

Composting – what's the point?

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Derby
VitalEarth Ltd

Why?
How?
Uses?

Why?

Challenges!

European Landfill Directive

- Methane
- Waste of land
- Waste of resources
 - Carbon/humus
 - NPK etc (nutrients)
 - Energy



Climate change

Carbon dioxide: CO₂

Methane: 23 x CO₂

Nitrous oxide: 300 x CO₂

An aerial photograph of a terraced agricultural landscape, likely in a mountainous region. The terraces are arranged in a grid-like pattern, with some areas appearing to be planted with crops. The overall color palette is dominated by various shades of green and brown, suggesting a mix of vegetation and soil. The text "Biodiversity?!" is overlaid in the center of the image in a bold, yellow font.

Biodiversity?!

Importation: 70%

NB Ireland & Baltic

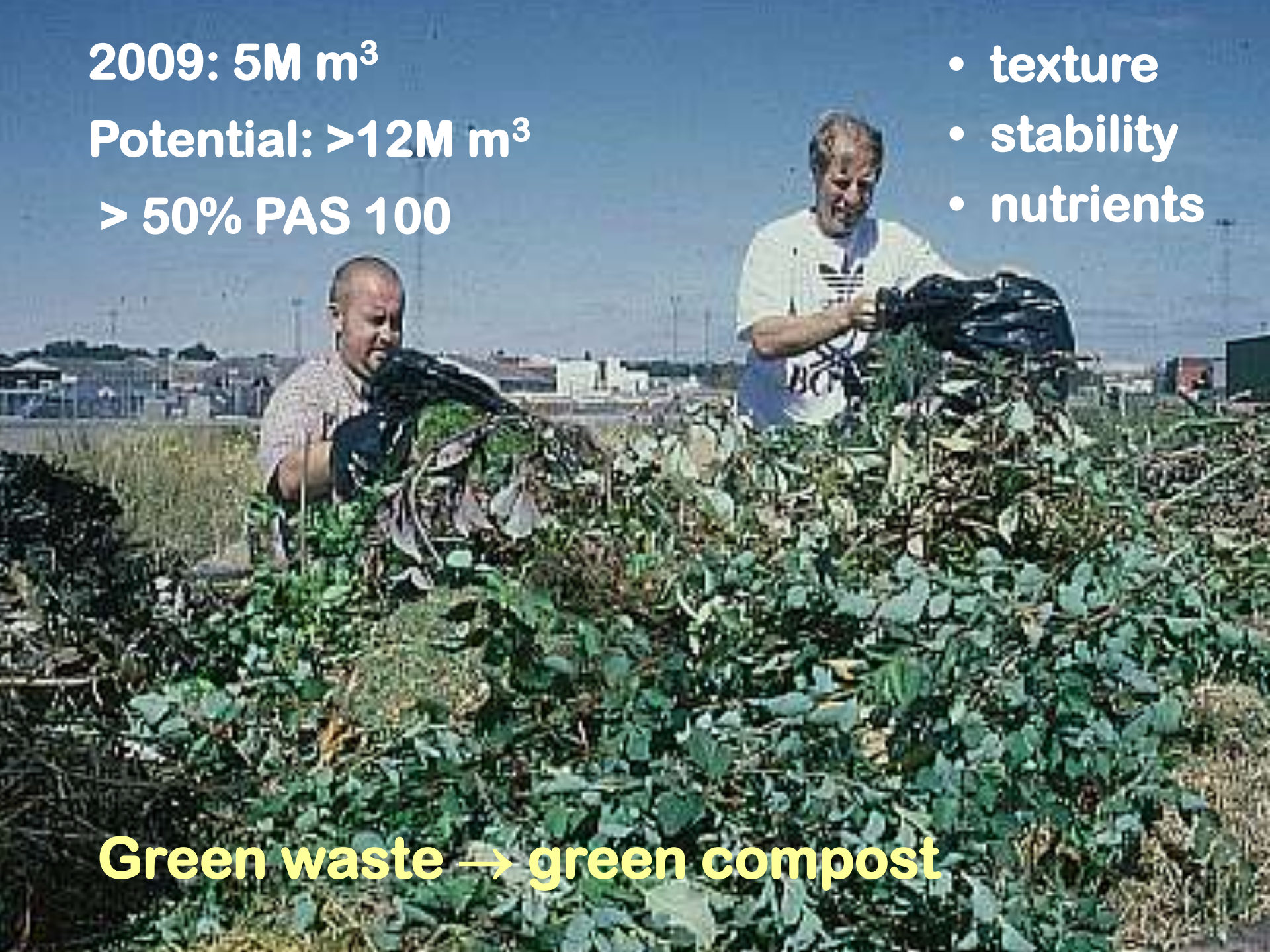


2009: 5M m³

Potential: >12M m³

> 50% PAS 100

- texture
- stability
- nutrients



Green waste → green compost

Quick fix?

or

Lasting solution?



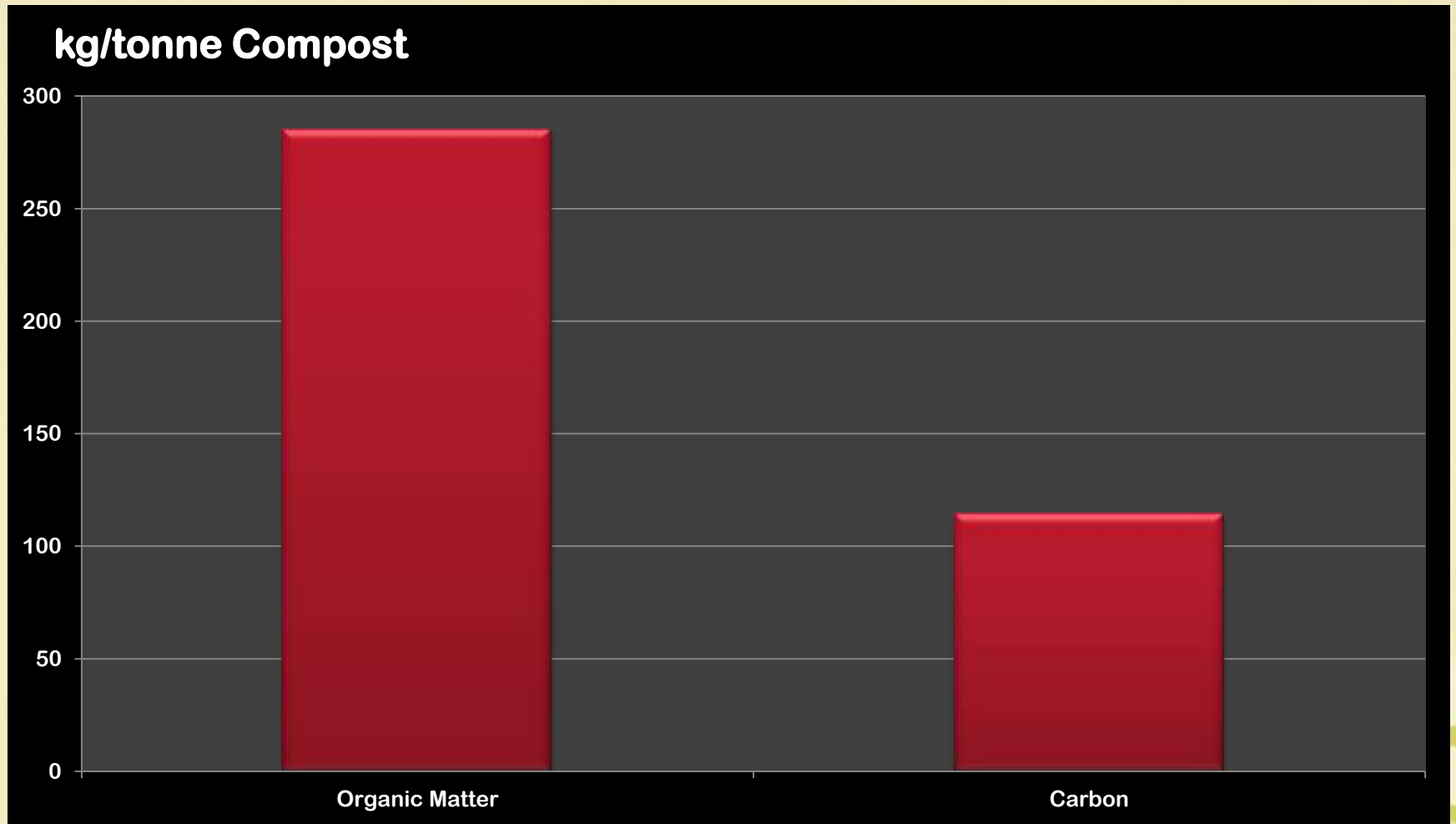
Why?

Benefits!

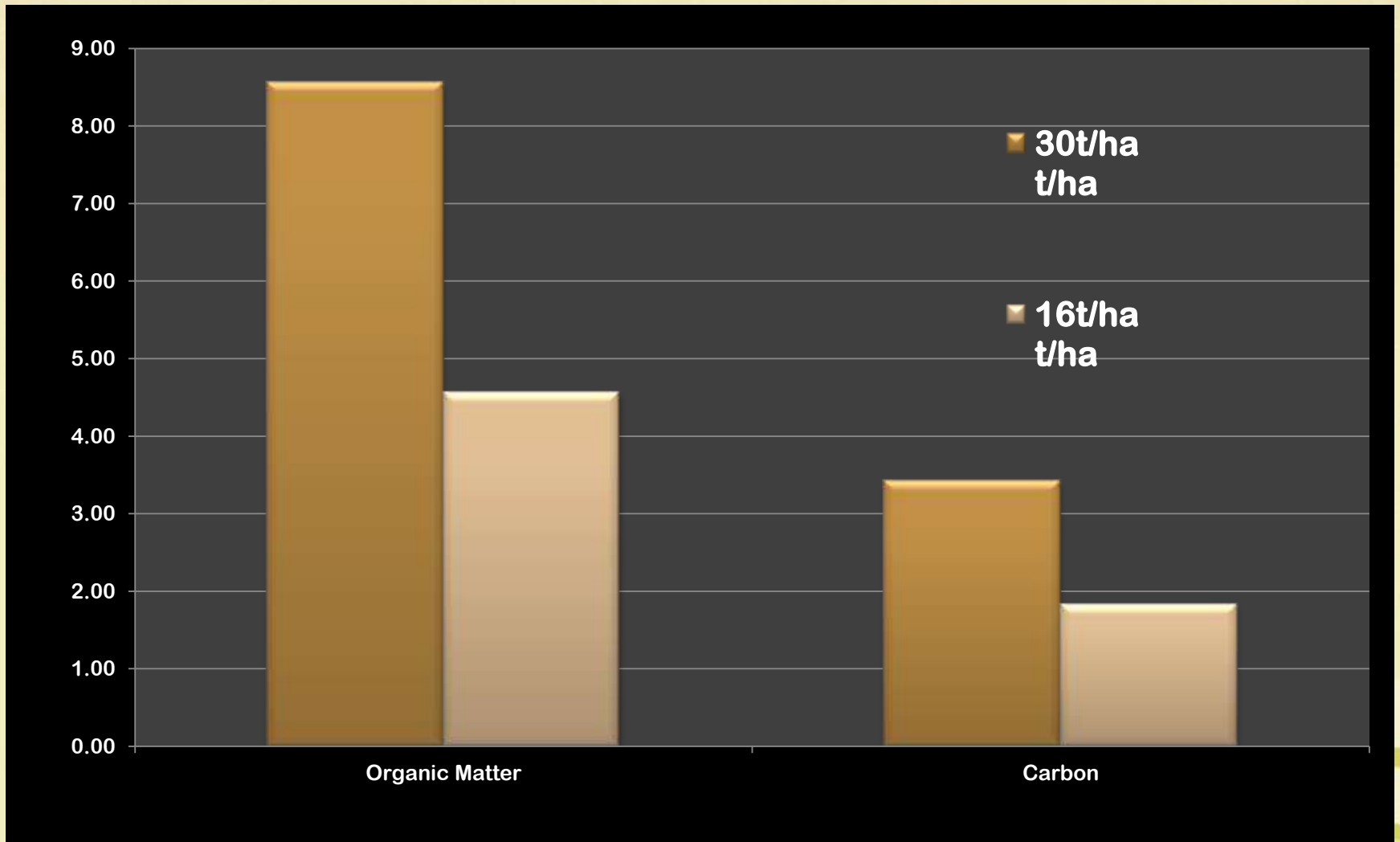
Compost Benefits to Soil

- **Organic Matter**
 - holds water & nutrients
 - structure/stability/health
 - root stimulation
- **Nutrients**
 - mainly slow-release
- **Friendly fungi etc**
 - disease suppression
 - soil structure/health

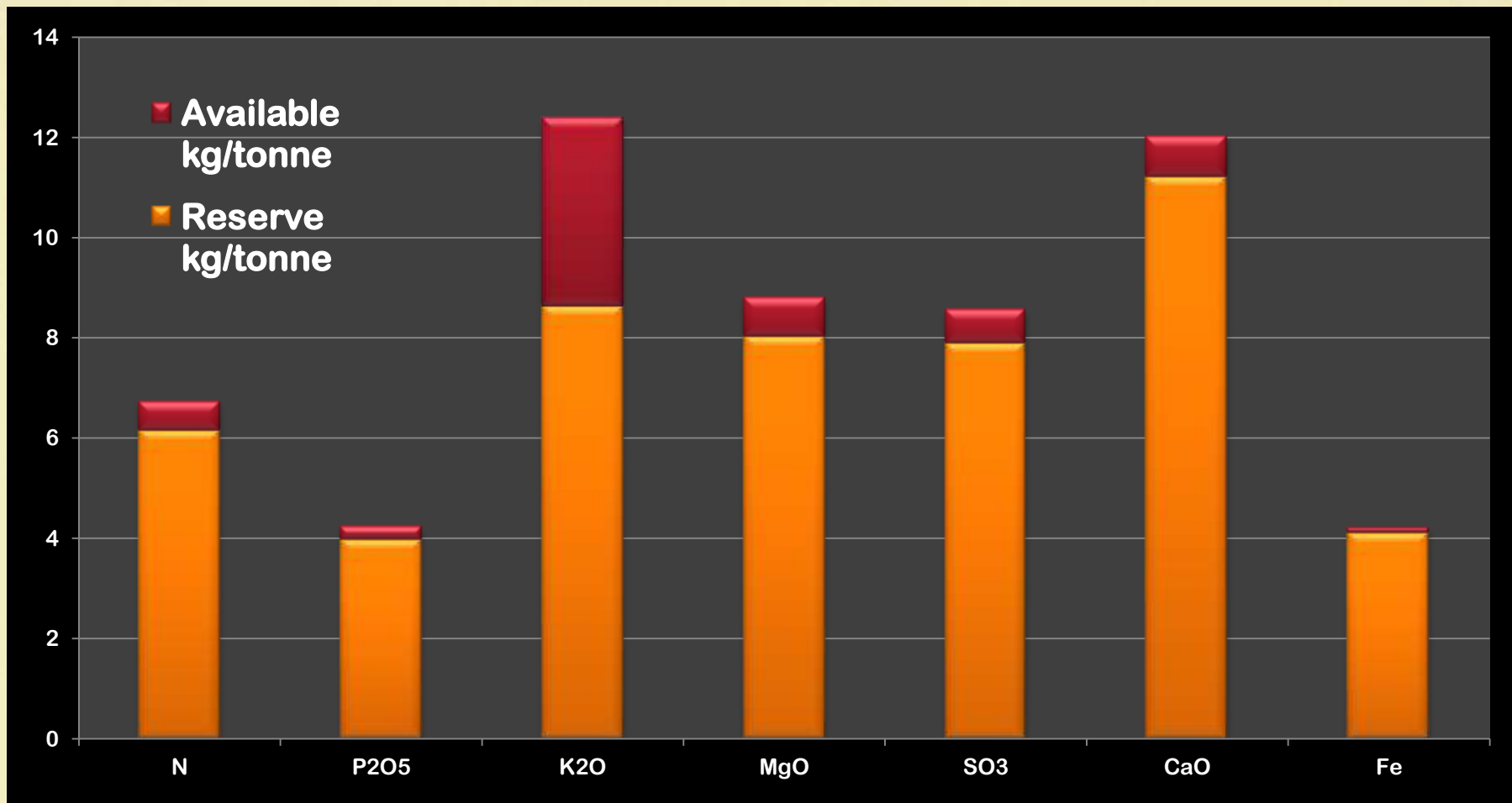
Organic Matter/Carbon Content of Green Compost



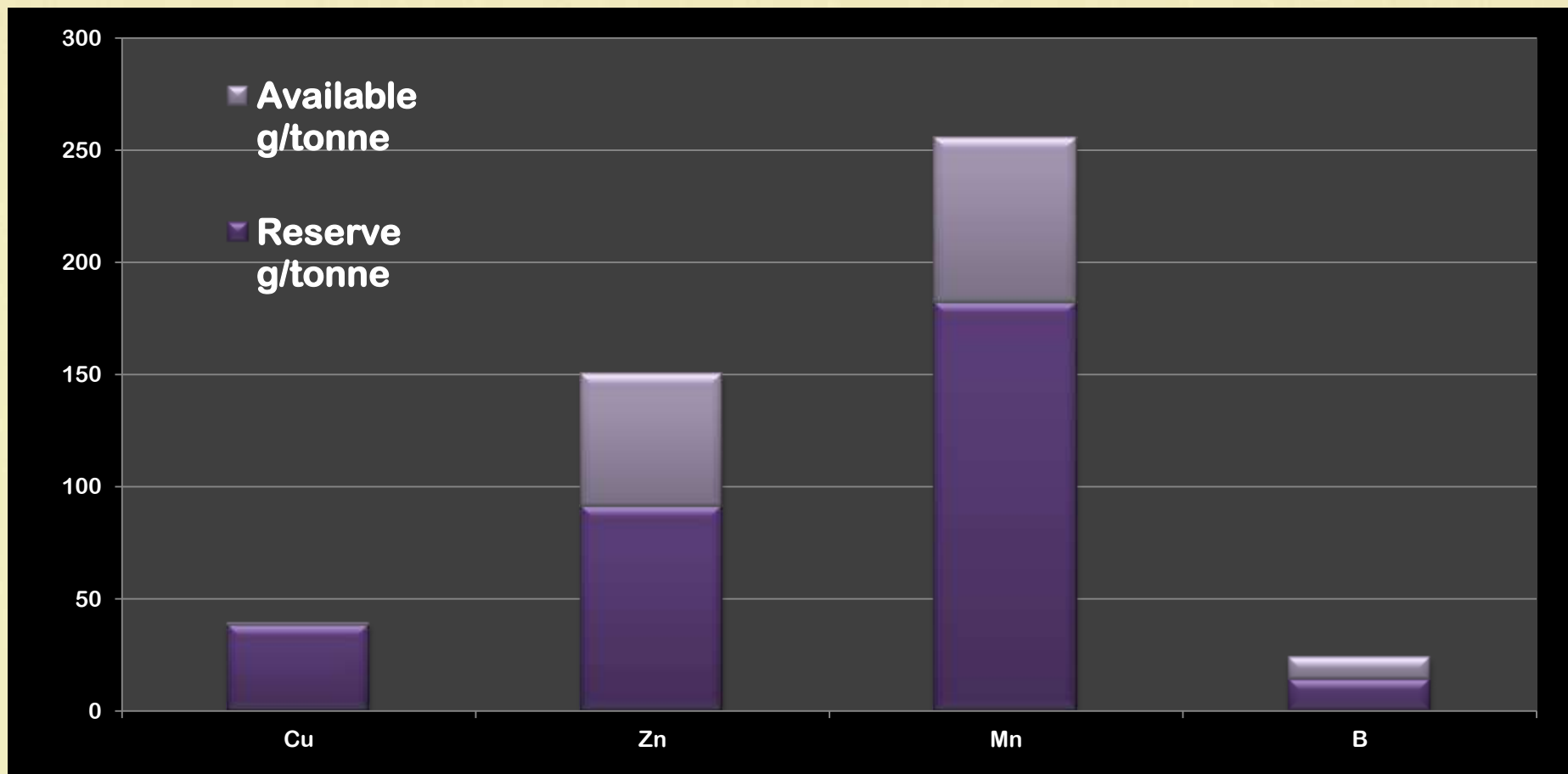
Organic Matter/Carbon Applied as Green Compost



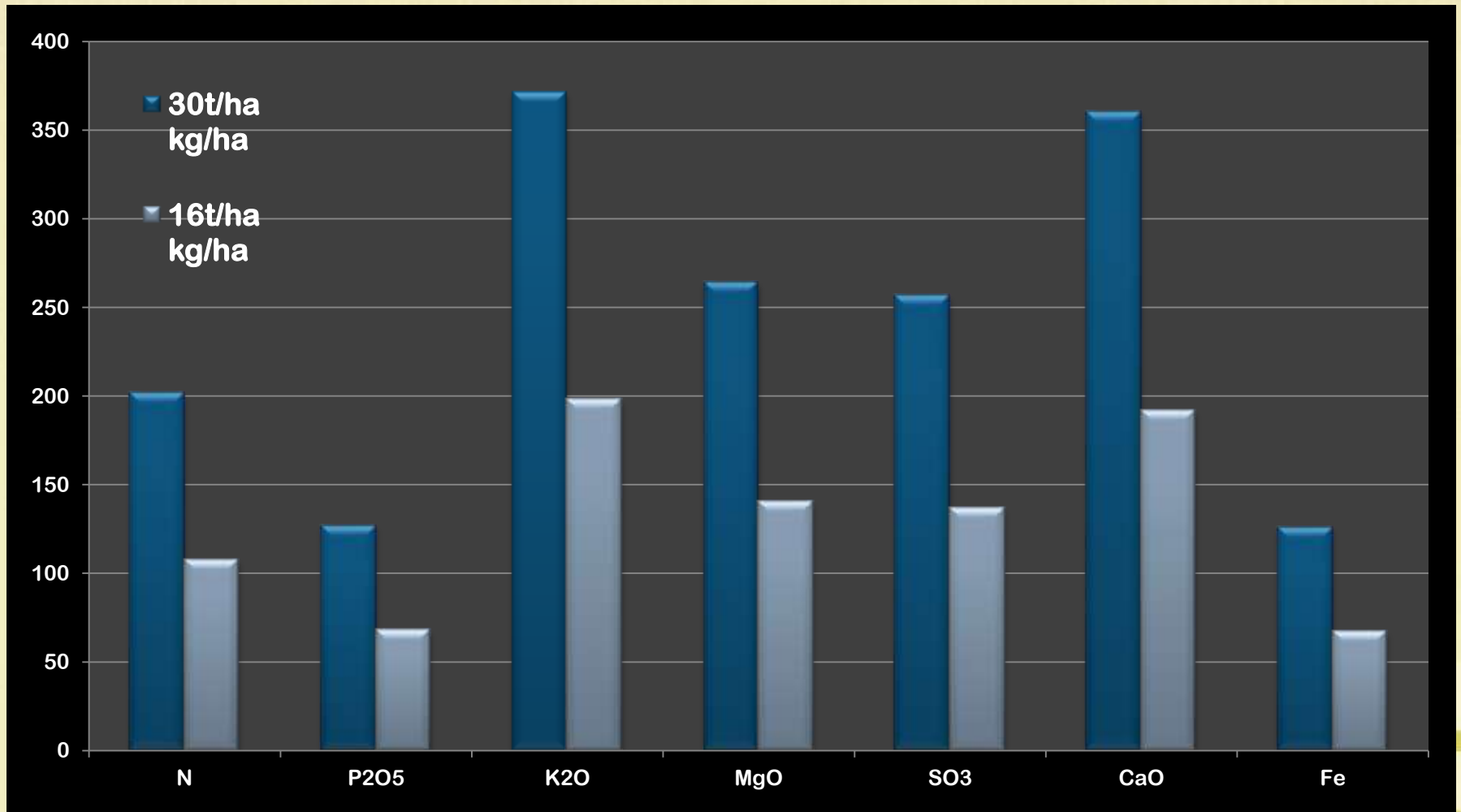
Nutrient Content of Green Compost



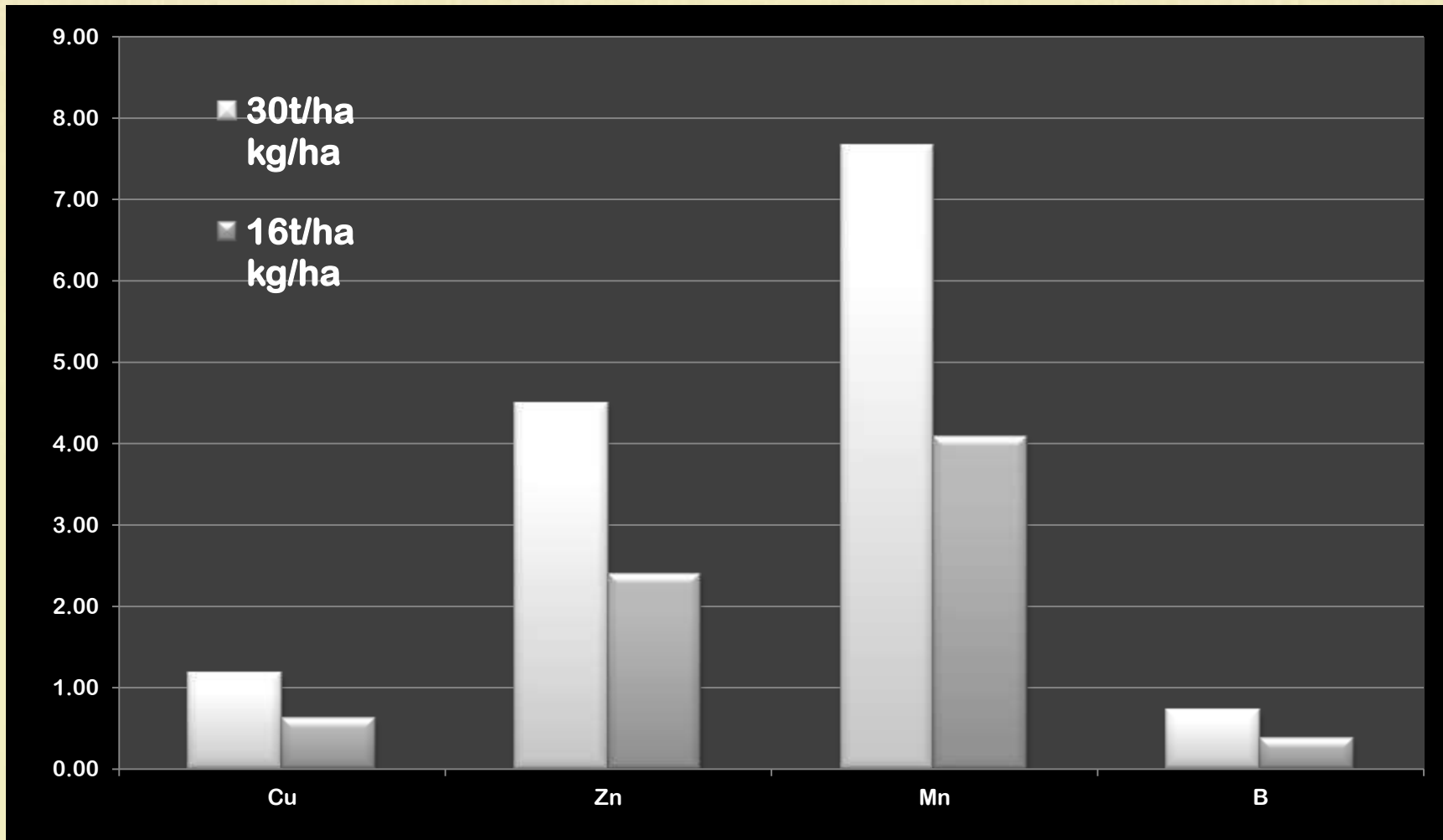
Trace Elements in Green Compost



Nutrients Applied as Green Compost



Trace Elements Applied as Green Compost



Untreated

National Stud, Newmarket

Nitrogen fertilizer



**Green compost/10.0 mm top-dressing
@ 15 tonne/ha (6 tonne/acre)**



Horticulture

(more challenges!)



PEAT

LOAM

PEAT

SAND

SAND

JOHN INNES

UK Growing Media Market (90% peat)



Mm³

Total:	4.0
Grower:	1.2
Retail:	2.8
Multi:	2.0



- pH
- nutrients
- texture

**“There is a natural
opposition in Man
for anything he has
not thought of for
himself”**

Barnes Wallace (inventor of the bouncing bomb)



**“I’ve never
tried it, cos
I don’t like
it”**

It looks like peat & it
feels like peat!



Consistency?
Hygiene?



How?

Solutions

- 
- dilute nutrients
 - lower bulk density
 - adjust texture
 - lower pH

N lock-up/draw-down/immobilisation

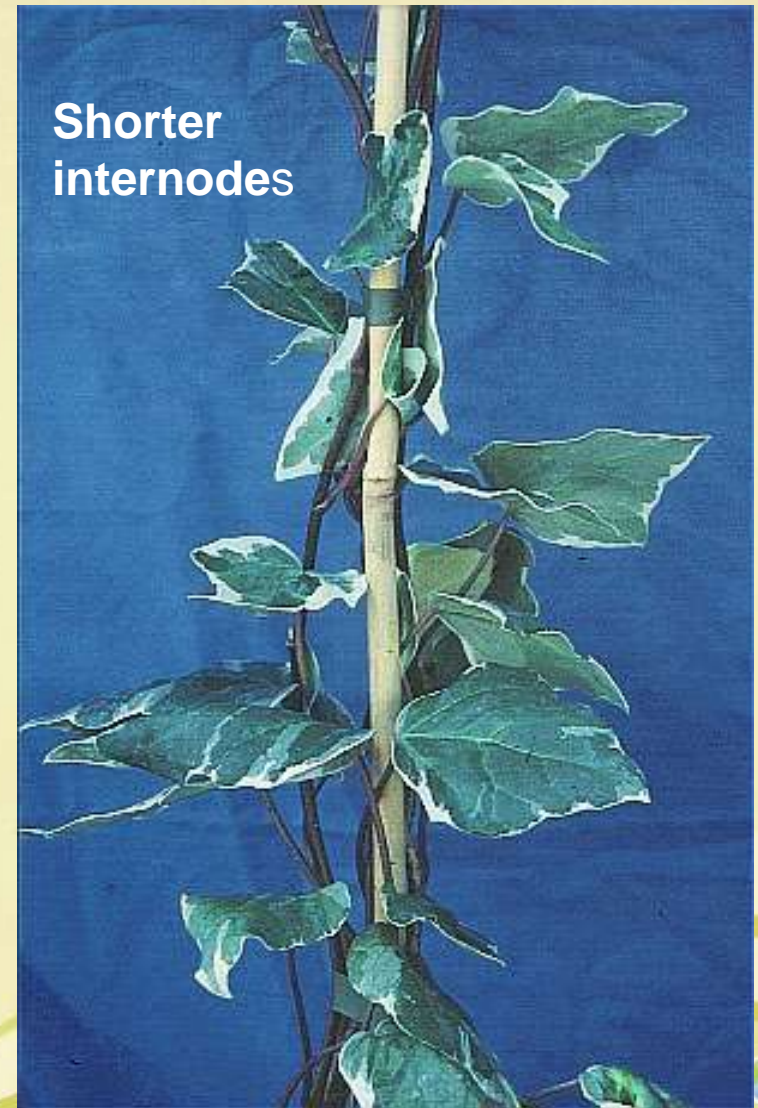


Vital Earth

Hedera canariensis variegata



Std/peat



Peat-free

Tipping greenwaste in reception area



PHOENIX



DDDC and CLEANAWAY
WORKING TOGETHER TO REDUCE WASTE
TELEPHONE 01629 761845
www.derbyshiredales.gov.uk
"REDUCE, RE-USE, RECYCLE"

ULW13940KG

ANAWAY
Bit-Recycle it™

Picking line



Shredding





Electro-magnet belt

Wetting shredded waste & loading mobile composting vessel





Vessel aeration system and filter bed



Maturation: forced aeration under cover .



aided by powerful fans & temp-monitored



Auto temp & fan monitoring/process control



Screening mature compost

Bagging/palletising



Testing green compost to PAS 100 2011 & Vital Earth spec's



Uses (& more benefits!)

Garden Products NB Multipurpose Compost



Kayak® Growbag



- new registered design
- deeper rooting
- easier watering
- fuller flavour

1st 100% peat-free ericaceous compost





Liverwort

Peat-based

Peat-free

Chemical controls: none
Treatment: 10p – 15p/pot

Barcham Trees





Topsoil manufacture in situ



10 years later



TORO

Turf Care

Green Roofs

- all recycled media
- ecological benefits
- environmental benefits
- human benefits





Sedum Roof

Meadow Roof

Harper Adams Uni' College - 12 weeks



**Meadow Roof - 12
weeks after sowing**

Composting – what's the point?

- **save Carbon**
- **reduce landfill**
- **reduce climate change**
- **improve and protect soils**
- **protect peat moors**
- **reduce importation**
- **reduce pesticide usage**

What can we do?

- **recycle and help recycling**
- **use more compost/less water**
- **use less chemical fertilisers/
feed the soil, use less oil**
- **buy peat-free**
- **grow peat-free**
- **buy UK-grown**
- **spread the word**

Minimal environmental (carbon) footprint

- sustainable
- UK-sourced
- natural
- no added chemicals
- peat-free

Thank you

Any questions?

www.thegrenergardener.com

