

# S70 in Coconut Oil Plant



Handling Copra Bags



Copra Laid Out in Yard



Collecting Dried Copra



Stacking Copra in Oil Plant

## THE GOLDEN LIQUID

Coconut oil—often referred to as “the golden liquid”—has earned global acclaim for its wide-ranging uses, from cooking and skincare to medicinal and industrial applications. However, behind its shimmering appearance lies a labor-intensive, multi-stage production process that demands precision, consistency, and efficient resource management.

As the industry evolves, coconut oil plants are embracing mechanization to streamline operations, cut costs, and boost productivity. One such innovation making a significant impact is the **Bobcat S70 Skid-Steer Loader**. Here's a comprehensive look at the coconut oil extraction process and how the S70 is redefining efficiency on the factory floor.

## COCONUT OIL PRODUCTION PROCESS: STEP-BY-STEP

### Coconut Oil Production Process: Step-by-Step

#### 1. Raw Material Handling

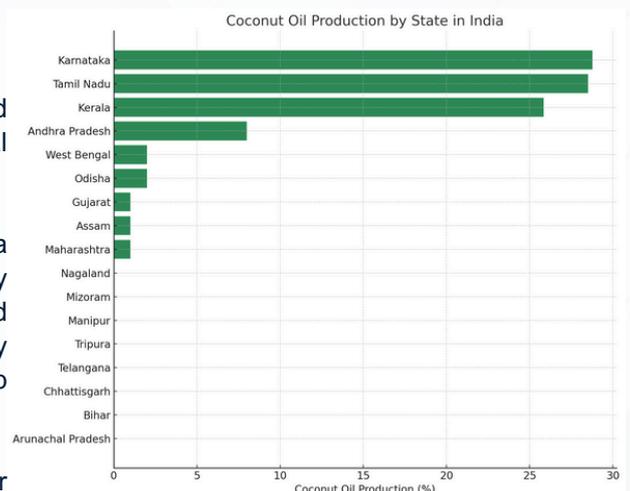
Coconuts, typically in copra form, arrive in ginny bags—preferred over plastic ones due to their lower moisture content, which is crucial for maintaining quality and shelf life.

#### 2. Cleaning, Drying & Stacking

After removing husk fragments and debris, the copra is laid out in a drying yard. Up to 150 bags of copra can be sun-dried simultaneously for around 4 hours per batch. Once dried, the copra is collected and stacked indoors for further processing. This phase, traditionally requiring a minimum of 6 workers and around 3 hours for cleanup and collection, is both labor-intensive and time-consuming.

#### 3. Conveying and Cooking

The dried copra is transported via a conveyor belt into a heat cooker by workers, initiating moisture reduction. It then moves through a



Data Source: Coconut Development Board - INDIA



Heat Cooker



Copra Expeller



Primary Filter



Oil Storage Tank

conveyor into a steam cooker for final drying—tailored to specific customer requirements. This step is especially crucial for edible-grade oil, where Free Fatty Acids (FFA) and oil color must be tightly controlled.

#### 4. Crushing and Extraction

Once adequately dried, the copra is crushed using primary and secondary expellers, separating the oil from the residual cake. The remaining cake proceeds to solvent extraction, ensuring maximum oil recovery. The solid byproduct is repurposed as cattle feed. The extracted oil—both edible and non-edible—is collected in separate tanks and filtered for further refinement.

#### 5. Filtration and Refining

Filtered oil is stored in dedicated tanks and moved to the refinery, where it is processed as per customer demand:

- Edible oil is refined for uses such as cooking and hair oil production.
- Non-edible oil is directed for use in paint, soap, and other industrial products.

### **THE BOBCAT S70 SKID STEER LOADER: A COMPACT POWERHOUSE IN COCONUT OIL PLANTS**

The Bobcat S70 is a game-changer in coconut oil facilities, particularly in the initial stages of material handling, loading, and yard maintenance. Designed for confined areas and equipped with versatile attachments, the S70 delivers high performance while minimizing space usage and manpower efforts.

#### **KEY TASKS SEAMLESSLY MANAGED BY THE BOBCAT S70 IN A COCONUT OIL PLANT:**

##### 1. Handling Ginny Bags

The S70 efficiently moves heavy ginny bags of raw copra, drastically reducing manual effort and speeding up initial material handling.

##### 2. Collecting & Stacking Dried Copra

In the post-drying stage, the S70 efficiently collects and stacks copra uniformly, significantly reducing manpower from 6 people to 1, and cutting the time required from three hours to just 45–50 minutes. Additionally, the use of the S70



increases the cycle efficiency from 2 cycles to 4–6 cycles, compared to the previous worker-dependent method.

### 3. Cleaning the Drying Yard

Fitted with a sweeper attachment, the S70 can rapidly clear debris from the yard—a task that would otherwise require hours of manual labour.

### 4. Conveyor Feeding Support

While conveyor belts handle bulk loading, the S70 ensures a steady and consistent supply of dried copra to the conveyor input during night operations, maintaining continuous workflow.

## ADVANTAGES OF USING BOBCAT S70 IN A COCONUT OIL PLANT:



**SIGNIFICANT TIME SAVINGS**



**EFFICIENT MATERIAL HANDLING**



**IMPROVED PRODUCTIVITY**



**CONFINED AREA OPERATION**



**REDUCED OPERATIONAL COSTS**



**VERSATILE WITH ATTACHMENTS**



**REDUCED LABOUR EFFORTS**

The Bobcat S70 is not merely a tool; it is a strategic asset transforming how coconut oil is produced. By significantly reducing manpower requirements, accelerating key processes, and enhancing productivity, it has become indispensable in today's fast-paced manufacturing environment.

In the quest to optimize the journey of the golden liquid—from raw copra to refined oil—the Bobcat S70 is proving to be the ultimate engine of progress.



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