

# Potentials and constraints of little bag silage (LBS) for smallholders in Honduras

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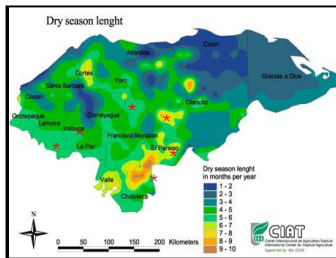
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## Introduction

- Silage making increases dry season feed availability
- Little bag silage (LBS) is seen as a promising silage innovation for smallholders
- Research objective: to evaluate potentials and constraints of LBS under Honduran smallholder conditions

## Methods

- Innovation with LBS was stimulated during farmer trainings and field days in different areas
- Participatory evaluations, experiments, interviews



## Innovation example

The use of a removable mould (e.g. plastic barrel) eases compaction and protects plastic from stretching and tearing



## Potentials

### Technological aspects

- Rapid filling, easy handling, marketability
- Use of small amounts of high-quality forages
- Low initial investment cost
- Low requirement for labour and equipment

### Silage extension aspects

Use of LBS as tool in farmer trainings:

- Visualization of silage principles and proper management
- Experimentation with different treatments and innovations
- Learning by doing at a small scale stimulates adaptation and adoption

Case study: Participatory experimentation with differently treated *Brachiara brizantha* cv. Toledo silages

Treatment	DM (%)	pH	Smell (1-5) <sup>1</sup>	Smell ranking	Losses (%) Range and (average)
Unwilted without additive	22	4.4	2	6	0-10 (5)
Unwilted with molasses (6%)	22	4.5	4	3	0-7 (4)
Wilted without additive	40	6.0	3	5	0-100 (50)
Wilted with molasses (6%)	40	3.9	4	2	0-80 (32)
Wilted with sugar cane (20%)	40	4.7	4	1	0-15 (5)
Wilted with dissolved sugar blocks (6%)	40	4.2	3-4	4	10-100 (40)

<sup>1</sup> 1 = disgusting; 2 = bad; 3 = acceptable; 4 = good; 5 = very good

## Constraints

### Technological constraints

- Flimsy plastic bag material
- Pests, especially mice
- Lack of adequate storage facilities
- DM content and ensilability of forages
- Inappropriate silage preparation

High variability of spoilage losses

### Constraints to adoption

- Cost and availability of suitable bags
- Non-availability of chopper
- Tradition and farmers' preferences
- Availability of alternative low cost feeds
- Small effect on milk production

Limited adoption



## Conclusions

LBS technology proved useful

- as a demonstration, experimentation and learning tool that can be used as adaptable prototype in farmer trainings and field days;
- to introduce small-scale farmers to silage technology at low risk.

