

- When using the chorker kiln there is minimal handling of fish, reducing losses that would otherwise result from excessive handling.
- The chorker kiln has a high capacity and can cope with large quantities of fish.
- Efficient in fuel usage. The kiln uses up to 50% less firewood than the traditional smoking ovens
- The chorker kiln is cheap to make and can be assembled using locally available materials.

During smoking, it is important:

- To control the temperature of the fire. This **can** be done by **adjusting** the **amount** of wood in the kiln **and** by **adding fresh** leaves.
- To keep **checking** the fish to ensure that it is **not burning or** accumulating soot.

Smoking Fish as a Business

When smoking fish e.g. catfish, one must know how much weight of fresh whole fish is required to get 1 kg of the smoked product. In cases where fish is sold by weight. Usually one kilogram of live fish will reduce to between 400g and 500g after smoking. Because of this loss of weight, It is preferred that smoked fish is sold per piece and not by weight.

It should be noted that the greater the quantity of fish smoked, the lower the unit cost because smoking large quantities of fish, maximizes use of fuel, labor, time and other inputs.

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Value Addition of Farmed Fish Using a Chorker Kiln



Introduction

The increasing demand and decreasing supply of fish from the wild provides an opportunity for expansion and growth of the aquaculture industry in Uganda. However there are several issues that fish farmers face with respect to getting their product to the market including transportation and processing. In order to add value to farmed

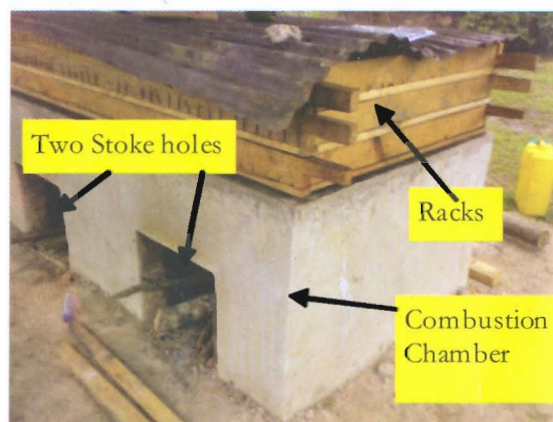


Figure 1: Chorker Kiln

fish, improve on product quality and reduce losses NaFIRRI, Kajjansi has adapted the Chorkor kiln technology.

The Chorkor kiln

The Chorkor kiln is an improvement on the traditional fish smoking method. The later often causes losses as a result of excessive fish handling and increased use of fuel (wood). However the chorker kiln technology is simple and easy to use. With minimal handling the kiln can smoke large quantities of fish on racks.

The Chorker kiln consists of a clay floor with side brick walls which serve as the fireplace (combustion chamber). The combustion chamber is rectangular, twice as long as it is wide (225 x 112 x 60) cm. The Chorkor kiln is partitioned by a vertical wall of bricks to produce two chambers each with a stock hole (Figure 1).

Racks made of wire mesh in wooden frames (Figure 1) are laid on top of the combustion chamber. Fish is placed on the racks for smoking. Smoke and heat rising from the fireplace gets into contact with the fish on the racks.

How To Smoke fish Using a Chorker Kiln

- 1) After harvesting, Keep the fish to be smoked in clean water for 12 hours without feeding.
- 2) Quickly slaughter the fish and allow it to bleed, then split it to remove the gut and excess fats
- 3) Wash the fish thoroughly with a brush to remove blood
- 4) Prepare a salt solution dissolving 1 kg of salt in 10 liters of water. To enhance the taste of the fish, spices of choice such as garlic can be added to the solution. Immerse the fish in the solution for at least 3 hours.

- 5) Spread the fish on a rack to drip for at least one hour. Meanwhile light the fire in the smoking kiln. It is recommended that you use freshly cut selected trees (e.g. fruit trees) to fuel the fire. Note that some trees such as eucalyptus contain substances which can be harmful to human health while others can impart bad aroma to the fish.
- 6) Finally place the fish on racks that are rubbed with some little oil to avoid fish sticking onto the racks and place the racks onto the kiln

Advantages of the Chorkor Kiln Technology

- It produces high-quality smoked fish (Figure 2), in terms of taste, flavor, texture and increased shelf life.



Figure 2: Golden brown Smoked catfish product using the chorker kiln