

New method for evaluation of impurities in compost

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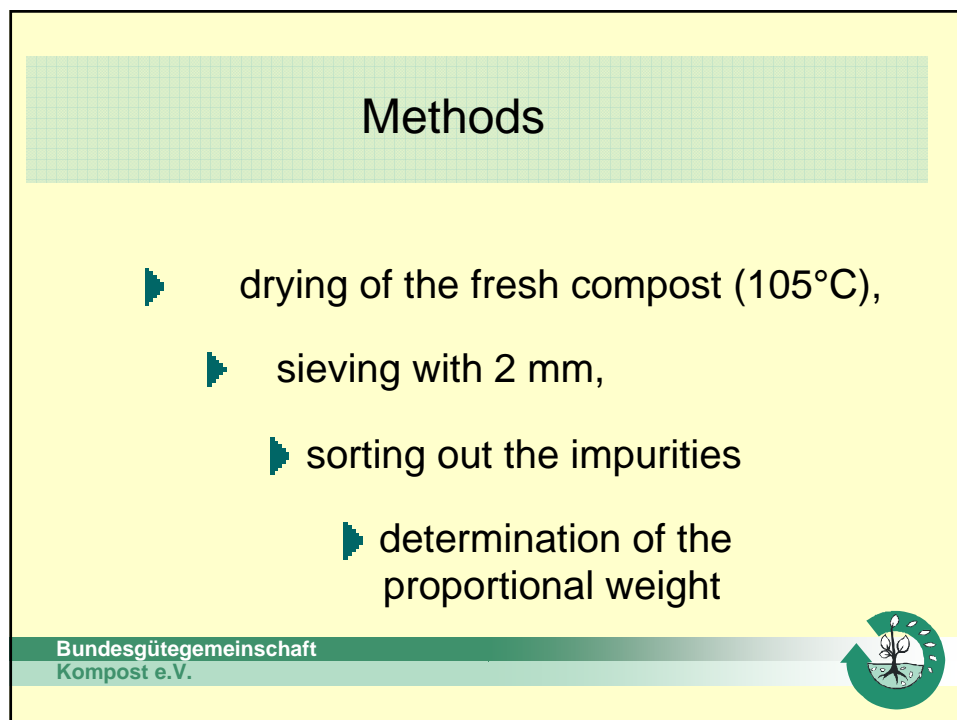
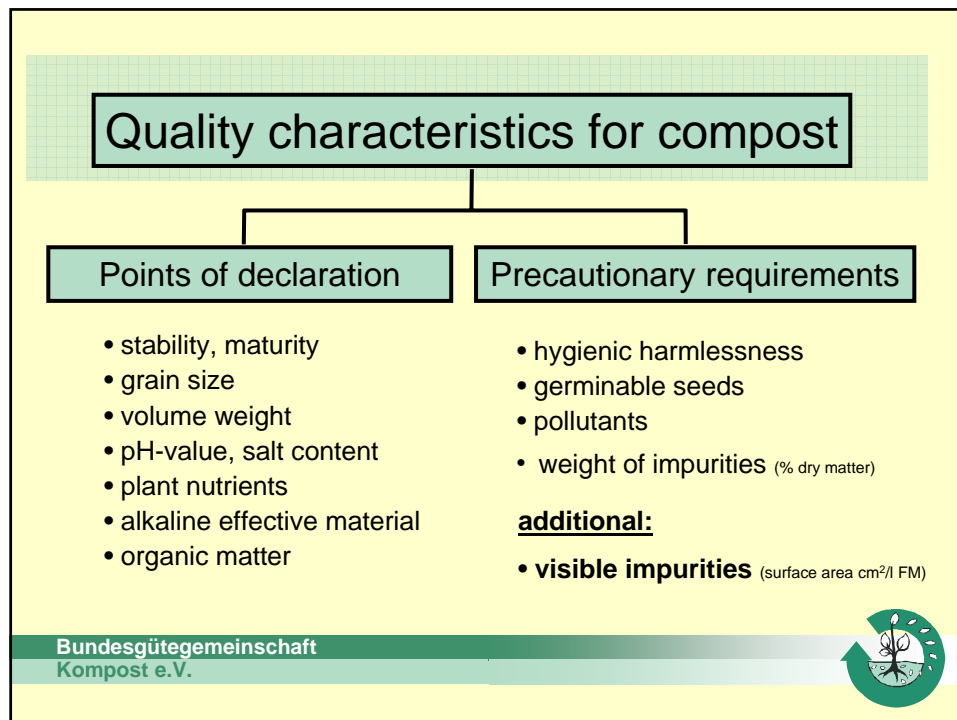
Impurities in compost are:

undesirable ingredients like

- ▶ glass,
- ▶ plastics,
- ▶ rubber,
- ▶ metal etc.

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Impurities in compost



Fraction	weight-% DM	Surface area [cm ² /l]
Impurities > 2 mm [total] in 1 litre	0,47	8,60
light fraction [plastics] on the left	0,03	5,51
heavy fraction [glas, metal] on the righ	0,44	3,09

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Impurities in compost



Fraction	weight-% DM	surface area [cm ² /l]
Impurities > 2 mm [total] in 1 litre	0,17	68,91
light fraction [plastics] on the left	0,13	67,53
heavy fraction [glas, metal] on the right	0,04	1,38

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Methods

- ▶ visual grading and
- ▶ division into classes

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Classes

Grading point	Degree of Impurity	Scale	Characteristic	Grading
1	MINOR	1 a	Free of impurities, neither conspicuous nor inconspicuous foreign materials, no impurities identifiable, appearance not impaired	not contaminated
		1 b	Mostly free of impurities, a few inconspicuous foreign materials, optically not disturbing, appearance slightly impaired.	slightly contaminated
2	NOTICEABLE	2a	Noticeable content of impurities, several inconspicuous, a few conspicuous foreign materials, optically disturbing, appearance noticeably impaired	noticeably contaminated
		2b	Many impurities, a lot of inconspicuous, many conspicuous foreign materials, decidedly disturbing optically, appearance considerably impaired	considerably contaminated
3	STRONG	3a	A lot of impurities noticeable, many inconspicuous, many conspicuous, optically disturbing, appearance strongly impaired.	strong contamination
		3b	A high content of impurities, a large number of inconspicuous and conspicuous, extremely disturbing optically, appearance very strongly impaired	very strong contamination

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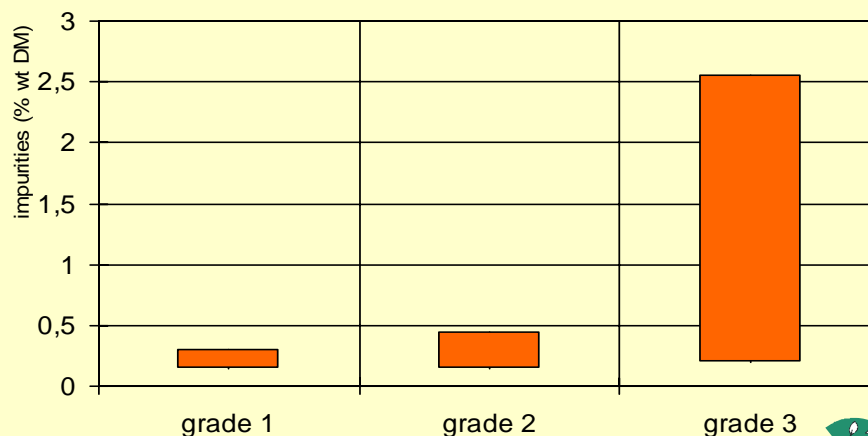
Method: Surface area

- ▶ spreading the impurities out
on a white surface (15 cm x 20 cm)
- ▶ usually after gravimetric
determination with drying and
sorting out of impurities
- ▶ digital photography and
determination of surface area

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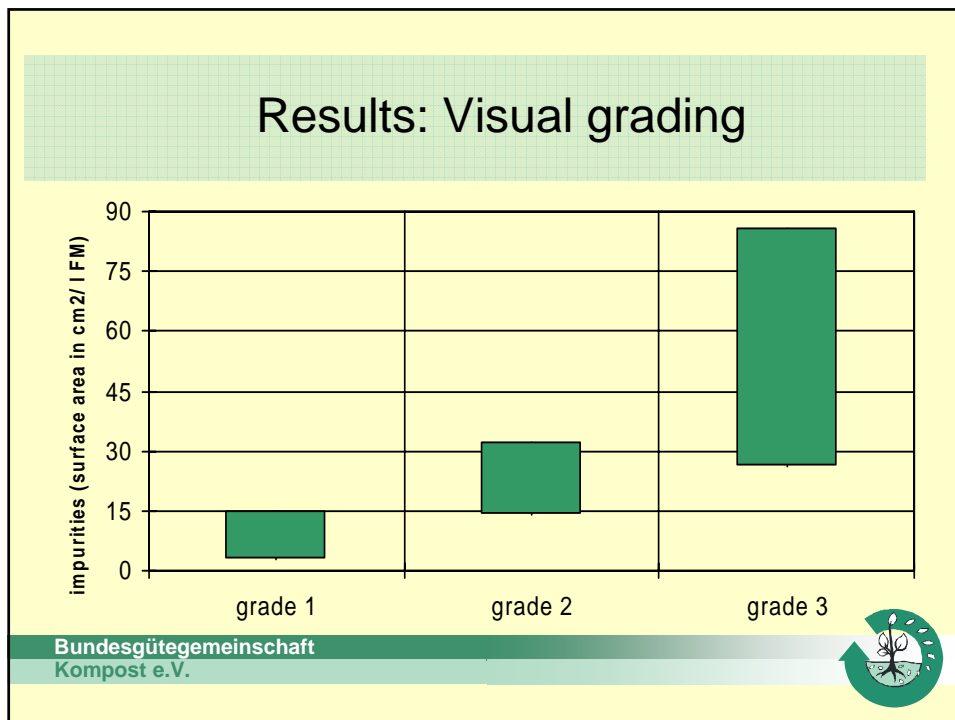


Results: Visual grading



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- ### Results of the projects
- ▶ determination of the surface area of the impurities as suitable method
 - ▶ especially for the determination of light fractions like plastics
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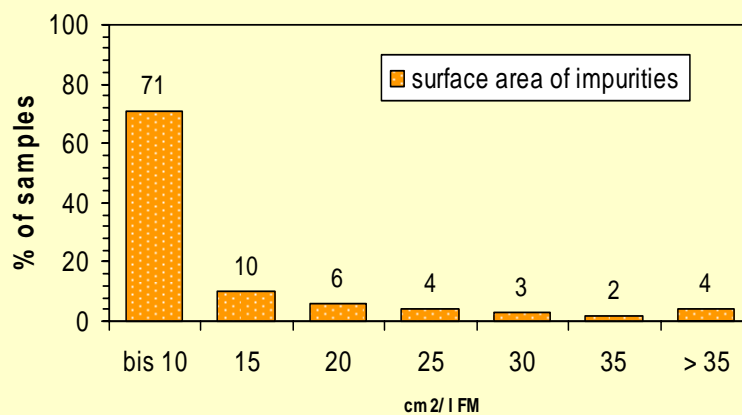
Evaluation of impurities in compost

- ▶ determination by proportional weight
- ▶ and in addition:
determination of the surface area of impurities

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Results of the projects



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New method for evaluation
of impurities in compost

*Thank you
for your attention!*

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