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Snail Farming: Boost to Agriculture Export

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Humans have been consuming snails for thousands of years. They are very high in proteins, iron and water but are low in Fat. Snail consumption is popular in various countries around the world. Presently, global snail farming or heliciculture industry achieves sales of greater than 12 billion US dollars annually.


History of snails as food

According to different archaeological surveys and evidences, it is known that ancient humans ate snails as piles of empty snail shells have been recovered from many pre-historic sites. A study revealed that snails used to be an extra food source for Palaeolithic humans in spain. For over 30,000 years, the Iberus aloneness snail has played a role in the gastronomy of Spain. The Benidorm area of Spain is believed to be the first recorded place where humans consumed snails. Around 10,000 years later, people along the Mediterranean coast of Northern Africa, Italy, France, Greece and the Middle East were eating snails.

Major snail consuming countries

The countries in which snail is used in food and various stuffs like, Abalone is a common feature of Chinese cuisine and are called Bao Yu in mandarin. There is other type of snails eaten in China, too and it's not just the Chinese. The Kiwis, Brits, Americans, and plenty of other people eat it. It is known as Paua in New Zealand and Ormer in the UK.

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In the Bahamas, conch is eaten raw and is often viewed as an aphrodisiac. In Vietnam, snails are a common pastime food. There are stalls set up that feature a wide variety of snails and apple snails are commonly eaten. In Japan, Turbo snails, whelks and abalone are eaten as sashimi. The Romans popularized snail eating in Europe and it is now a feature of Spanish, Italian, Portuguese, Greek and of course French cuisine.

In Korea, whelks are eaten and there is also the dalseulgi (*Semisulcospira libertina*) and bladder moon snail which are commonly eaten. In Africa, the Giant African Land Snail (*Achatina fulica*) is eaten and it is a staple of Nigerian cuisine. In the USA, there are conch fritters, boiled periwinkles and a variety of water snails available on the seafood market. Conch were commonly eaten by the aboriginal Americans and in some places, the tribes have left their marks by leaving piles of shells.

Nutritional value and health benefits of Snails

A 3-ounce serving of cooked snails delivers 76 calories with No Cholestrol or sugar as well as 1/3rd of daily Vitamin-E requirement of an adult. It promotes the production of red blood cells that benefits muscle and tissue growth. Additionally, it can provide one half of daily recommended selenium intake. Selenium is an antioxidant mineral that helps in preventing heart diseases and thyroid. Snails also have high mineral content. A single serving of escargot provides 1/6th of daily requirement of iron, 10% of potassium, 1/3rd of phosphorous and 2/3rd of magnesium. Snails also contain a chemical named Tryptophan which is healthy for Brain and is also a good mood booster.

Climate and soil required for proper snail cultivation

Snails flourish in mild climate (55-77°F) and high humidity about 75% - 95%. Although most varieties of snails are tolerant to climate but for cultivation purpose high yield is necessary which can be obtained only by providing favourable conditions for their growth and production. If temperature falls below 7°C the snails hibernate. Below 12°C the snails are inactive and blow 10 growth stops. Temperature above 27°C or too much dry conditions result in snails to aestivate. Wind is bad for snails as it speeds up moisture loss and snails must retain moisture to survive.

Snails thrive in damp and waterlogged conditions and thus well-drained soil is required. Various researches indicated that 80% of humidity and 80% of water carrying capacity is the

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most favourable condition. Mist spraying devices and sprayers may be used to maintain the humidity and temperature. Also if the system contains alive vegetation the leaves should be wet. The soil composition should consist of neither too much clay nor too much sand as hard soil is difficult for them to dig and sand has very big pore spaces hence the water is drained excessively. The presence of 20-40% of organic matter stimulates higher growth and cation exchange capacity of calcium as well as magnesium increases. The pH must be around 7 neither acidic nor basic. There should be adequate amount of calcium in the soil so that the primary constituent of shell demand can be completed and growth is not retarded. Addition of limestone to the soil can greatly improvise the calcium content of the soil. Calcium may also be set in tough or feeding fish so that snails can feed into it. Moreover, addition of polyacrylamide to the soil also can improvise soil health.

Soil mix may contain peat, clay, compost and CaCo3

The soil may be provided with leaf mould at 7 pH.

Market value in India and export

There are different varieties of snails which are widely consumed by peoples in different parts of India.The north-east states such as ArunachalaPradesh, Mizoram, Nagaland, Sikkim are consumers of snails. Moreover, peoples from parts of west Bengal, Odisha and many restaurants prefer to serve their guests with delicious snail cuisine.Indian Economy is agricultural economy, countries 70% of the population is dependent on Agriculture.Export market is very big for snail in foreign markets. It can greatly contribute to the income of country. There is a great potential for export market in snail cultivation sector.

Conclusion

Snail cultivation does not require any special arrangement hence is cost-friendly, it also does not require any special care and feed though, it provides a good financial support to the farmer. It can be a good side business for the farmers. Snail has also wide range of nutritional value hence it is good optional supplement for people. It has great potential for export market as many Asian, African, American and European countries have huge number of snail consumers. Indian farmers can export their cultivated variety of snail and can get good amount of money and also it will contribute to the country's GDP.