

Spate Irrigation: Milk Churners



Introduction

- Milk Churner is an electrical tool used in dairy production such as, butter and butter milk
- **Why is it useful?**
 - Electrical churners are affordable (US \$15-20)
 - Have the same principles as traditional churning
 - Easy to operate and handle
 - Reduces workload
 - Improves hygiene
 - Improves food production outputs and economic outcomes

Traditional Milk Churners

- Milk churner having single blade but holes into it – European old model



- Wooden traditional milk churner – European old model



- Traditional Wooden Milk Churner, India

Indian: Electrical Milk Churner

- Has vertical blades
- This model is popular in some parts of India
- Vertical blades ensure maximum mixing and rotation of yogurt, are made of steel, easy to clean and don't smell
- Length of shaft can be adjusted through lid based adjusters
- Blades and shaft can be detached
- Spare parts are easily available and repair is economical



Pakistani: Electrical Milk Churner

- Has horizontal blades – prevents utensil's bottom from being scratched accidentally
- Shaft is adjusted in length according to utensil and blades can be separately replaced when required
- Weight of devices is enough to stabilize the rotation and function of churner
- The lid can be replaced/attached according to diameter of utensil
- It is shock proof and blades are made of plastic
- Blades need careful cleaning immediately after use otherwise become smelly
- Spare parts are available and repair can be done locally



Best Practices: Sudan

- Freeing up time for education and care of children
- Takes now 20 minutes to produce butter from 1 liter of milk
- Reduced workload
- Side product – Ghee sold at an attractive price in the market
- Link on Milk Churners: <http://spate-irrigation.org/special-projects/equipment-for-rural-women/>



Using Milk Churner in Kassala, Sudan



Cream from the milk churner

Few options to meet the local demand of churner:

- Churner can be imported under the project (IFAD or other) in order to avoid strict and complicated import rules;
- Churner can be imported by Ethiopian business sector and then marketed; and
- Churner can be manufactured by local Ethiopian manufacturers using the same design