

PRACTICE ABSTRACT n° 40

Author: Margaret Masette, Samuel Edgar Tinyiro, Davis Akullo, Fred Wanda and Cassius Aruho – *NARO*

PAH-safe smoking of farmed fish

Smoking is one of the low-cost fish preservation technologies available to processors at artisanal level. Smoking entails dehydration, imparts antioxidant and antibacterial properties from the phenolic compounds. Technically at artisanal level, it is for impartation of smoky flavour. Traditionally, fish is smoked using local kilns, mud and wattle, altona kiln, mechanical, afos kiln and chokor kiln. However, the cited kilns expose fish to high levels of carcinogenic compounds (Polycyclic aromatic hydrocarbons, PAH) from the dispersed phase of smoke, for example benzo α pyrene. NARO has developed a PAH safe smoking technology that gives a good quality smoked fish product with acceptable levels of PAH below 5 ppb.



Demonstration of NARO PAH-Safe Fish kiln with women SME

Kiln with smoked Nile Tilapia

The processing steps are as follows;

The PAH-safe smoking technology was used to develop smoked fish products (Nile Tilapia and African Catfish) with extended shelf life.

