



# Decay factors and carbon storage of selected paper products under optimal anaerobic conditions

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#### BACKGROUND

☐ Decay factors required for landfilled waste

☐ SA lacks waste-specific data

☐ Impact pulp and paper industry

☐ Empirical research needed

#### AIM AND OBJECTIVES

Estimate decay factors for eight key paper materials

Upper-limit of gas production

Prediction factors

Realistic estimate

## RESULTS

Bench-scale runs:

□ office paper

☐ Newsprint

Control

Coated paper

Office paper



itambé

Natura

Biogas

Decay

### FUTURE WORK

☐ Bench scale runs:

Packagingpaper

Multilayeredpaper

Label backingpaper

Liquid board paper

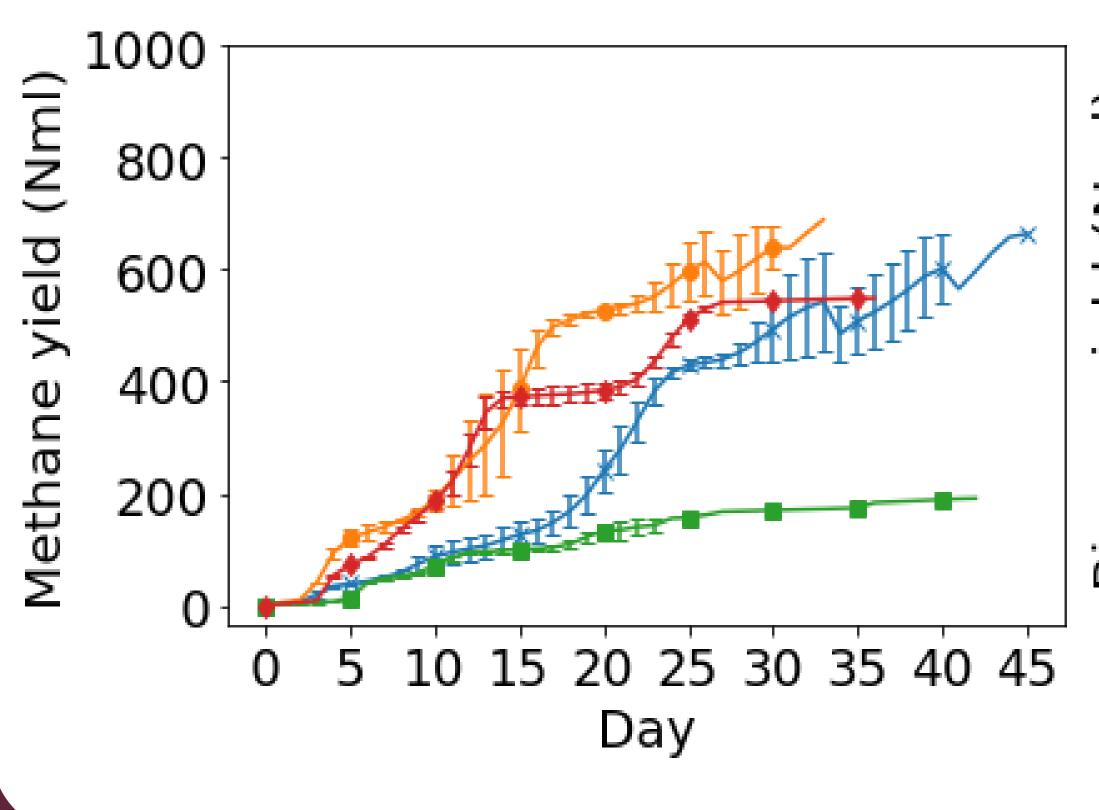
o Paper sacks

☐ Pilot scale runs

☐ Modelling of prediction factors

# REFERENCES

Photos by <u>Ceyda Çiftci</u>, <u>Mr Cup / Fabien</u> <u>Barral, Myriam Jessier, Jon Moore, Sam</u> <u>Herriott, Akram Huseyn, Wesley Tingey,</u> <u>Rishabh Sharma, Annie Spratt, Gabi</u> <u>Miranda</u> on <u>Unsplash</u>



Newsprint

Coated paper

1000 800 Plei N 800 400 0 5 10 15 20 25 30 35 40 45 Day



