



RESEARCH  
PROGRAM ON  
Livestock

*More meat, milk and eggs by and for  
the poor*



## Milk fat separation to accelerate butter production and reduce labour

### Key messages and solution

- Milk fat separation increases the efficiency of butter processing with enhanced quality
- Milk fat separation will increase the milk returns through processing high value products from the skimmed milk
- The separation of milk fat offers a solution to handle larger quantities of milk

### Problem statement

- Butter is the main product sold by the farmers in the market. However, the processing procedure is labour-intensive for women. Butter is processed by continuously churning fermented milk for at least 1,5 hours. It was observed that low churning efficiency is a problem contributing to post harvest losses.
- Fat separation technique is a method to increase efficiency and reduce the work needed.
- Moreover, the skimmed milk that is produced can be used to produce highly nutritious and valuable products with long shelf life, such as cheese.

### Benefits

The use of milk fat separator helps:

- Reduce labour needed for butter churning
- Increase butter yield
- Improve the quality of butter
- Processing of high economic products from the skimmed milk.



## Evidence

- The intervention was tested with farmers in Tigray. It will reduce the heavy load on women needed to churn butter. It is estimated that labour required to produce butter will be reduced at least by 70%. Butter yield was increased by 5% which is the main sold product by farmers.



## Suitability

- The intervention is appropriate for pastoral and agro pastoral communities who produce butter (*Kibe*) as a main product. The fat separator is available in manual and electrical versions.
- It can serve a community as a shared action and the resources required are cash. There is a need to know how the device works and operates. The intervention contributes especially to reduce the workload of women and gender empowerment. Moreover the improved quality of butter will benefit consumers.

### Resource requirements (low to high)

|                      |           |
|----------------------|-----------|
| Land                 | ○ ○ ○ ○ ○ |
| Water                | ○ ○ ○ ○ ○ |
| Labour               | ○ ○ ○ ○ ○ |
| Cash                 | ● ● ● ○ ○ |
| Access to inputs     | ● ● ● ○ ○ |
| Knowledge and skills | ● ● ● ● ● |

### Impact areas (low to high)

|                            |           |
|----------------------------|-----------|
| Food security              | ○ ○ ○ ○ ○ |
| Human nutrition            | ● ● ○ ○ ○ |
| Employment and livelihoods | ● ○ ○ ○ ○ |
| Natural resources base     | ○ ○ ○ ○ ○ |
| Gender empowerment         | ● ● ● ○ ○ |
| Market linkages            | ● ○ ○ ○ ○ |

## Value chain focus

Input & services

Production

Processing

Marketing

Consumption

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## Acknowledgements

This is a product of the CGIAR research programs on Livestock and Fish (2012-2016) and LIVESTOCK (2017-2022) as well as the International Fund for Agricultural Development (IFAD)-funded SmarT Ethiopia Project - Improving the Performance of Pro-Poor Sheep and Goat Value Chains for Enhanced Livelihoods, Food and Nutrition Security in Ethiopia. The project is led by ICARDA in close collaboration with ILRI, national and other international partners. The Project thanks all donors and organizations who globally support its work through their contributions to the [CGIAR system](https://www.cgiar.org). Organizations contributing to this work are: ICARDA, ILRI, EIAR, ARARI, TARI, and OARI.