



AgriVerse

The future of decentralised Agriculture

In Phase 1 **we have selected India**

In Phase 2 it will be spread across Europe and Africa

In Phase 1 **Why India?**

India is Best for Agriculture Compared to Other Countries

India is Best for Agriculture Compared to Other Countries

- India is known to grow the widest range of crops
- Total 96mn hectare irrigated area in India, it is the largest in all over the world.
- Indian agriculture has many sides, and it contributes 60% to overall India's agriculture GDP only by animal farming and horticulture.
- India is the world's largest wheat-producing country.
- India has the world's largest cattle herd (buffaloes), largest area planted to wheat, rice, and cotton, and is the largest producer of milk, pulses, and spices in the world.
- It is the second-largest producer of fruit, vegetables, tea, farmed fish, cotton, sugarcane, wheat, rice, cotton, and sugar.
- Indian agriculture is labour intensive, mostly subsistence farming, nearly 60% of its population is dependent on farming and most farms are rainfed.
- On the other hand, American farming is capital intensive, mostly commercial farming less than 3% of its population is dependent on farming and most farms are irrigated.
- India is an agricultural country and possesses fertile plains and numerous perennial rivers.
- About 72 percent of its population resides in rural areas. Nearly 70 percent of people are dependent on agriculture.
- About three-fourths of the cultivated land of India is used for food production.

In India we have selected 4 major parts in Karnataka Why Karnataka is Best for Agriculture Compared to Other States

- **The weather climate of Karnataka greatly supports agriculture. Karnataka's Kharif crops are rice, maize, moong dal, red chili, sugarcane, groundnut, soybean, turmeric, and cotton.**
- **Karnataka's rabi crops are mustard, sesamum, barley, wheat, and peas. Karnataka comes under the top Agriculture States in India**
- **Karnataka is one of the major producers of rice among all other states in India.**
- **Rice is the food crop harvested by Karnataka agriculture and sugarcane is the cash crop.**
- **Other cash crops sown in Karnataka agriculture apart from sugarcane are cashews, cardamom, betel (areca) nut, and grapes.**
- **Karnataka is the largest producer of coffee, raw silk, sandalwood, ragi (finger millet), sunflower, tomato and India's second largest producer of maize, safflower, grapes, pomegranate and onions.**
- **The state ranks fifth in India in terms of total area under horticulture.**

- **Agriculture in Karnataka is heavily dependent on the southwest monsoon. While only 26.5 per cent of the sown area (30,900 km²) is under irrigation, 64.60 per cent of the total geographical area is under cultivation.**
- **Crop production employs the bulk of Karnataka's population, particularly in rural areas.**
- **Karnataka agriculture occupies approximately 12.31 million hectares, accounting for 64.6% of the total area.**



1. LONG TERM



2. MID TERM



3. SHORT TERM



4. LIVESTOCK



LONG TERM

1.SANDALWOOD



2.TEAK TREE



3.RED SANDALWOOD



1.SANDALWOOD



SCIENTIFIC NAME: SANTALUM ALBUM

- Sandalwood is a class of woods from trees in the genus Santalum. The woods are heavy, yellow, and fine-grained, and, unlike many other aromatic woods, they retain their fragrance for decades. Sandalwood oil is extracted from the woods for use. Sandalwood is often cited as one of the most expensive woods in the world.

Where does sandalwood grow best?

Generally, be higher in the western part of the Wheat belt and South West, where the average annual rainfall is above 400 mm.

How much does it Takes to Grow

- It needs at least 8-15years to procure sandal wood from the tree.
- The heart wood starts developing after 6 years.

Where Sandalwoods are Used

- Sandalwood oil helps nourish the skin, improve the elasticity of skin cells, even out skin tone
- Sandalwood oil has a warm, woody odor and is commonly used as a fragrance in incense, cosmetics, perfumes, and soaps.
- In traditional medicine, sandalwood oil has been used as an antiseptic and astringent, and for the treatment of headache, stomachache, and urinary and genital disorders.
- In India, the essential oil, emulsion, or paste of sandalwood is used in the treatment of inflammatory and eruptive skin diseases.

Sandalwood Plantation Cost and Profit

- The profit and cost of sandalwood tree cultivation are depended on the market conditions and it will change year to year and region to region.
- Generally, in a one-acre land, you can grow the 400 to 440 sandalwood tree plants.
- One Tree May Be Consisting average of 80KG Heart wood in it.

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Is It Profitable to Grow Sandalwood?

- **Harvesting.** The sandalwood cultivation profit to an investor is tremendous
- Its market price ranges between \$35.29 and \$82.35 Per KG, with the top-quality sandalwood sometimes sold at around \$117.65 Per KG.

Farmyard Manure (FYM)

- **Cow Dung.**
- **Garden Compost.**
- **Vermin-Compost.**
- **Manure made from Green Leaves.**

Bio-Fertilizers

- **Neem (kernel, seeds & leaves).**
- **Cow's urine.**

Harvesting Time of Sandalwood, the heartwood of sandalwood trees is transferred into the mill and soft woods are removed.

By using some machine Tree

- Sandalwood tree grows well and matures after 6-12 years from planting so, it will be ready for harvesting.
- this hard sandalwood is transferring into powder.
- Sandalwood powder soaks in water for 2 days after it's used for making oil and other cosmetic products.

Sandalwood tree growths are depending on the many factors

- Selection of Land
- Selecting The Sandalwood Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

| Age of Sandalwood Tree (in Years) | Sandalwood yield (in KG) |
|-----------------------------------|--------------------------|
| 5-6 | 40 |
| 7-8 | 70 |
| 9-10 | 120 |
| 10-12 | 180 |

2. Teak Tree

Scientific Name: *Tectona grandis*

- Teak wood known as the king of timber belongs to the family Verbenaceae.
- It grows as a huge tree and yield excellent quality wood.
- Therefore teak wood has a higher demand in national as well as international market.
- Teak is a large deciduous tree up to 40 m (131 ft) tall with grey to greyish-brown branches, known for its high quality wood.
- It is better to soak the teak plant seeds for 12 hours and dry them for 12 hours for better germination.
- The age of the tree is approximately more than 200 years.



How do Teak trees grow?

- Teak grows well on moist sites.
- To produce high quality timber trees, the site should be subjected to a dry period of 3–5 months duration.
- Teak soil is deep, well- drained, and alluvial with high calcium, organic matter and other element content.
- The soil pH is 6.5–7.5.

Where does Teak plant grow?

- Teak grows well in alluvial soils, fairly moist, warm, tropical climate with pH ranges from 6.5 to 7.5.
- Teak show ed poor growth and form on dry sandy soil, shallow or hard pan soil, acidic, laterite, black cotton and water logged soils.

What are the benefits of Teak tree?

- Teak has a high oil content making it very weather resistant, therefore it offers good elasticity.
- This means it's an ideal timber for garden furniture and boat decks, amongst other things.
- Teak wood has a leather-like smell when it is freshly milled and is particularly valued for its durability and water resistance.
- The wood is used for boat building, exterior construction, veneer, furniture, carving, turnings, and other small wood projects.

How long does a Teak tree take to grow?

Usually, the teak wood plant takes 10 to 25 years to grow into a fully matured stage or final harvesting stage.

A teak plantation is definitely a profitable crop in India and all over the world as there is a huge demand for teakwood.

This process will take approximately 9 to 12 months, depending on the amount of ultraviolet light and the rain the teak is exposed to.

Is Teak wood farming profitable?

- Yes, Growing teak wood is definitely profitable.
- Considering if you are willing to spend 10–20 years maintaining it.
- And teak wood needs adequate water For it to grow in bigger size.
- Soil and the climatic conditions does play a major role in the growth of teak.

Teak tree growths are depending on the many factors

The major factors include the amount and distribution of rainfall and moisture, soil and light.

Teak grows naturally over a wide range of climatic condition, from the very dry (500 mm/year) to the very moist (up to 58.82mm/year)

Harvesting time of teak tree

- Generally teak starts flowering 6 years after planting, but profuse flowering occurs after 10–20 years
- Flowering occurs from June to September and fruits can be collected from November to January.

Teak tree growths are depending on the many factors

- Selection of Land
- Selecting The Teak Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

3.Red Sandalwood

Scientific Name: Pterocarpus santalinus.

What is special about red sandalwood

- Red sandalwood is a tree.
- The wood at the center of the trunk (heartwood) is used as medicine.
- Red sandalwood is used for treating digestive tract problems, fluid retention, and coughs; and for “blood purification.”
- In manufacturing, red sandalwood is used as a flavoring in alcoholic beverages.

How long does Red Sandalwood take to grow?

- It takes 10 years for the sandalwood tree to grow, but the returns are very high.
- Sandal trees can be grown in all types of soil except marshy land.
- It needs at least 10 to 20 years to procure sandal wood from the tree.
- A tree may be cut after attaining a girth (circumference) of 2½ to 3 feet at the chest height of the tree. The heart wood starts developing after 7 years.

Red sandalwood Benefits

- Red sandalwood is one of the best natural ingredients that provide sufficient nourishment to our skin cells ensuring a healthy looking skin.
- Combats skin pigmentation
- Regulates Diabetes
- Purifies blood

Red Sandalwood Plantation Cost and Profit

- ONE TREE MAY BE CONSISTING average of 60 – 100 Kgs Heart wood in it. Price Range starts from \$141.18 –\$152.94 / kilogram.
- The price varies according to the quality, application, length, etc.
- While the costs of Red Sandalwood cultivation are in the region of Rs \$9411.76–\$11764 per acre, the potential profits are \$117,647.05 to \$235,294.117.



Is Red sandalwood profitable?

- Harvesting. The Red sandalwood cultivation profit to an investor
- Its market price ranges between \$35.29 and \$82.35 per kg, with the top-quality
- sandalwood sometimes sold at around \$117.65 per kg.

Farmyard Manure (FYM)

- Cow Dung.
- Garden Compost.
- Vermin-Compost.
- Manure made from Green Leaves.

Bio-Fertilizers

- Neem (kernel, seeds & leaves).
- Cow's urine.

Red Sandalwood tree growths are depending on the many factors

- Selection of Land
- Selecting The Sandalwood Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

MID TERM

1.AVACADO



2.ARECANUT



3.DRAGON



4.RUBBER



5.COFFEE



6.PEPPER



1. AVACADO

SCIENTIFIC NAME: Persea Americana



- Avocados are a source of vitamins C, E, K, and B6, as well as riboflavin, niacin, foliate, pantothenic acid, magnesium, and potassium.
- They also provide lutein, beta carotene, and omega-3 fatty acids. Avocados contain high levels of
- healthy, beneficial fats, which can help a person feel fuller between meals.
- An avocado is a bright green fruit with a large pit and dark leathery skin.
- They're also known as alligator pears or butter fruit. section. They're the go-to ingredient for guacamole dips.

Where does Avocado grow best?

- In a very limited scale and in a scattered way it is grown in Tamil Nadu, Kerala, Maharashtra,
- Karnataka in the south-central India and in the eastern Himalayan state of Sikkim.

How much Time does it Takes to Grow

- Plant a tree, and you'll wait two to three years for fruit.
- Even so, there's something special about home-grown avocados that make them worth the wait.

Where Avocado are Used

- Avocados contain an abundance of nutrients that are essential for optimal health, and regularly consuming avocados could help improve overall diet quality.
- Avocados are rich in many nutrients, including fiber, healthy fats, vitamin C, vitamin E, vitamin B6, potassium, magnesium, and folate.

Avocado Plantation Cost and Profit

- These trees are in what's called sleeves, and they're just a tad smaller than five-gallons.
- Smaller ones might be as low as \$20, but five-gallons run anywhere from \$25 up to \$50.
- Avacoda tree yield up to 50 to 100kg per year

Harvesting Time of Avocado

The fruit of avocado trees is best harvested when immature, green and hard and ripened off the tree. Avocado fruit is **usually ready to harvest in September**, so it's time to pick some fruit now.

Avocado tree growths are depending on the many factors

Results indicated that the major impediments were water logging (76.2%), flooding (73.0%), soil fertility (62.5%) and soil salinity (42.9%), to agricultural development and affect the crop production.

- Selection of Land
- Selecting The avacoda Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

2. ARECANUT

SCIENTIFIC NAME: *Areca catechu*



- The arecanut palm is the source of common chewing nut, popularly known as betel nut or Supari.
- In India it is extensively used by large sections of people and is very much linked with religious practices.
- India is the largest producer of arecanut and at the same time largest consumer also

Where does arecanut grow best?

- India is the largest producer of arecanut and at the same time largest consumer also. Major states cultivating this crop are Karnataka (40%), Kerala (25%), Assam (20%), Tamil Nadu, Meghalaya and West Bengal.

How much does it Takes to Grow

- It is a cross pollinated crop and fruit set normally varies form 12.0 to 40.0 per cent and the time taken from full bloom to maturity of the fruit ranges from 35 to 47 weeks.
- Climate and Soil: The arecanut palm is capable of growing under a variety of climatic and soil conditions.

Where arecanut are Used

Areca nut and the plant as a whole is used widely in India and South Asia as: a masticator for chewing purposes, vegetable, medicine, stimulant, timber, fuel wood, clothing, wrapping, lubricant, tannin and so forth. The nut is chewed with the betel leaf as it has a stimulating effect.

Arecanut Plantation Cost and Profit

- One acre consisting 500 trees and average life of tree is 25-30 years. The yield commences from 5th year after planting

Is It Profitable to Grow Arecanut?

- While we did know that arecanut is a lucrative cash crop and that increasing land areas of Karnataka are being converted to areca plantations, it seemed hard to believe that there was such an immense difference in its selling price, compared to other crops cultivated in the region.

Harvesting Time of Arecanut

- The bearing starts after 3 years of planting. Nuts are harvested when they are three quarters ripe.
- The number of harvests will vary from three to five in one year depending upon the season and place of cultivation.

Arecanut tree growths are depending on the many factors

Select a location with adequate sunlight and irrigation to ensure the plant grows easily. Remove excess shrubs and weeds near the betelnut plant. Betelnut plant thrives in a moderate climate and grows best when the temperature lies in the range 16-38 C (55-100)

- Selection of Land
- Selecting The Arecanut Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

3. DRAGON FRUIT

SCIENTIFIC NAME: Selenicereus Undatus



- We call this interesting plant a fruit, but it is actually a cactus. Dragon fruit is grown in Asia, Mexico, Central America, South America, and Israel today.
- Its textured, scaly skin comes in pink or yellow, while its flesh may be red or white with scattered, tiny, black seeds.

Where does dragon grow best?

- Dragon fruit needs full sun, so choose a sunny area in your garden or a sunny windowsill that gets at least six hours of sunlight a day.
- For the soil, choose potting soil that is well-draining (dragon fruits are sensitive to “wet feet,” or consistently wet roots) and rich in organic
- At present, dragon fruit is grown mostly in Karnataka, Kerala, Tamil Nadu, Maharashtra, Gujarat, Odisha, Andhra Pradesh, and Andaman and Nicobar Islands.

How much does it Takes to Grow

- Fruits are ready to be harvested 30–35 days after flowering. Each fruit weighs around 200 to 700 grams, depending on management practices. In well-managed orchards,
- Economic fruit yields start after three years and the average yield can be up to five tonnes per acre.

- Plants can begin flowering in as little as six to eight months, although container-grown plants may take up to two years to bear fruit.

Where Dragon Fruit are Used

- Dragon fruit is used for diabetes, prediabetes, high blood pressure, high cholesterol, obesity, and many other conditions, but there is no good scientific evidence to support these uses.
- Dragon fruit can be eaten raw or made into wine, juice, spreads, or desserts.

Dragon fruit Plantation Cost and Profit

- How profitable is dragon fruit farming?
- In well-managed orchards, economic fruit yields start after three years and the average yield can be up to 15 tonnes per acre
- Karnataka , Tamil Nadu, Andhra, are also wonderful for growing Dragon fruit. The weather conditions are perfect with moderate to low rainfalls in these areas.

Harvesting Time of Dragon

- Dragon fruits become ready for harvesting in **25-35 days after flowering.**
- The maturity index of the fruit is colour breaking stage from bright green colour to red colour.
- Exact time of harvesting is 3 to 4 days after colour change for local market.

Dragon fruit growths are depending on the many factors

- Selection of Land
- Selecting The Dragon Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

4. RUBBER

SCIENTIFIC NAME: Hevea brasiliensis



- The rubber tree (*Hevea brasiliensis*) is a fast growing, medium to tall tree (25 m high in plantations and up to 40 m in the wild), with deep tap-roots.
- The trunk is smooth and straight with a grayish bark. It is known for its laticiferous system from which latex is extracted by tapping the trunk.

Where does Rubber grow best?

- Karnataka and Kerala is the largest producer of natural rubber in India. Major areas: Kottayam, Kollam, Ernakulam, Kozhikode districts produce practically all the rubber of this state.
- In Karnataka the rubber is grown in Dakshina Kannada, Shivamogga, Chikmagalur, Udupi, Uttara Kannada, Kodagu, Hassan and Mysuru

How much does it Takes to Grow

The trees grow quickly, but need around 6-7 years before they start yielding the latex. – Rubber plantations need deep and well drained loamy soils. Elevation range from 300 to 450 metres above sea level is ideal for its growth.

Where Rubber are Used

- It is used in medical devices, surgical gloves, aircraft and car tires, pacifiers, clothes, toys, etc. Natural rubber is obtained from latex,
- A milky liquid present in either the latex vessels (ducts) or in the cells of rubber-producing plants.

Rubber Plantation Cost and Profit

- The average yield from rubber plantation is expected to be 375 kg per hectare annually if the trees are grown from seedlings and if they are
- Average yield per rubber tree is: 6–9 kgs per day. The total yield from the plantation is approximately: 4284 kgs (from 450 plants).

Harvesting Time of Rubber

- The rubber trees attain tappable stage in about five years provided they possess the required girth of the trees.
- Seedling must attain a girth of 55cm at a height of 50cm from the ground. In the case of budded trees the girth should be 50 cm at a height of 125–150cm from the bud union.

Rubber tree growths are depending on the many factors

- Selection of Land
- Selecting The Rubber Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

5. COFFEE

SCIENTIFIC NAME: Coffea



- Coffee is a popular drink made from the roasted beans of Coffea fruits (*Coffea arabica*, *Coffea canephora*). It contains caffeine and chlorogenic acid
- Coffea is a genus of flowering plants in the family Rubiaceae.

What is the importance of coffee?

- Drinking coffee has been linked to numerous health benefits, including a reduced risk of type 2 diabetes and liver, heart, and neurological diseases.
- It may also benefit mental health and help you live longer.

Where does Coffee grow best?

- Optimal coffee-growing conditions include cool to warm tropical climates, rich soils, and few pests or diseases. The most important conditions necessary for a coffee tree to grow is the presence of a temperate or tropical climate where there is no frost, ample sunshine, and plenty of water. And of course, too much direct sunlight or hydration can have a reverse and detrimental effect upon the trees.

How much does coffee take to grow?

- Depending on the variety, it will take approximately 3 to 4 years for the newly planted coffee trees to bear fruit.
- The fruit, called the coffee cherry, turns a bright, deep red when it is ripe and ready to be harvested.
- There is typically one major harvest a year.

Where Coffee are Used

- Boosts energy level
- May be linked to a lower risk of type 2 diabetes
- Could support brain health
- May promote weight management
- Linked to a lower risk of depression
- Could protect against liver conditions
- Supports heart health
- Could increase longevity

Coffee Plantation Cost and Profit

- Cost of planting material for coffee: Rs 10 per plant. Sale price of coffee beans per kg: Rs 120 (average price). Yield of beans per hectare of land: 3000 kgs (average). Total income from the farm: \$42.52
- Labour (seasonal and fixed) costs are US\$84.71 per bag, fertiliser at US\$25.33 and crop protection products (fungicides, pesticides and herbicides) are US\$12.72. With other production costs, this amounts to US\$166.61 in total

Harvesting Time of Coffee

- Harvesting time for coffee cherries will vary by region and altitude.
- Typically, there is only one harvest per year, which will last for 2 to 3 months as cherries ripen
- countries North of the Equator harvest occurs from September to March. South of the Equator harvest is from April to August

Coffee growths are depending on the many factors

- Selection of Land
- Selecting The Coffee Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

6. PEPPER

SCIENTIFIC NAME: Piper Nigrum



- Pepper farming is one of the most profitable businesses in India. Just like tomato farming and cucumber farming, pepper farming can be very lucrative.
- Pepper is grown mainly as a rainfed crop.
- Pepper requires heavy rainfall (150 – 250 cm) high humidity and warm climate. Thrives best on virgin soils rich in humus content and the crop can be grown at elevations up to 1500 m.

In which season pepper is grown?

- Harvesting Black pepper takes about 7 – 8 months after flowering to reach full maturity.
- In India the crop is harvested during December – January in plains and January – April in the high ranges of Western Ghats.

What is the importance of Pepper?

- Pepper is an antioxidant that provides anti-inflammatory and antimicrobial effects, among other health benefits.
- It may also boost brain function and increase levels of good cholesterol.

How is black pepper cultivation?

- The plant requires a long rainy season, fairly high temperatures, and partial shade for best growth.
- Propagation is usually by stem cuttings, which are set out near a tree or a pole that will serve as a support.
- Pepper plants are sometimes interspersed in tea or coffee plantations.

Where does Pepper grow best?

- Native to southern India and now common across Indonesia, Southeast Asia, Vietnam, Brazil, and other tropical regions, the black pepper is a tropical plant that enjoys warm, wet conditions with mild winters (equivalent to USDA Hardiness Zone 12).
- Black pepper is a plant of humid tropics requiring high rainfall and humidity.

Cost and Profit of pepper

- Pepper farming is one of the most profitable businesses in Nigeria and other countries of the world.

Harvesting time of Pepper

- Harvesting Black pepper takes about 7 – 8 months after flowering to reach full maturity. In India the crop is harvested during December – January in plains and January – April in the high ranges of Western Ghats.
- pepper is harvested two times each year – summer (June 9 – July 30) and fall (September 18 – November 8). The horticultural, harvest and packing processes are virtually the same regardless of the season.

Pepper Growths are depending on the many factors

- Selection of Land
- Selecting The Pepper Spices
- Host plant Management
- Irrigation Management
- Pest and Disease Control Management

SHORT TERM

1.ONION



2.CHILLI



3.TOMATO



1.ONION

SCIENTIFIC NAME: Allium cepa



- Introduction. Onions (*Allium cepa*) are a widely consumed bulb vegetable of the Liliaceae family.
- Onion is most commonly used for scarring. It is also used for other skin conditions and to prevent cancer and heart disease, but there is no good scientific evidence to support these other uses.
- However, onions may also provide potential health benefits.
- These may include reducing the risk of several types of cancer, improving mood, and maintaining skin and hair health, Blood pressure moderation

There are three sowing seasons for the onion crop in India

- Kharif(planted between July–August and harvested in October–December);
- late Kharif(planted between October–November and harvested in January–March)
- and Rabi (planted between December–January and harvested in March–May).

How to Plant Onions

1. Bury onion sets 2 to 6 inches apart, gently pressing them into loose soil no more than 1 inch deep.
2. Space transplants 4 to 5 inches apart and rows 12 to 18 inches apart.
3. Set the bulbs with the point end up.
4. Mulch with straw between rows to help retain moisture and stifle weeds.

How long do onion plants take to grow?

- An onion's average growth rate is 100 to 175 days till maturity.
- Whether in sets or seeds, here are a few varieties to consider: Texas Super Sweet, Vidalia Onions, Yellow Granex and Southern Belle Red: Generally grown in the South and planted in the fall for harvest in spring.

Onion Crop Cost and Profit

With a moderate yield of 70 Quintals per acre and a price of 15 at wholesale which is very low, farmers are still able to make a **profit of \$858.82 in 4 and a half months**. With 2 crops, the annual revenue per acre is approximately \$1764.70. which is more than what most other crops can earn for farmers.

Is onion farming profitable?

- You can make good profit from onion farming business, because commercial onion production is profitable.
- You will be able to make very good profits within a very short period of time.
- Both demand and value of onions in the market are good. It is a very popular item in the vegetable market.

Impressive Health Benefits of Onions

- Packed With Nutrients.
- May Benefit Heart Health.
- Loaded With Antioxidants.
- Contain Cancer-Fighting Compounds.
- Help Control Blood Sugar.
- May Boost Bone Density.
- Have Antibacterial Properties.
- May Boost Digestive Health

2. CHILLI

SCIENTIFIC NAME: *Capsicum frutescens*



Chilli is considered as one of the most important commercial spice crops and is widely used universal spice, named as wonder spice. Different varieties are cultivated for varied uses like vegetable, pickles, spice and condiments.

What is the duration of chili crop?

- The crop starts yielding green chillis 2 months after transplanting and dry chillies 90 days after transplanting.
- The crop lasts for 5-6 months after transplanting depending upon duration of the variety.

Is chilli farming profitable?

- It's spicy farming and good profits are possible with proper chilli farming techniques.

Where does chilli grow best?

- Chillies need a warm, sunny spot for the best results and the hottest chillies. Ideally, grow them in a greenhouse or raise them in pots on a south-facing patio or windowsill
- A: From sowing, chilli plants vary from about 80 to 120 days to fruit being ready. If you are using the unripe (green) fruit, this range will be reduced.
- Chillies can be grown under tropical and sub-tropical climates.
- It can be cultivated upto an altitude of 2000m.
- A warm humid climate favours growth while warm and dry weather enhances fruit maturity.

How many months does it take to grow chillies?

- Some can produce ripe fruit in 60 days from sowing and others take as long as 120 days. How many times chilli can be harvested?
- Harvesting and yield: The crop starts yielding green chillies 2 months after transplanting and dry chillies 90 days after transplanting.
- The crop lasts for 5–6 months after transplanting depending upon duration of the variety.

How profitable is chilli farming?

Net profit in 1 acre green Chilli farming:

Hence the farmer can earn **\$823.52 to \$941.17** from once acre green Chilli Farming only if he undergoes proper care and management within the 1 acre green Chilli farm for about 5 months

Chilli uses and Benifits

- Can Promote Weight Loss.
- May Fight Cancer.
- May Be Natural Pain Relievers.
- Can Help Prevent Stomach Ulcers.
- Help Fight Infections.
- May Keep Your Heart Healthy.
- Possible Side Effects and Precautions.

3. TOMATO

SCIENTIFIC NAME: Solanum lycopersicum



- Tomatoes are low in calories and provide important nutrients like vitamin C and potassium
- It originated in western South America, and domestication is thought to have occurred in Central America.
- Because of its importance as food, tomato has been bred to improve productivity, fruit quality, and resistance to biotic and abiotic stresses

Are tomatoes a profitable crop?

Tomato production can be highly profitable, but you need to choose your tomato type and cultivar with care, says Bill Kerr. Saladette tomatoes are slowly gaining ground. Tomatoes, like potatoes, can offer the farmer handsome rewards.

How many days tomato take to grow?

- Tomatoes take 60 days to more than 100 days to harvest, depending on the variety (see more about varieties below).
- Due to their relatively long growing season requirements (and late planting date), most gardeners plant small “starter plants” or transplants instead of seeds after the weather has warmed up in spring.

What is the best month to plant tomatoes?

Tomatoes are warm weather plants which need plenty of sun to thrive and grow best at temperatures between 70 and 75°F (21 and 24°C). Seeds are best sown under cover in March and April ready for harvesting from July to September.

Benefits of Tomato.

- Getting more tomatoes into your diet may make you less likely to have a stroke, which is when blood flow gets cut off to a part of your brain.
- Studies suggest that they may ease inflammation, boost your immune system, lower your cholesterol levels, and keep your blood from clotting.
- Regulates blood pressure.
- Healthy skin.
- Prevents eye problems.
- Anti-inflammatory action.
- Bone Health.
- Helps prevent some types of cancer.

Cost and profit

- Total earning from 1 acre tomato cultivation is \$1764.70
- Therefore, the farmer can earn an average of \$1411.76 from 1 acre tomato cultivation or simply \$352.94 per month for 4 months
- It's one of the most commonly grown food producing plants in backyard gardens today. Tomato plants have a very high return on investment (ROI).

Are tomatoes a profitable crop?

- Tomato production can be highly profitable, but you need to choose your tomato type and cultivar with care, says Bill Kerr. Saladette tomatoes are slowly gaining ground.
- Tomatoes, like potatoes, can offer the farmer handsome rewards.

LIVESTOCK

1. CHICKEN

2. GOAT

3. FISH

4. CATTLE



1. CHICKEN



- It requires less investment compared to rearing other livestock.
- Poultry farming is a continuous source of income. Broilers' intake of feed is comparatively very low while it produces the maximum possible amount of food for us. It gives a rapid return on investment.
- Globally, poultry production provides high-quality, affordable animal protein, a high chance for investment, job opportunities, and a source of income for smallholders worldwide

Country Chickens

- These chickens are not the regular white-feathered ones seen in cages at meat shops.

Country chickens have feathers in different colours, and mostly graze in the open.

- The meat is slightly tougher than white poultry meat, but when cooked, is juicy and soaks in spices beautifully

The advantages of country chicken farming are as below

- Low initial investments clubbed with higher economic returns.
- Country chicken farm can be started with just two birds and gradually increased to a flock.
- Owing to the high demand of local chicken, the birds and the egg produced by them can be sold in the local market irrespective of the season.
- Leftover feed, grains and various agricultural by-products can be used as feed for the birds. In other words, the feed cost is negligible.
- Country chicken or 'desi murgi' and brown egg variety has a higher demand than other breeds

How can we improve chicken farming?

1. Feeding. Layers should be fed with adequate layers' mash and broilers with growers' mash.
2. Lighting. The duration of exposure to light should also be moderated.
4. Timely vaccination.
5. Breeding.
6. Record keeping.
7. Handling of birds.

How much time it takes to grow a chicken?

Conventionally bred broiler chickens: Most of the chicken available in the stores today comes from flocks that grow to market weight in about 48 days on average, using fewer natural resources – therefore more sustainably.

What is the profit on chicken farm?

- If you start layer farming from a small level i.e. 1500 chickens, then you can earn \$588.235 to \$1176.47 every month.
- For this, first of all, you to find a place for poultry farming. About \$1176-\$2352.94 will have to be spent on cage & equipment. A budget of \$588.235 will have to be kept for buying the chickens.
- sale value/ income from the chicken @ Rs 90/kg: \$25411.76. The total profit on the investment is around: \$5223.52 (annually). The sale of other by-products of the farms like manure and gunny bags can bring in an extra income of around \$235.29

What are the best things to feed chickens?

- Select fruits, vegetables and grains will keep chickens happy and ensure they are receiving a nutritionally balanced diet.
- Good choices include leafy greens, cooked beans, corn, non-sugary cereals and grains, berries, apples and most other fruits and vegetables.

2.GOAT



The fact of the matter is that farming meat goats can be and is very profitable.

- Goat is a multi-functional animal and plays a significant role in the economy and nutrition of landless, small and marginal farmers in the country
- Goat rearing is an enterprise which has been practiced by a large section of population in rural area. Goats are among the main meat-producing animals in India and has huge domestic demand.
- Goat rearing under intensive and semi-intensive system for commercial production has been gaining momentum
- A number of commercial goat farms have been established in different regions of the country.
- Goat farming business is an established and profitable business in the state of Karnataka. Goats are modest-sized livestock creatures and it is very simple to raise some goats.
- Remembering that goats can be worth up to \$20 per pound on average

Is Goat farming profitable in Karnataka?

- Goat farming business is an established and profitable business in the state of Karnataka.
- Goats are modest-sized livestock creatures and it is very simple to raise some goats

How much profitable is goat farming?

- In goat farming, the profit margin is 50%. If you cultivate your goat feed on the farm, you may raise your profit margin by up to 80%.
- A goat farmer can earn \$8 to \$12 per gallon.
- The most profitable dairy goat breed is the Saanen, in which you can profit up to \$36 per day. So, if you're asking how much money can you make raising goats, selling their milk can give you a good profit.

Cost and profit

Goat farming requires low input cost and is a profitable business option for the unemployed youth, women, ex-servicemen etc

What is the best feeding for goats?

- Feeds that are high in protein include fishmeal, soya bean meal, cotton seed oil cake meal and brewers' grains.
- Pasture grass, plant leaves, grass and alfalfa long-stemmed forage or pellets, and grain are great sources of calories for goats

Water

Good quality fresh water for animal drinking and for the cleaning, washing etc. is available.

Labour

Honest, economic and regular supplies of labours are available.

Veterinary Aid

Veterinary aid/ breeding centers facilities are availability near the proposed goat farm

Expense Norms of Goat Farming Project Plan

In the expenses, the construction cost included along with the space where the goats will reside.

- Each Goat needs 10 square feet of space, and each he-goat needs 15 square feet of space.
- The lamb needs 4 square feet place.
- You have to include labour charges for the farm.

Goat Farming Project Working Capital

Working Capital includes the operational cost of any project, and here we are with the entire operating expenses of the goat farming business.

- The labour cost in this report is \$58.82 per month.
- The insurance cost of the goats is equal to 5% of the total cost of purchasing goats.
- The cost of producing food for goats is \$58.82 per acre.
- It includes feeding, Vaccination, medicines and electricity charges, etc.

How much profitable is goat farming?

- In goat farming, the profit margin is 50%.
- If you cultivate your goat feed on the farm, you may raise your profit margin by up to 80%
- The investment is low at the initial stages and farm is also set up with low investment.
- Apart from meat, goat milk remains in high demand.
- There is huge scope in value addition and processing of goat milk and meat which can further enhance income

3. FISH

Fish farming is the fastest-growing food production segment in the world. It is the process of raising aquatic organisms commercially in a controlled or semi-controlled environment to increase productivity aquaculture, also called fish farming, fish culture, or mariculture, the propagation and husbandry of aquatic plants, animals, and other organisms for commercial, recreational, and scientific purposes.

Type of fish farming

- Tilapia Fish Farming
- Catfish Farming
- Crab Farming
- Carp Fish Farming
- Salmon Fish Farming
- Open Net Pens



Advantages of Fish Farming

- The farmed fish provides high quality protein for human consumption.
- Commercial fish farming is considered an economically profitable business venture.
- Fish farming can be integrated into the existing farm to create additional income and improve its water management. The farmers can select the fish species with desired characteristics to raise.
- This business ensures quick returns on your investment. The fish consumption rate is increasing every year.

How much profitable is Fish farming?

Commercial fish farming is considered an economically profitable business venture. There are so many types of fast-growing species available. So, this business ensures quick returns on your investment. The fish consumption rate is increasing every year.

Six tips to make your fish farm more environmentally sustainable

- Choose the right species.
- Select a suitable farm site.
- Farm design and layout.
- Manage feeding practices.
- Minimise chemicals and veterinary drugs.
- Plant native vegetation.

Advantage of Fish Farming

- The farmed fish provides high quality protein for human consumption.
- Fish farming can be integrated into the existing farm to create additional income and improve its water management.
- The farmers can select the fish species with desired characteristics to raise.

What is the size of fish market?

The global fish farming market size was valued at \$285,359.7 million in 2019, and is projected to reach \$378,005.5 million by 2027.

4. CATTLE



Cattle farming involves the rearing and management of two types of animals- one group for food requirements like milk and another for labour purposes like ploughing, irrigation, etc.

Why are cattle important to the economy?

- Cattle provide draught power for tillage, manure and transport as inputs to crop production.
- They consume stover and other crop wastes as inputs to livestock production.
- Cows usually provide milk for the cattle-owning household and sometimes also for local sale.

What are the two types of cattle farming?

Cattle Farming is conducted for two main intentions:

1. Dairy: Animals that are reared for extraction of milk. Some examples of dairy or milch breeds are cows, goats, buffalos, etc.
2. Draught: Animals deployed in various agricultural as well as transportation tasks such as irrigation, carting, etc.

Types of Cattle Farming

1. Intensive Cattle Farming- In this system, the selection of breeds is made for different types of production. It is both labour and capital-intensive.

2.Semi-Intensive Farming- Indus livestock farming animals are fed and housed but also are allowed to move or graze around the farm within an enclosed area of a farm.

3. Extensive Livestock Farming- it is usually carried out on large areas of land that pastures and Mountains are Meadows. Animals Graze on the natural resources of various areas.

4. Nomadic Livestock Farming- In this system, the animals are taken to different lands to eat various foods and resources. This is also known as semi-nomadic or nomadic livestock farming.

What are the main uses of cattle?

Cattle are domesticated bovine farm animals raised for their meat, milk, or hides or for draft purposes. It's smart to invest now while the financial market will yield a higher rate of return than your cost of capital.

What are benefits of cattle farming?

- It is the best source of employment. Animals that provide milk can be raised and managed with a good income to support a family.
- Animals that help in labor such as draught animals are used in agricultural work. The waste generated from these animals can be used as natural manure to maintain soil fertility.

Benefits of cattle farming:

- It is the best source of employment.
- Animals that provides milk can be raised and managed with a good income to support a family.
- Animals That Help In Such As Draught Animals Are Used In Agricultural Work.
- The Waste Generated Form These Animals can Be Used As Natural Manure To Maintain Soil Fertility.

Are cattle profitable?

The \$199/cow/year gross return over cash costs and cow depreciation does not look quite as good now. After adjusting for these other costs, the net return (all costs included) is -\$151 per cow per year, or -\$6,040 for the 40-cow farm

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