

Africa RISING in the Ethiopian Highlands

Post-harvest and food safety: Africa RISING science, innovations and technologies with scaling potential from the Ethiopian Highlands

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Key messages

- Postharvest storage of seed potato in DLS maintained the shelf-life and quality of seed potato resulting in tubers with multiple strong sprouts that gave plants with several stems and high yields.
- Improved feed troughs and storage structures reduced feed spoilage and other waste by 30-50%.
- Smallholder yields and income can be increased by planting quality seed potato stored in DLS.

Objectives and approach

- To promote the postharvest storage of seed potato in diffused light storage
- To promote improved feed troughs and storage structures

Key results

- Diffused Light Storage (DLS) was accepted among small holder farmers.
- DLS caused significant changes in seed potato quality, household incomes and ware potato yield (**Fig. 1**).
- Improved feed troughs and storage structures got high acceptance among small holder farmers (**Fig. 2**).
- Improved feed troughs and storage structures can effectively increase feed availability by up to 50% under on-farm conditions (**Fig. 3**).

Significance and scaling potential

Researchers, extension workers and farmer's knowledge about quality seed potato, storage in diffused light storage for seed potato, and pre and post-harvest handling of seed potato, and improved feed troughs and storage structures will be enhanced by implementing these activities leading to:

- reduced feed spoilage and other waste by increasing the feed availability and quality,
- increased productivity via access to clean potato seeds of high yielding farmers' preferred varieties to farmers, and
- increased incomes and employment as better quality potato seeds will enhance income for small holder farmers since potato is a cash crop.

Core partners

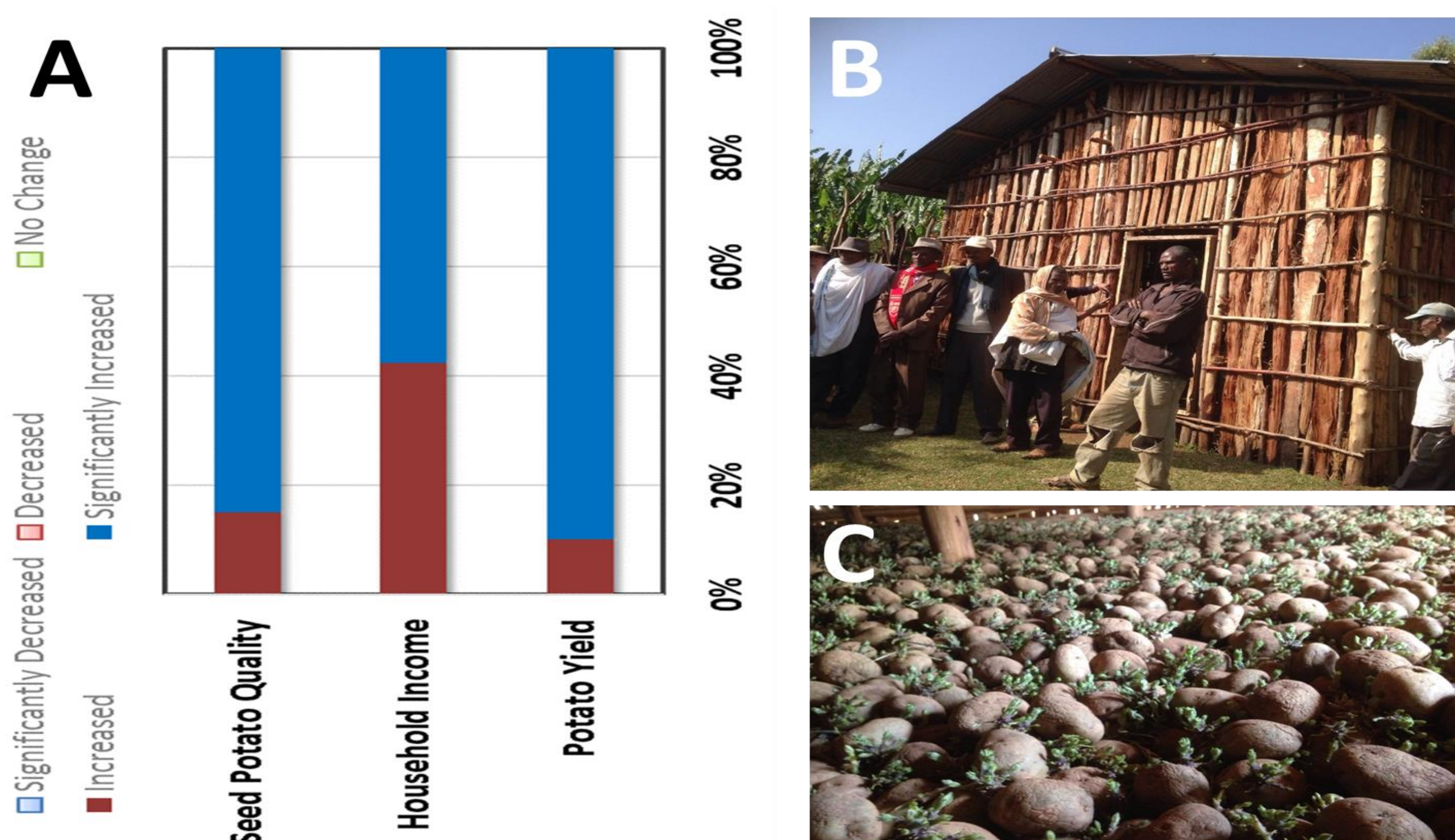


Fig. 1. A) Diffused Light Storage (DLS) has significantly increased seed potato quality, household income and potato yield in Oromia (n=80), B) DLS build in Lemo, & C) seed potato stored in DLS



Fig. 2. A) Feeding trough, & B) Storage shed

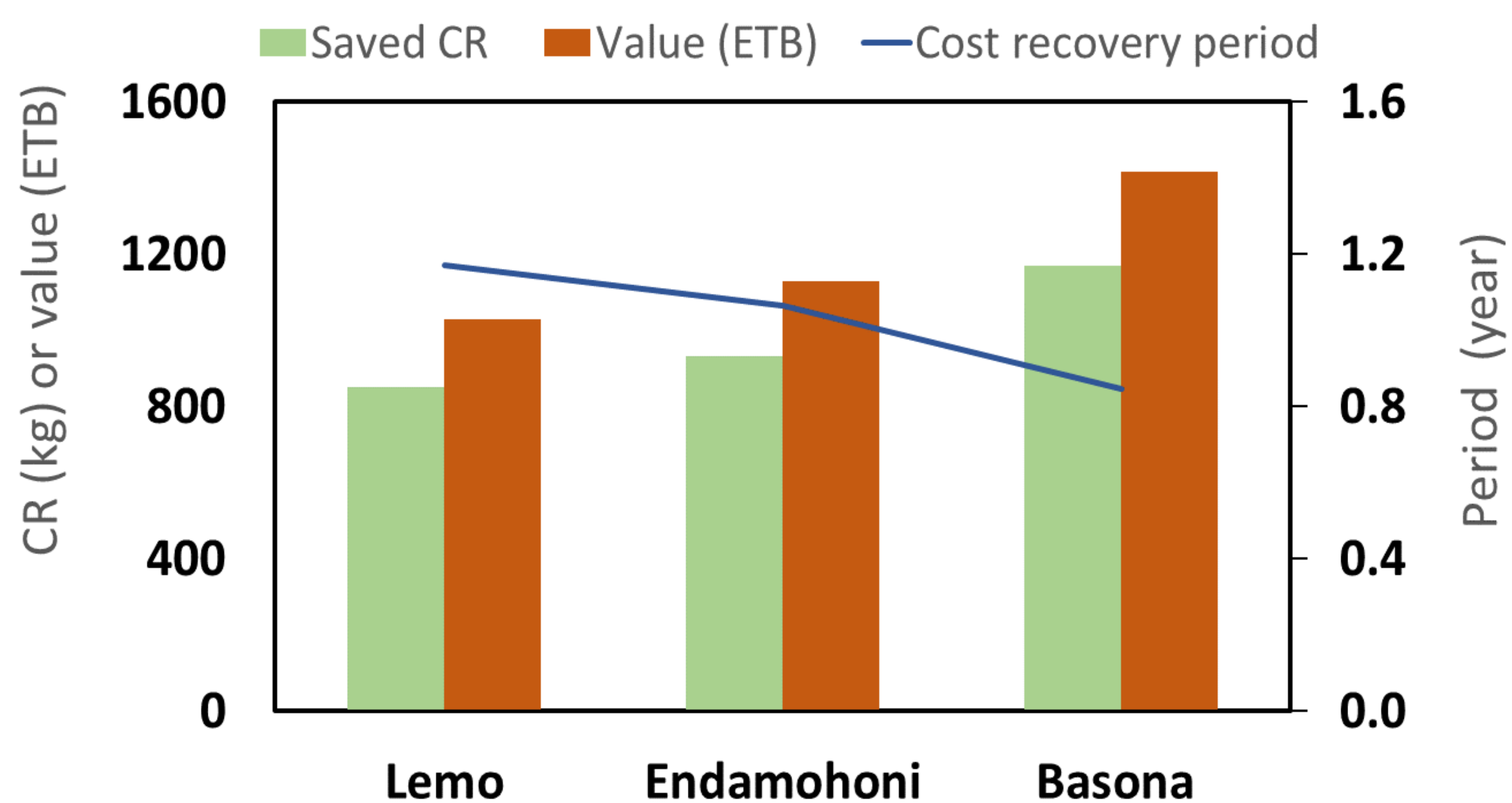


Fig. 3. Quantity and value of CR saved due to improved feeding trough per year per household.

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