

# Helping farmers supply animal fodder all year round

**DOW**<sup>®</sup>

## Addressing climate challenges and community welfare

80% of the milk produced in Kenya comes from smallholder dairy farmers<sup>1</sup>, which are family run businesses. Local communities have been urgently seeking a solution to reduce animal feed losses caused by traditional storage methods and increasingly challenging climate conditions.

To help farmers overcome these challenges, Dow and Packaging Industries Limited (PIL) have joined forces. By combining PIL's vast agricultural experience with Dow's material science and sustainability expertise, they co-developed Mama Silage Bags.

Thanks to Mama Silage Bag's innovation, farmers can now better manage their animal feed needs and maximize outputs, resulting in consistency in milk production. With that comes a sustainable income over the whole year, less dependent on seasonal fluctuations.

<sup>1</sup> Source: Dairy Development in Kenya. By Frans Ettema

This simple, effective solution helps improve animal fodder availability by addressing:



Erratic weather conditions



Silage bag damage caused by birds and rodents



Fodder losses due to overfermentation and overheating during storage



Lack of strength in conventional silage bags, which makes reusability impossible

As part of this project, Dow is working closely with Packaging Industries Limited (PIL), project partners, and local cooperatives to support with the distribution and farmers' training on the use of Mama Silage reusable bags.



Made in Kenya

Innovated by Enabled by

Image: Courtesy of PIL<sup>®</sup>

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## Aligned with the UN Sustainable Development Goals

The Mama Silage initiative supports Dow's 2025 Sustainability Goals and aligns to the UN Sustainable Development Goals on food security and nutrition, and sustainable agriculture.



End hunger, achieve food security and improved nutrition and promote sustainable agriculture.



Building resilience of local food systems will be critical to averting large-scale future shortages and to ensuring food security and good nutrition for all.

## Benefits to farmers

## UN Goals



### Sustainable communities:

- Consistent year-round animal fodder supply
- Post-harvest losses reduced by up to 40% (VOC)<sup>1</sup>
- Steady milk production
- Ensured sustainable income
- Economic benefits through bags reusability



### Empowering women:

- Alleviates women from the burden of having to look for animal feed for their dairy cows during the dry season
- Helps ensure sustained incomes throughout the year



### Sustainable plastic packaging:

- Reusable bags
- Designed for recyclability
- Used bag collection program in a pilot phase



### Food security and nutrition:

- Less dependence on seasonal fluctuations
- Preserved fodder nutrients
- Expected enhanced milk quality<sup>2</sup>



### Reliable bags:

- High-quality, stronger and tougher silage bags versus incumbent bags used today
- Unique aroma barrier to prevent the fodder from damage caused by animal attacks



<sup>1</sup> Preliminary result from an ongoing Voice of the Customer Study among selected farmers in Kenya supported by Dow  
<sup>2</sup> Evaluation study by SLU Sweden, in partnership with Dow, to be completed by Q4 2021

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