THICKNESS VS. LAYERS

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Background

The study was designed to compare the bale shape, the bale integrity and the silage quality when using three different types of stretch film 19µ, 21µ and 25µ applied in 4, 6 and 8 layers on the bale.

Performance of test

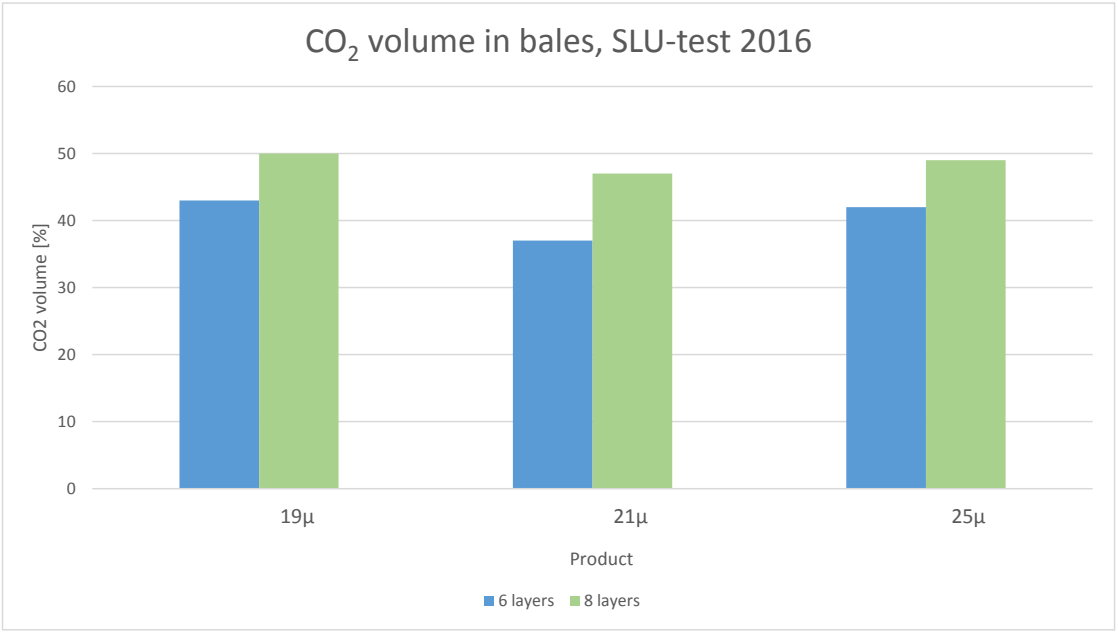
Study performed 2016 by SLU (Swedish Agricultural University, Uppsala, Sweden), supported by Trioplast AB, Smålandsstenar, Sweden.

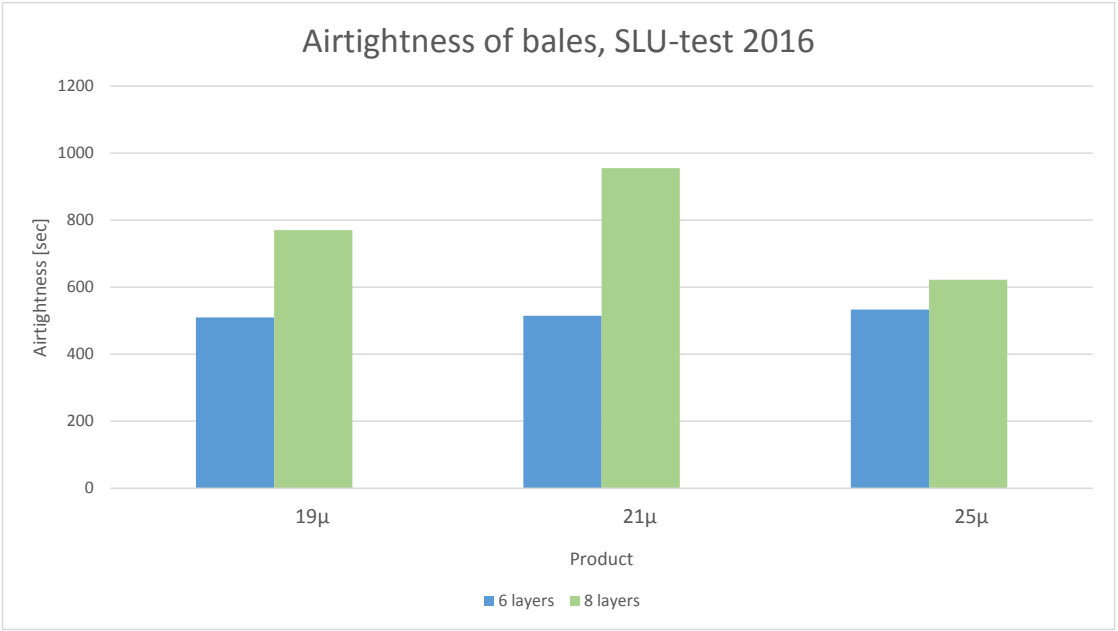
- 54 round bales were produced by a combined baler/stretch film applier.
- Nine treatments. 19µ, 21µ and 25µ film was applied with 4, 6 or 8 layers on the bales. 9 replicates evenly distributed in 9 blocks over the field.

Block	Thickness	Layers
1.	19 µ	4
2.	19 µ	6
3.	19 µ	8
4.	21 µ	4
5.	21 µ	6
6.	21 µ	8
7.	25 µ	4
8.	25 µ	6
9.	25 µ	8

Results

- 4 layers of balewrap is not sufficient to create an airtight bale
- 4 layers of balewrap creates more mould on the surface then bales done with 6 or 8 layers
- Bales done with only 4 layers of balewrap has higher probability to be damaged by birds
- 6 layers of balewrap is minimum recomendation but 8 layers always gives more airthight bales
- With 6 layers of balewrap, 19µ and 21µ has the same airthightness as 25µ balewrap
- With 8 layers of bale wrap 19µ and 21µ tend to give more airthight bales then 25µ balewrap
- 19, 21 and 25 µ balewrap gives the same silage quality


CO_2 volume in bales, SLU-test 2016
60
50
40
30
20
10
0
CO2 volume [%]
19µ
21µ
25µ
Product
6 layers
8 layers


Airtightness of bales, SLU-test 2016
1200
1000
800
600
400
200
0
Airtightness [sec]
19µ
21µ
25µ
Product
6 layers
8 layers