

Portable coffee huller to transform sector

Unlike the traditional coffee hulling machines that require hundreds of square metres and three-phase electric power before installation, the portable coffee huller is mobile and energy efficient, operating effectively on diesel or single-phase electric power.

BY OWEN WAGABAZA

For over 20 years, Ziad Lukwago has been growing coffee on four acres in Kitonezi Village, Kasensero Sub-county in Rakai District, yet there is so little that he can show from his farming enterprise.

"I mostly sell unshelled coffee, because there are no nearby coffee hulling machines yet unfortunately, unshelled coffee fetches little revenue," Lukwago explains.

But Lukwago is not alone in this predicament. Despite the coffee boom, many coffee farmers have not been able to fully realise the would-be revenue from their coffee farms, one of the reasons being the failure to add value to their harvests.

These can, however, breathe a sigh of relief, thanks to the new portable coffee huller that will enable them pulp and hull coffee straight from their farms.

Fabricated by Musa Body Machinery Uganda Ltd in Kampala, the portable coffee huller is a new design of technology that has not been on the Ugandan market.

"We had earlier innovated the portable coffee huller for wet coffee, but because wet coffee is mostly grown in Kasese and Kapchorwa, the impact was minimal. This new one is for hulling dry coffee, which is the most grown around the country," Hadad Ssebunza, the Managing Director of Musa Body Machinery Uganda Ltd, explains.

Ssebunza says unlike the traditional coffee hulling machines that require hundreds of square metres and three-phase electric power before installation, the portable coffee huller is mobile and energy-efficient, operating effectively on diesel or single-phase electric power.

"Traditional coffee huller machines are capital intensive and cost a minimum of Shs120m de-

pending on the size, yet many a time, coffee farmers are small scale and can't afford such capital-intensive machinery. For this one, one can put it on a boda boda and move from one farm to another," Ssebunza explains.

He says the machine is designed for efficient and precise removal of the outer shell from the dried coffee beans. It is ideal for small to medium scale coffee processing farms and ensures high quality coffee beans with minimal breakage.

"The hulling process involves removing the outer husk from the coffee beans. These machines are designed to handle different varieties of coffee beans with precision, ensuring the beans are not damaged during the process. The efficiency of this portable huller allows for high output while maintaining the integrity of the beans," Ssebunza says.

Reduced cost of production

Before the portable coffee huller, farmers would have to take the coffee for hulling at factories and then come back with coffee husks or even leave them there. Here, it is the coffee trader who moves the coffee huller to the farm, enabling the farmer to save on transport costs and is also able to retain the husks at the farm, saving on fertiliser costs while realising improved yields.

In just six months since its launch, Ssebunza says the portable huller has been well received on the market and over 250 orders have been registered so far. Costing Shs6.5m, it has the capacity to produce 500kg per hour, half the output of the traditional machines whose output is 1000kg per hour.

Game changer

Moses Sebitakuli, a coffee farmer in Nawanende, Kamuli District anticipates improved incomes



Costing Shs6.5m, the portable huller has the capacity to produce 500kg per hour, half the output of the traditional machines. PHOTO: OWEN WAGABAZA

among coffee farmers with the advent of the portable coffee huller.

"We have been losing a lot of money to middle men who buy from us unshelled coffee at very low prices because of the absence of coffee factories in our localities,"

he says. "Value addition is key and with this mobile coffee huller, am hopeful that our incomes will improve by adding value to our harvests," he adds.

And unlike before when farmers would leave the husks at fac-

tries and instead incur costs of buying fertilisers, here, farmers will be able to use them in their farms, improving on yields.

Ssebunza calls on the government to support the cottage industry as they are key in the economic transformation of a country.

"We have the expertise to fabricate all kinds of machinery for value addition and I call on people to come and share with us their plans and we will surely come up with a solution. You can even produce for export using our locally fabricated machinery. India is an example where the cottage industry has had a far greater impact on the economy."

THE PROCESS

Coffee hulling is an optional step in coffee production. Coffee hulling occurs in the late stages of coffee processing; it is usually done between milling and polishing, although some people consider it to be a part of the milling process or skip the polishing and move directly onto cleaning and sorting.

The goal of coffee hulling is to remove the parchment skin (also called "pergamino" from the coffee bean. The parchment is a naturally occurring, papery substance that surrounds the coffee bean, just like the endocarp (membrane-like layer) that surrounds many other types of fruit seeds (such as apple seeds). Hulling away the parchment is optional because some coffee beans are sold "in parchment" (or "en pergamino").

After coffee beans have been dried (either in the sun and/or in drying machines), the parchment skin is crumbly and dry, so it can be easily removed.

In the case of wet process coffee, hulling removes the dried husk surrounding the coffee bean (including the exocarp, mesocarp and endocarp/parchment). For semi-dry processed coffee, hulling removes both the husk and the dried mucilage from the bean. For dry processed coffee, hulling removes a leathery covering from the coffee beans, which includes the husk and the mucilage as well as other plant material.