

How to Add Value to Palm and Palm Kernel Oil Refinery By-products

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Oil Palm which originated from West Africa is comparatively a new crop in India and has highest vegetable oil yielding capability per hectare. It produces two distinct oils, i.e. palm oil and palm kernel oil, which are used for culinary as well as industrial purposes. Government of India has continuously been making efforts to increase the area production of oil palm. As the availability of Palm oil and Palm Kernel oil in the country, it is important to study the ways of adding value to the by-products obtained from refining and fractionation processes.

The by-products like PFAD and Palm Stearin are further processed to obtain Industrial products. PFAD can be converted into biofuel, cosmetics or calcium soap etc. Major processes adopted for these treatments are discussed in the presentation.

Dry fractionation downstream process steps for the re-fractionation of palm stearin to obtain speciality fats and Cocoa Butter Equivalents. Salient design features of specially designed crystallisers for this process are discussed.

A commercially feasible innovative process for crude palm kernel oil is briefed with a comparison with the cold-room process. Process steps adopted to produce esters and emulsifiers from the by-products of CPO refining process are also discussed.