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Economic Analysis of Coconut Shell Pelletizing

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Coconut, as we all know, is an economic agricultural products commonly seen in tropical countries. Its edible round fruit, also named coconut, has long been used in food industries and coconut oil industry. Coconut shell, the discarded by-product after the coconut meal is dislodged, will be collected for biomass purpose of coconut shell

pellets producing, coconut shell charcoals and activated carbon. The food being dried with coconut shell will also come along with the special coconut smell.

Species	Moisture	Ash Content	Calorific Value
Coconut Shell	15%	4-5%	3500-4000kcal/kg
Coconut Shell Pellet	5-7%	7-9%	6500-8000kcal/kg

Note:performance comparison of coconut shell and coconut shell pellets.

Market Condition of Raw Coconut Shell for Pellets Production

Requiring highly for temperature and water, coconut can only grow in tropical areas. The Philippines, Indonesia, followed by India, Brazil, Sri Lanka, Thailand, Mexico, Vietnam, Papua New Guinea, Malaysia and Tanzania are the top ten countries producing most of the coconuts. Most of coconut trees are growing dispersedly, for example, in India 98% of coconut trees are owning by small farmers. This may add difficulties for collecting them. We believe that coconut shell is quite suitable for processing biofuel pellets. With compact structure, heavy density and proper fiber content, it will perform well in burning and biomass pelletizing. Coconut shell price varies with the place of origin and quality of the shells, Currently, from around 80US dollars to 350US dollars.

Country	Production(MT)	Country	Production(MT)
Philippines	19,500,000	Mexico	1,246,400
Indonesia	15,540,000	Vietnam	1,086,000
India	10,824,100	Papua New Guinea	677,000
Brazil	2,759,044	Malaysia	555,120
Sri Lanka	2,200,000	Tanzania	370,000
Thailand	1,721,640	World	54,716,444

Choose a Suitable Factory Site for Coconut Pellet Plant

To start a coconut shell pellet factory, the following thing you should decide is the site. As biomass pelletizing for renewable energy is just rising up in recent two years, there are quite a lot wavy factors in its market. Then choosing a suitable site will really mean much. According to our experience, you should put these three rules into your consideration: places with rich raw materials, convenient traffic and potential market consumption ability.

Places with Rich Raw Materials

With a steady stream of raw coconut shells, your pellet mill will be able to function to

make profits. If you building a coconut shell factory in coconut planting areas, you cost for collecting and transporting the raw coconut shells will be reduced.

Places with Convenient Traffic

Convenient traffic will allow your raw materials in and your coconut pellets out. The bad traffic condition will influence production efficiency of your business.

Places with Potential Market Consumption Ability

It would be better if your coconut shell pellets can be digested nearby. Thus you will never need to transport them to faraway market. Your products consumption cycle will be shortened.



Coconut Shell Pellet Plant Building

1. Apply for a production license.
2. Plan your coconut shell pellet plant in accordance with the budget.
3. Purchase coconut shell pellet mill and auxiliary equipment for the pellet plant from a reliable pellet machine manufacturer.
4. Do maintenance for you equipment regularly.

How Will You Profit from Coconut Shell Pellets Production

Let's do a rough calculation for your coconut shell pellets production to show how will you profit from it. Commonly the price for a tonne of coconut shell is around 150 dollars. The electricity consumption for processing a tonne of coconut shell pellets will cost about 50 dollars. For the workers you pay about 50 dollars for per tonne of pellets. Equipment wear about 20 dollars. Then the total cost for processing a tonne of coconut shell pellets is around 270 dollars. The price for a tonne of coconut shell pellets is about 600 dollars. If your pellet line is with a capacity of 1 T/H and works 8 hours per day, then the net profit it make is 2640 dollars. Then it will make 79200 dollars for you every month. After a year, you will profit 950400 dollars from the coconut shell pellet plant.