

Technology details:

Name of the technology	Coconut Husk Remover Machine
Year (s) of development	2010-12
Technology details (300-350 words)	Coconut farming is a huge industry in Andhra Pradesh, especially in the districts of East Godavari and West Godavari. Most of the Coconuts produced are sent out of state to Mumbai for export. Coconut Husk removing has become a pain point for the Coconut farmers and traders for the following reasons. Currently Coconut Husk removal is a tedious manual labor-oriented job. In 2009, for removing the Husk the workers used to charge Rs0.20-0.25 per coconut. But due to the increase in the labor fares in the market currently the workers are demanding Rs0.40-0.50 per coconut. The current practice of using manual labour for Husk removal is time consuming. Currently it takes 25-30 seconds for removing the husk on one coconut. Considering breaks and worker fatigue only 800-1000 coconut can be peeled by a person in a day. Currently workers use a crowbar fixed in ground to peel the coconut. This operation requires significant physical strength and takes heavy toll on the body. "Coconut Husk Remover" is an innovative new product developed to address the problems of Coconut farmers and distributors. The machine reduces the cost of coconut peeling by 70% while increasing the speed of the operation by 100% and eliminating Drudgery. Coconut Husk Remover: A new age solution for Coconut Farmers, Traders and Workers is powered by a 1 HP single phase motor. The machine employs custom designed roller set on which the Coconut is mounted. A Spring-loaded fixture is provided on top of the roller to hold the coconut in place on the rollers. Pedal operated switch is provided to save electricity. The operator places the coconut on the rollers and switches the machine on. One roller rotates the coconut while the other provides the cutting action to remove the husk. The spring-loaded fixture is operated to hold the coconut in place on the rollers and prevent it from slipping. • The machine can be operated by a semi-skilled worker • The cost per peeling one coconut comes down from Rs 0.45 to Rs 0.13, a 70% reduction. • The machine takes 15 seconds to peel a coconut. • In an 8 hour shift the machine can be used to peel at least 1600 coconuts compared to 800 coconuts per day manually. • Cost of the machine is Rs 75,000/-
Pictures (High resolution)	
Impact of the technology	In manual peeling process, 1000 coconuts can be peeled by traditional methods in a span of 8 hours by a single skilled worker for an amount of Rs. 500/-. With the help of coconut husk remover one can peel around 2,000 coconuts in a span of 8 hours and can earn with a net income of Rs. 1,000/-. Even women can take up this activity as a homestead activity.
Publications /Commercialization	Annadata, Popular articles. This machine was developed in coordination with RAKI INDUSTRIES, Kakinada, and Bharatiya Kisan Sangha, Ambajipeta and supplied 10 machines to Bharatiya Kisan Sangha, Ambajipeta.
Investigators /Developers	R. Sudhakar, Dr. C. Chandra Sekhar Rao, Dr. V. Krishna Murthy