

Cashew Business

A Profitable Return on Investment

(Cashew Plantation, Production & Processing and its By-Products, Cashew Nut Shell Liquid (CNSL), Cashew Nut, Cashew Kernels)

Introduction

The cashew tree (*Anacardium occidentale*) is a tropical evergreen tree that produces the cashew seed and the cashew apple. The cashew seed, often simply called a cashew, is widely consumed. It is eaten on its own, used in recipes, or processed into cashew cheese or cashew butter. The cashew apple is a light reddish to yellow fruit, whose pulp can be processed into a sweet, astringent fruit drink or distilled into liquor.



The shell of the cashew nut yields derivatives that can be used in many applications from lubricants to paints, and other parts of the tree have traditionally been used for snake-bites and other folk remedies. Health Benefits of the Cashew Nut: Prevents Cancer, Healthy Heart, Lowers High Blood Pressure, Healthy Bones, helps in Weight Loss Anti-oxidants etc.

Cashew shell oil extracted from the shells is caustic and causes burns on the skin. The mucous membranes of the mouth and throat are severely affected when it comes into contact with shell oil or the irritating fumes emitted during roasting. The oily shell liquid has many uses.

Climatic requirements

- Cashew trees are genuinely tropical and very frost sensitive.
- The trees grow in a wide spectrum of climatic regions between the 25 °N and S latitudes.
- Although the cashew can withstand high temperatures, a monthly mean of 25 °C is regarded as optimal.
- Yearly rainfall of 1 000 mm is sufficient for production but 1 500 to 2 000 mm can be regarded as optimal.

- The cashew tree has a well-developed root system and can tolerate drought conditions. Rain during the flowering season causes flower abortion due to anthracnose and mildew.
- During harvesting, while nuts are on the ground, rain and overcast weather causes the nuts to rot or start germinating.
- Nuts germinate within 4 days when lying on wet soil.

Now a day's horticultural commodities getting export from India, among them cashew retain top position. For cashew cultivation certain parameters such as characteristics of cashew, weather condition, geographical location, propagation - layering, budding and grafting, nature of soil are the main to improve and increase the overall productivity of cashew with suitable planning of efficient water management. This book includes organic farming method of cashew. Three main cashew products are traded on the international market - raw nuts, cashew kernels and cashew nut shell liquid (CNSL). A fourth product - the cashew apple is generally processed and consumed locally.



Cashew nut shell liquid is a by-product of the cashew industry. The nut has a shell of about 1/8 inch thickness inside which is a soft honeycomb structure containing a dark reddish brown viscous liquid. It is called the cashew nut shell liquid, which is the pericarp fluid of the cashew nut.

CNSL has innumerable applications, such as friction linings, paints, laminating resins, rubber compounding resins, cashew cements, polyurethane based polymers, surfactants, epoxy resins, foundry chemicals, and intermediates for chemical industry. It offers much scope and varied opportunities for the development of other tailor-made polymers.

India has the largest area under cashew and is confined mainly to the peninsular areas. It is grown in Kerala, Karnataka, Goa and Maharashtra along the west coast and Tamil Nadu, Andhra Pradesh, Orissa and West Bengal along the east coast. The highest productivity is observed in Kerala and Maharashtra with over one ton per ha. India is also one of the largest cashew consuming countries in the world.

Cashew is exported from India in several forms, such as cashew kernels, broken and whole; raw cashew nuts; roasted cashew nuts and cashew nut shell liquid.

The export of cashew kernels from India has grown at the rate of 3.6 per cent per annum during the last ten years as compared to the annual growth rate of 4.73 per cent of the world export. Consumption of cashew in the world continues to rise and is expected to continue with positive health reports and beneficial diets.

The demand for cashew nut is increasing rapidly. India is leading producer, processor, consumer and exporter of cashew nuts in the world. It is one of the important agricultural commodities exported from India to many countries in the world. About two third of cashew produced in the country is consumed locally. India accounts for 65 percent of total cashew nut exports in the world and export cashew to more than 60 countries.

This book is not only confined to the different methods of cashew processing but also describe about by-products obtained from cashew. The traditional method of cashew processing through which we get CNSL(Cashew Nut Shell Liquid),the major source of Cardanol. We also came to know about production of CNSL derivatives, polymerization of CNSL, rubber like elasticity products, styrene product of CNSL, multifunctional alcohol obtained from CNSL and lots of other information.

Cardanol is a phenolic lipid which is the byproduct of cashew nut processing. It has several uses and applications in chemistry, chemical industries, additives industries and fuel industries for low sulphur diesel fuel. This book contains the purification process of CNSL for isolation of cardanol, evaluation of copperised CNSL and neem oil as wood preservatives. It also provides a wide idea to their readers about its nutritional value, commercial exploitation, hygiene and safety issues, packaging and preservation, uses, manufacturers and suppliers of machinery of this process.

This book also engaged in quality control system, design and development of soft nano materials from CNSL cashew to play a vital role in nano technology. It covers all the area concerned in this field and presents a crystal clear overview on the process and its by-product from all possible aspects.

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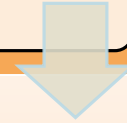


Our Approach

Requirement collection



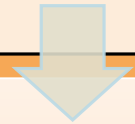
Thorough analysis of the project



Economic feasibility study of the Project



Market potential survey/research



Report Compilation

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- *Leather And Leather Based Projects*
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- *Minerals And Minerals*
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- *Organic Farming, Neem Products Etc.*

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- *Printing And Packaging*
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- *Soaps And Detergents*
- *Stationary Products*
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