

How to Start Rice Farming and Processing Business

**(Paddy Milling, Parboiled Rice, Basmati
Rice, Rice Milling, Breakfast Cereals and
Infant Foods)**



Introduction

Rice is the seed of the grass species *Oryza sativa* (Asian rice) or *Oryza glaberrima* (African rice). As a cereal grain, it is the most widely consumed staple food for a large part of the world's human population, especially in Asia. It is the agricultural commodity with the third-highest worldwide production, after sugarcane and maize.

Seed is a living product that must be grown, harvested, and processed correctly in order to realize the yield potential of any rice variety. Good quality seed can increase yields by 5-20%.



Using good seed leads to lower seeding rates, higher crop emergence, reduced replanting, more uniform plant stands, and more vigorous early crop growth. Before rice can be planted, the soil should be in the best physical condition for crop growth and the soil surface is level. Land preparation involves plowing and harrowing to 'till' or dig-up, mix and level the soil.

Prior to planting rice, rice growers must ensure their farm meets the strict environmental guidelines for rice production. Once approved, many farmers design a whole farm plan to assist in managing the efficient use of natural resources and to determine the most suitable rotations.



Many rice growers have already invested in designing whole farm plans.

Planting the crop on time will help produce a fast-growing, uniform crop that will have higher yields and will be better able to compete with weeds and pests. The best time to plant depends on the locality, variety, water availability, and the best harvest time. Rice can either be transplanted from a nursery or direct-seeded in the field.



The following are the health benefits of Rice:

- 1. Rice is a good source of energy**
- 2. Rice is a cholesterol free food.**
- 3. Rice helps in blood Pressure management.**
- 4. Rice helps in cancer prevention.**
- 5. Rice helps in preventing skin problems**
- 6. Rice can also help in preventing chronic constipation.**
- 7. Rice is a good source of niacin, Vitamin D, calcium, fiber, iron, thiamine and riboflavin.**



As a main source of nourishment for over half the world's population, rice is by far one of the most important commercial food crops. Its annual yield worldwide is approximately 535 million tons. Fifty countries produce rice, with China and India supporting 50% of total production. Southeast Asian countries separately support an annual production rate of 9-23 million metric tons of which they export very little. Collectively, they are termed the Rice Bowl. Over 300 million acres of Asian land is used for growing rice. Rice production is so important to Asian cultures that oftentimes the word for rice in a particular Asian language also means food itself.



Rice can be cultivated by different methods based on the type of region. But in India, the traditional methods are still in use for harvesting rice. In India there are a number of rice varieties grown and consumed; however the different varieties could be broadly grouped under two categories, namely basmati and non-basmati. India's market year 2016-17 rice production prospects will emerge by the end of August after planting is over, but assuming normal weather conditions, rice production is forecast to be 105 million tonnes harvested from 44 million hectares. This compares with 103.5 million tonnes harvested from 43.46 million hectares in the 2015-16 market year. Indian rice exports have steadied since the beginning of calendar year 2016 on recovery in export demand for Basmati rice and non-Basmati rice. According to the provisional official statistics, rice exports for the first five months of calendar year 2016 were 4.4 million tonnes.



Rice is the staple food of over half the world population. Rice is normally grown as an annual plant, although in tropical areas it can survive as a perennial crop and can produce a ratoon crop for up to 30 years. The rice plant can grow to 1 to 1.8 m tall, occasionally more depending on the variety and soil fertility. Since its origin, the spread of rice cultivation is extensive and rice is now being grown wherever water supply is adequate and ambient temperature are suitable. The rice grain is covered with a woody husk or hull, which is indigestible and is to be removed in the first step during processing for making the rice edible.



Rice cultivation is well suited to countries and regions with low labor costs and high rainfall, as it is labor intensive to cultivate and requires ample water. Rice can be grown practically anywhere, even on a steep hill or mountain. The traditional method for cultivating rice is flooding the fields while, or after, setting the young seedlings. This simple method requires sound planning and servicing of the water damming and channeling, but reduces the growth of less robust weed and pest plants that have no submerged growth state, and deters vermin. While flooding is not mandatory for the cultivation of rice, all other methods of irrigation require higher effort in weed and pest control during growth periods and a different approach for fertilizing the soil.



Drying is an essential step in the processing and preservation of paddy; it is the process that reduces grain moisture content to a safe level for storage. Milling is a crucial step in post production of rice. The basic objective of a rice milling system is to remove the husk and the bran layers, and produce an edible, white rice kernel that is sufficiently milled and free of impurities. India is the second largest rice producing country of the world after China. India also grows some of the finest quality aromatic rice of which basmati is the most high quality rice.

This book basically deals with history, origin and antiquity of rice, seed rice and seed production, harvest and post harvest operations, water management practices for rice, diseases and pests of rice and their control, application of biotechnology in aromatic rice improvement, traditional methods of parboiling, modernization of parboiling process, solvent extractive rice milling, general types of quick cooking rice processes, dry milled rice products in brewing, breakfast cereals, rice flakes, puffed rice, rice in multi grain cereals etc.

The present book contains cultivation and processing of rice in various ways. The book is very resourceful for the entrepreneurs, technocrats, research scholars etc.

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Thorough analysis of the project



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