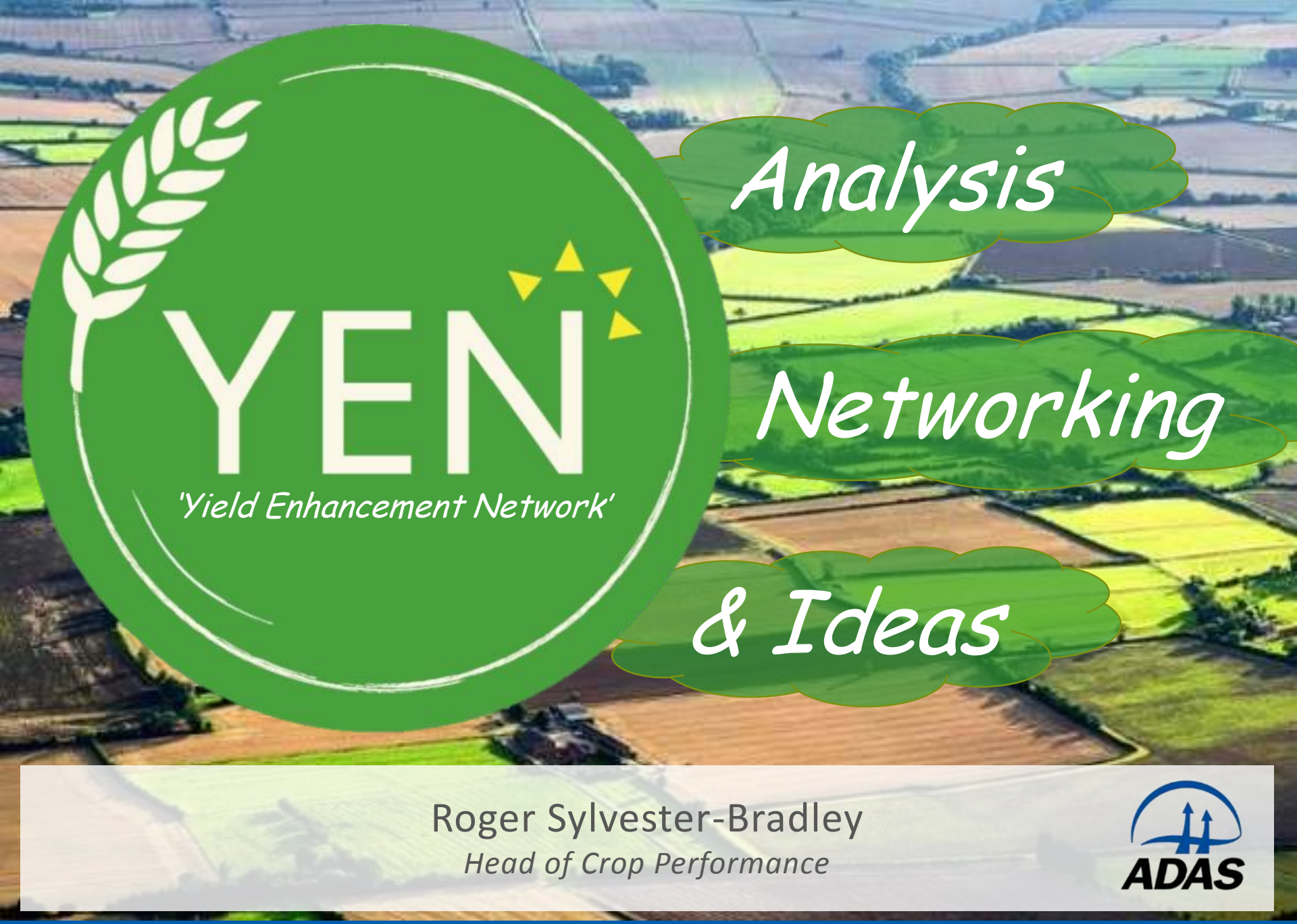
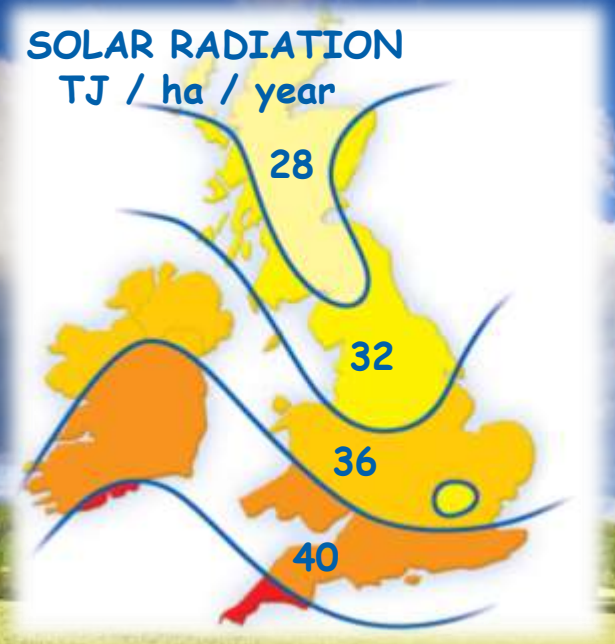
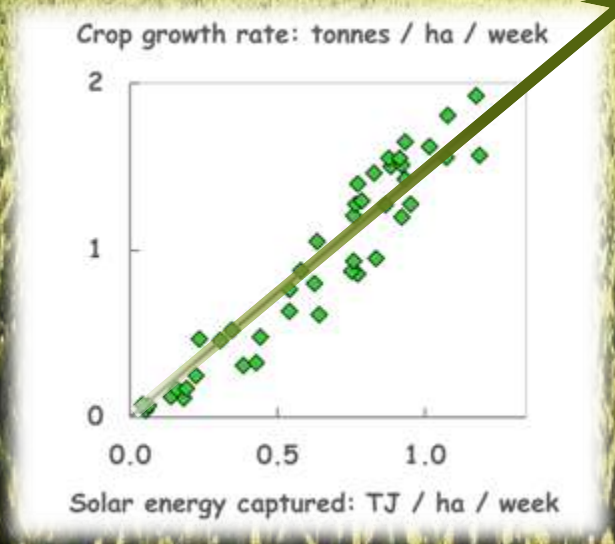


Roger Sylvester-Bradley
Head of Crop Performance
ADAS





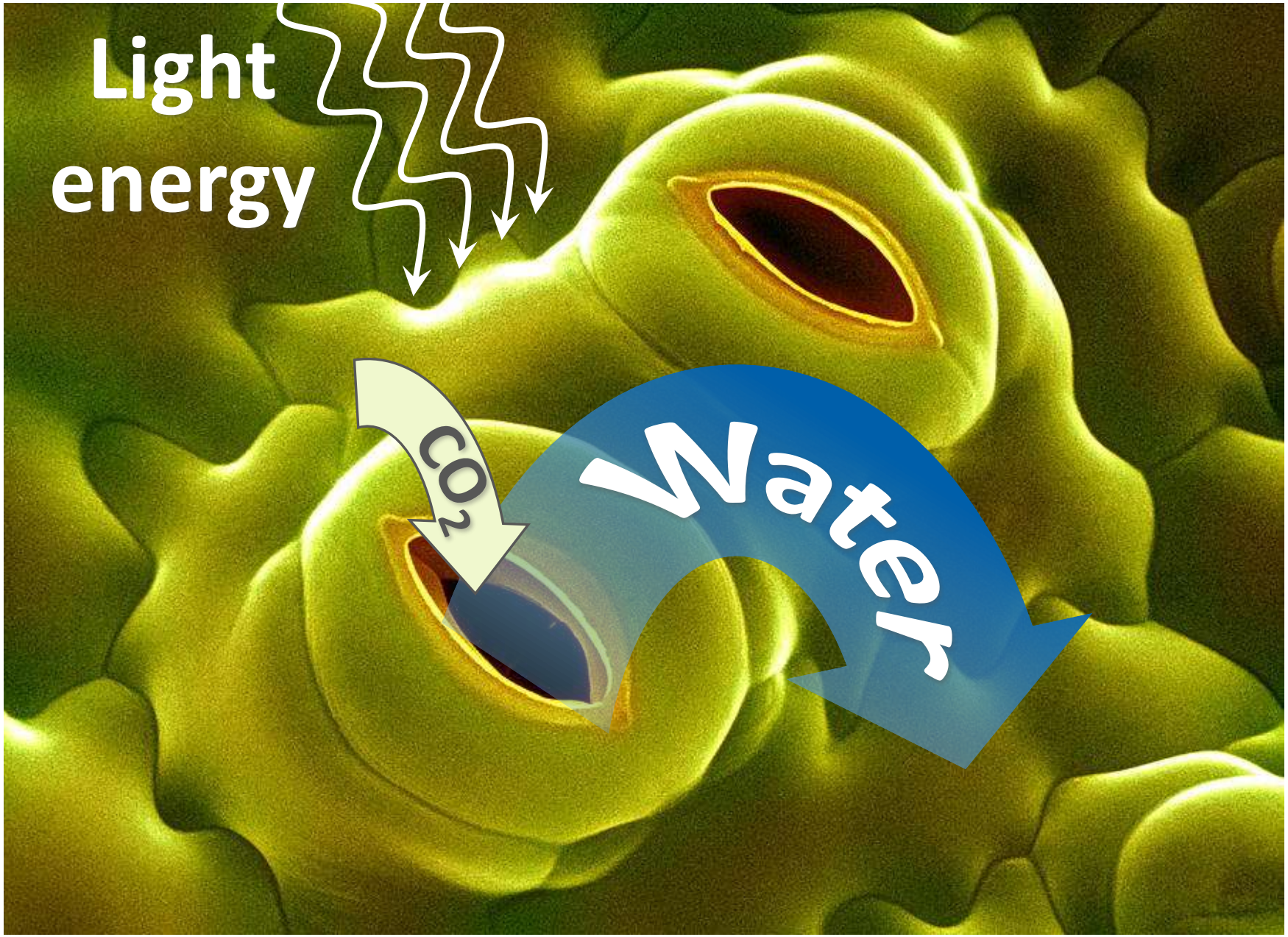
1.4 tonnes / TJ

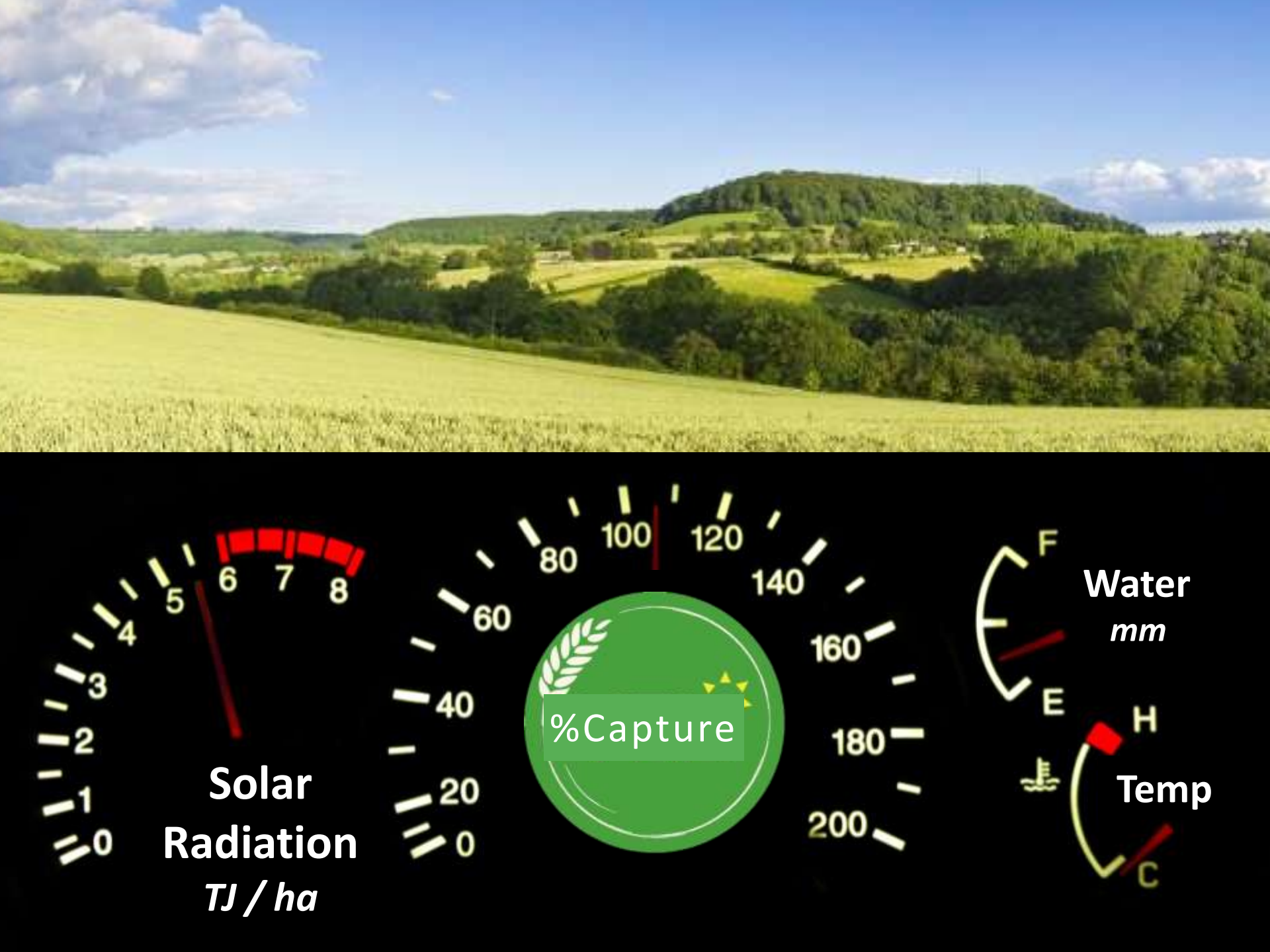
How ma / bright

1 bright summer day

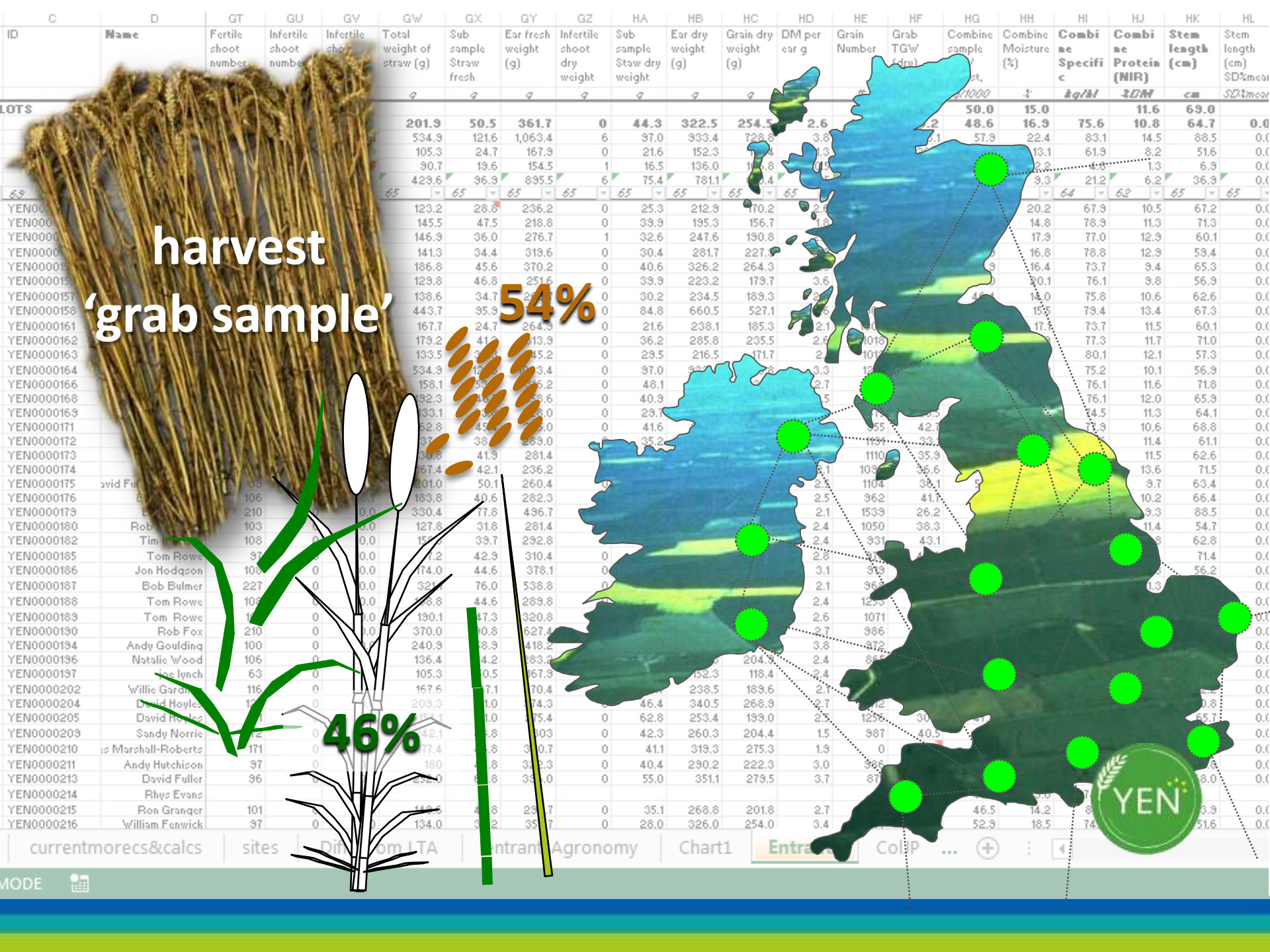
1 dull summer day

1 m^2


Light energy
CO_2
Water


0
1
2
3
4
5
6
7
8
Solar
Radiation
TJ / ha
0
20
40
60
80
100
120
140
160
180
200
%Capture
F
E
Water
mm
H
C
Temp


harvest
‘grab sample’


harvest
'grab sample'
54%
46%
YEN

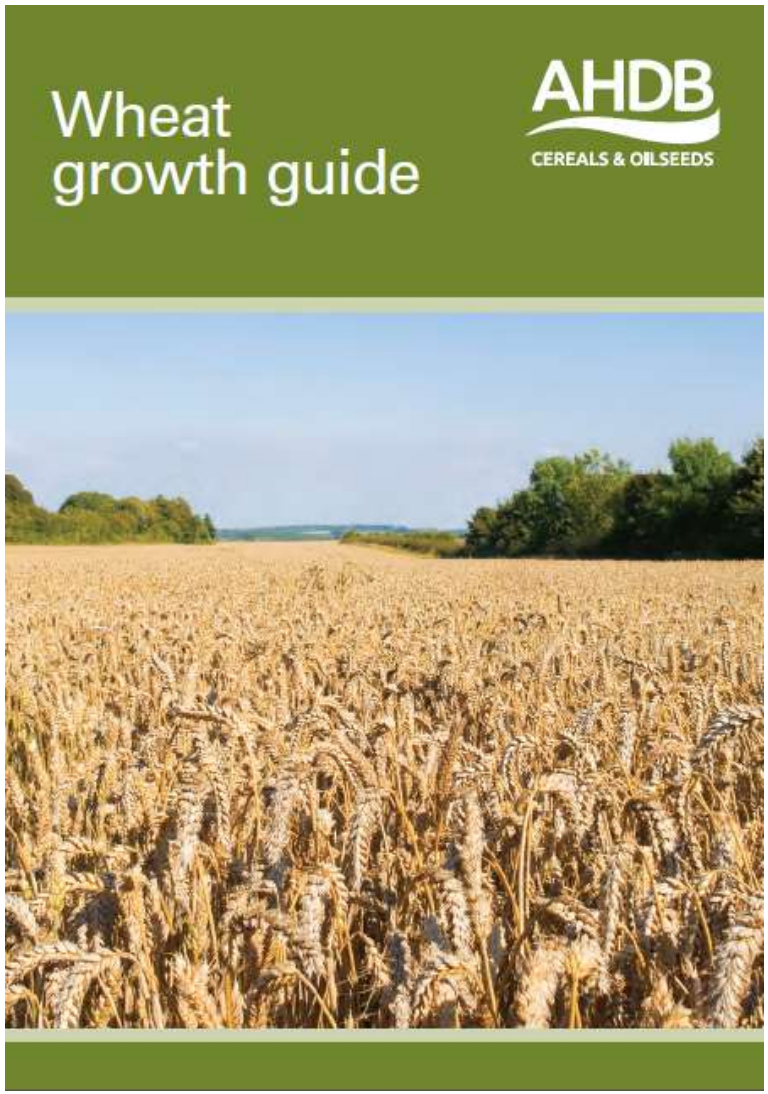
Video here

Farm Decisions

- Soil & Climate
- Rotation
- Cultivations
- Species
- Variety
- Establishment
- Nutrition
- Protection
- Harvesting

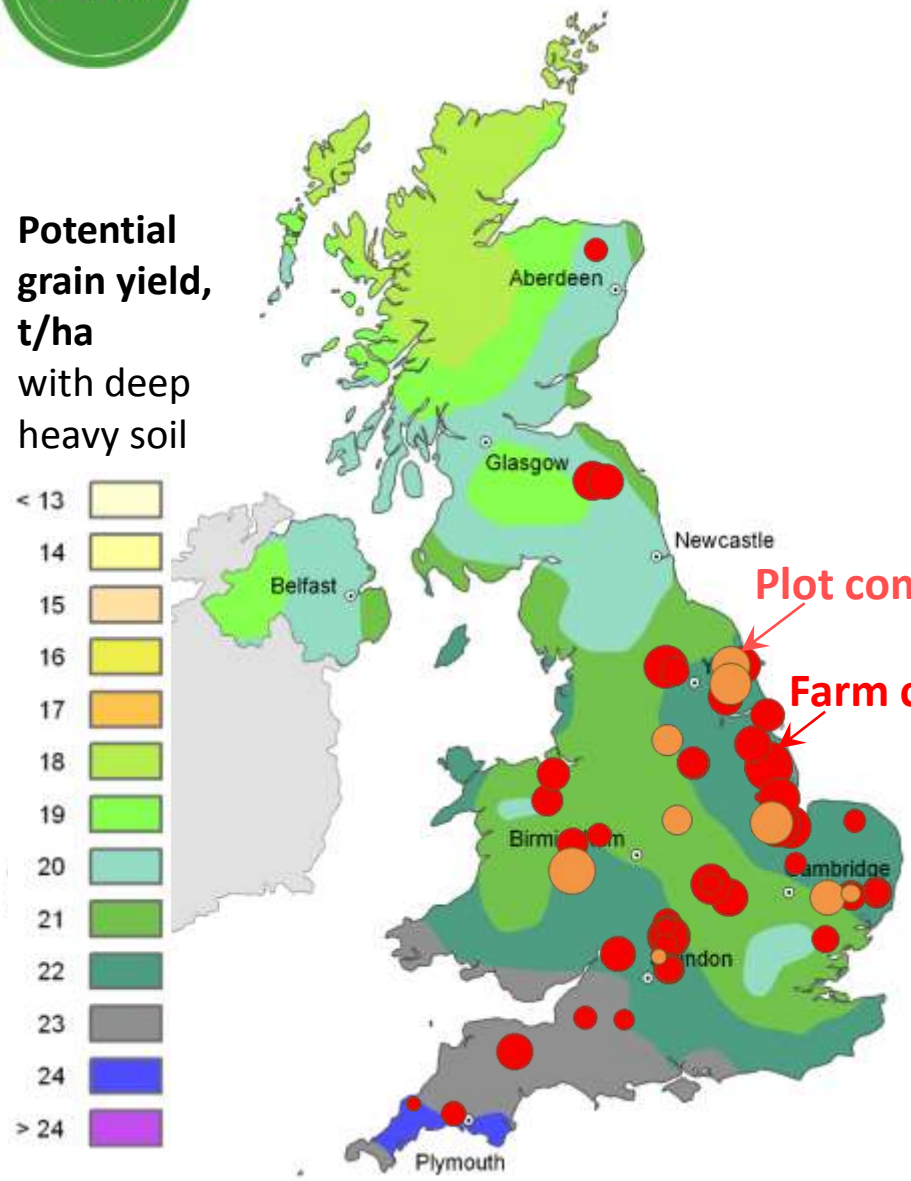
Light capture … and water capture

… using benchmarks in the AHDB Wheat Growth Guide



ADAS

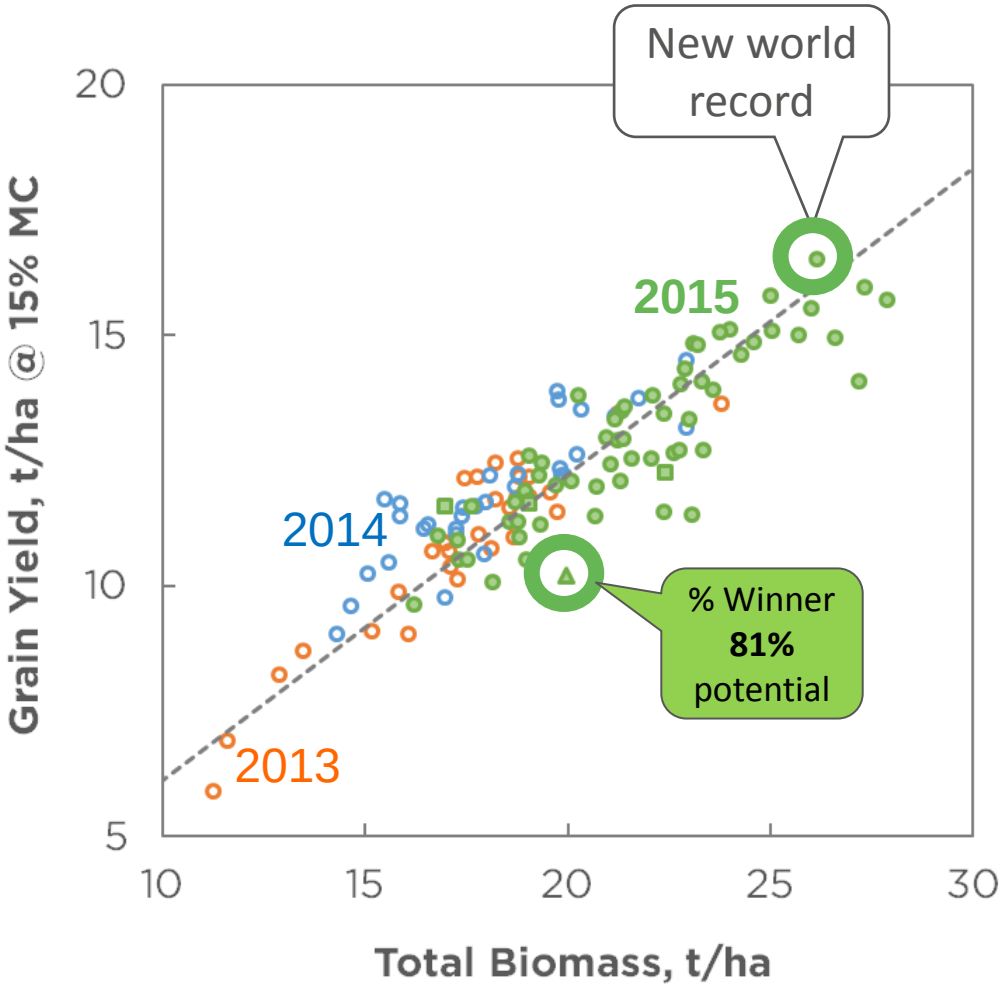
Competition 2013, 2014 & 2015



Explanatory power, R^2

• Ears / m^2	0.15
• Grains / ear	0.01
• Grains / m^2	0.32
• TGW, g	0.12
• Harvest Index	0.00
• Grain N, %DM	0.01

Competition 2013, 2014 & 2015



Summary

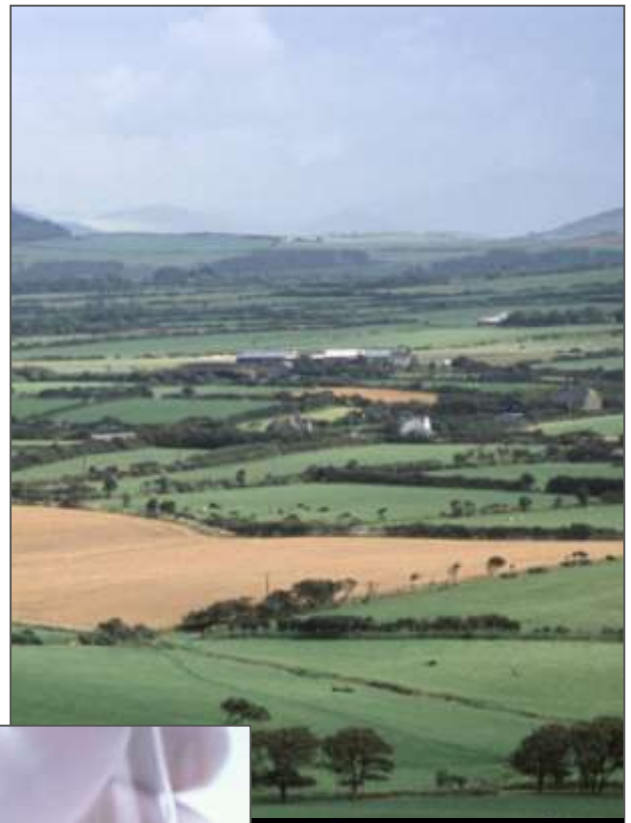
- UK has much unfulfilled potential
  - Biomass production is crucial
  - Focus on *Canopy &/or Root management*
- Better crop monitoring & analysis … to develop *high yield strategies*
- Faster yield progress needs ..

Farm ⟷ Lab.

Partnership

… a shared ‘language’

Concepts, Metrics & Targets.



Thank You