and contains alkaloids, sodium, minerals, along with calcium, sodium, and carbonates.
- Ayurvedic physicians use the plant for medicinal purposes for fevers, digestive system disorders, dysmenorrhea and other maladies. Modern alternative medicine recommends using the plant to treat nausea, fever and inflammation; for pain reduction; for muscle relaxation and for many other disorders.
- The essential oil from the tuber has a deep, spicy woody-earthy smell, is highly-prized in India and is used extensively as a raw ingredient in perfumery, sromatherapy and stoap making.

# PROCESSED FOREST PRODUCE

## Honey

Annual Production:- 400 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- Honey is a sweet, viscous food substance produced by bees and some related insects. Bees produce honey from the sugarysecretions of plants (floral nectar) or from secretions of other insects (such as honeydew), by regurgitation, enzymatic, activity, and water evaporation. Bees store honey in wax structures called a honeycomb. The variety of honey produced by honey bees (the genus *Apis*) is the best-known, due to its worldwide commercial production and human consumption. Honey is collected from wild bee colonies, or from hives of domesticated bees, a practice known as beekeeping or apiculture
- Like dairying apicultutre is also practiced mostly by marginal and landless farmers. It also supplements agriculture ,generate employments and also helps in increasing nutritional intake of rural population.it provides employment to about 3 lakh rural people.
- Types include Rapeseed honey, Eucalyptus honey, Sunflower honey, Himalayan honey, Forest multiflora honey etc. more tham 50% honey produced in India is exported now.

## Triphala



- triphala is an Ayurvadic herbal rasayana formula consisting of equal parts of three my robalans, taken without seed: Amalaki (Emblica Afficinalis), Bibhitaki (Terninalia Bellirica), and Haritaki haritaki (Terminalia cbebula)
- Triphala (the three fruits) is an Ayurvedic, polyherbal preparation comprising three ingredients. The ingredients are all fruits, and they're all native to India: bibhitaki, amalaki, and haritaki. Each fruit is thought to positively impact the body's three doshas. In Ayurvedic medicine, doshas are elemental forces believed to permeate body, mind, and spirit. Ayurveda is a centuries-old Indian medicinal system. Triphala has been used in Ayurvedic medicine for thousands of years. It's thought to support bowel health and aid digestion. As an antioxidant, it's also thought to detoxify the body and support the immune system.
- Triphala is available commercially in supplement form, as a pill, and as a liquid extract. The liquid extract is typically meant for external use and should never be put into the eyes, unless it's specifically prescribed for this purpose.

## Ashwagandha Powder/ Indian Ginseng



Withania somnifera is cultivated in many of the drier regions of India. It is also found in Nepal, China and Yemen. It prefers dry stony soil with sun to partial shade. To propagate it can be grown from seed in the early spring, or from greenwood cuttings in the later spring. The plant, particularly its root powder, has been used for centuries in Traditional Indian Medicine. Mainly due to the poor quality of clinical research with the plant, there is no high-quality evidence that it provides any medicinal benefit and may cause adverse effects if taken together with prescription drugs.

## Chyawanprash



- Chyawanprash is a cooked mixture of sugar honey, ghee, Indian Gooseberry (amla), jam, sesame oil, berries and various herbs and spices. It is prepared as per the instructions suggested in Ayurvedic texts. Chyawanprash is widely sold and consumed in India as a dietary suppliment.
- Chyawanaprash is a general health supplement and is among the best known Ayurvedic Medicine. It helps fight day to day ailments such as cough and cold .However, it is recommended to take precautions for diabetics, as percentage of sugar may vary from 66% to 87%, depending on chyawanprash, from one manufacturer to another. It's a good source of antioxidants.
- The recipe of chyavanprash is mentioned in manuscripts written for ayurvedic method of treatment viz. Ashtangahridavam, Charakasamhita, Sangandharasamhita. Amla is a primary ingredient of Chyawanaprash which makes it rich in Vitamin C (445 mg/100g). The number of herbs used may vary from 25 to 80 but the main ingredient of all Chyawanprash is amla.

## Safed Musli Churna Powder

Annual Production:- 100 MT Main Areas of Cultivation:-Bastar, Sarguja, Jashpur, Bilaspur



- **Chlorophytum borivilianum** It is cultivated and eaten as a leaf vegetable in some parts of India, and its roots are used as a health tonic under the name *safed musli*. In traditional Indian medicine it is used as Rasayan or adaptogen.
- In India, it is mainly cultivated in Rajasthan, Gujarat and Madhya Pradesh. Presently, the roots fetch an attractive price, which is decided by the size of the tubers and its physical appearance. It is in large consistent demand in the world market and its annual demand is estimated to be about 300-500 tonne. Since Musli is a tuber species, it needs a sandy loamy soil with neutral pH and organic matter in high quantity to yield better results. Heavy black soil is not suitable for cultivation of Musli.
- The major components of safed musli are carbohydrates (41%), protein (8-9%), saponins (2-17%) and root fibres (4%). Saponin is the chief medicinal compound present in roots. The roots of safed musli are well known tonic. It has key application in the care of general debility by acting as an aphrodisiac. It has also been used in the treatment of rheumatism and the leaves for vegetable purpose in central India.

## HANDLOOMS

## Kosa Silk/Tussar Silk

Main Areas of Cultivation:-Janjgir-Champa, Raigarh, Korba, Balodabazar





- \* Tussar silk also known in Sanskrit as Kosa Silk is produced by the larvae of several species of silk worms belonging to the moth genus Antheraea, mylitta. Theses silkworms live in the wild forest in trees belonging to Terminalia species (Arjuna, Saja) and shorea Robusta (Sal tree) as well other food plants like Ziziphus jujuba (Jamun), Ziziphus mauritiana (Ber), Pasidiun guajava (Amarud) commonly found in Chhattisgarh, eating off the leaves of the trees they live on. Tussar cocoons are collected which are single shelled and oval in shape and are then boiled to extract the silk yarn from it. Boiling is indeed very important part in the manufacturing of silk as it softens the cocoon and makes the extraction of silk easier. In conventional sericulture, the cocoons are boiled with the larvae still inside, however if the cocoon are boiled after the larvae have left them, the silk made is then called by Non-Violent Silk or Ahimsa Silk.
- Chhattisgarh State are known for producing high quality tussar silk and second largest producer in India. Tussar silk is valued for its purity, rich texture, softness and elegance. Beging a shiny, lustrous and soft silk, tussar is extensively used for making traditional Indian dresses including sarees, kurtas, salwar suits, shirt and many more garments. Available naturally in shades of gold –pale, dark, honey, tawny, creamy, etc. Tussar Silk is considered an ideal as well auspicious wear for marriages, religious ceremonies and other important functions. The fabric is also cooler than the other varieties and is a Lot more porous, therefore, breathable. Being cooler than the other varieties of Silk makes Tussar extremely wearable in in warner parts of the world.
- The silk is beautiful to printing and painting and is therefore increasingly used in designer boutiques to croft some of the most innovative motifs ever. The silk weaver not only weaves with yarn but with intense feeling and emotion Silk is always woven and interwoven with way of life and culture of a region Craftsmen all over the state try to master the technique of weaving as exclusively as one can think of.
- The original rich gold shaded tussar silk is dyed with colours of a very special hue and depth. Earliar only natural dyes were used but with time the range of colour and motifs have increased dramatically. The Kosa cloth is available in a range of colours and patterns that are block printed, painted or embroidered. The silk can also be blended with some other common fabrics for making beautiful dress materials. Bafta is Known blend of tussar and cotton shawls and stoles are also produced using a blend of tussar and other natural fibers like cotton, wool, spun etc.



## GENDA / MARIGOLD

Annual Production:-11038 MT Main Areas of Cultivation:-Kondagoan, Korba, Balrampur



- TAGETES ERECTA- Depending on the species, Tagetes species grow well in almost any sort of soil. Most horticultural selections grow best in soil with good drainage, even though some cultivars are known to have good tolerance to drought.
- The Marigold flower, an ornamental and medicinal plant, grows best in nutrient-rich, moist soils, with a lot of exposure to the sun. Calendula is an annual plant best sown in April/May. These plants grow quickly, within a few weeks to reach full potential with stable, angular stems and strong, hearty leaves.
- Marigold flowers contain essential oils and a high concentration of flavonoids (secondary plant substances), such as carotene. They act as anti-inflammatories to promote topical healing and soothe irritated skin. Topical treatment with a diluted marigold solution or tincture accelerates healing of wounds and rashes.

#### Gladiolus

Annual Production:- 2307 MT Main Areas of Cultivation:-Bilaspur, Mungeli, Raigarh, balrampur



• Gladiolus is a genus of perennial cormous flowering plants in the iris family. It is sometimes called the 'sword lily', but is usually called by its generic name. The genus occurs in Asia, Mediterranean Europe, South Africa, and tropical Africa. The center of diversity is in the Cape Floristic Region. These flowers are variously coloured, ranging from pink to reddish or light purple with white, contrasting markings, or white to cream or orange to red.