

Adopting new approaches to crop protection



Ian Matts, Brixworth Farming



Agenda

- Introductions
- Challenges
- Potential solutions:
 - Cover cropping
 - Catch cropping
 - Living Mulches
 - Companion cropping
 - Nutrition / Biostimulants



Farm Details

- Joint Venture in Northamptonshire
- 6 Farms – 4 Shareholders & 2 Crop Pool
- 2,000ha
 - 1,550ha combinable cropping
 - 450ha Stewardship
- Hanslope & Denchworth clay
- LENS funding – Nestle, AW & Pepsico
- ClieN Farms



Challenges

- Increased reliance on herbicides
- Loss of active ingredients
- Reduction in efficacy – resistance
- Weather
- Increased pest pressure
- Increased grassweed pressure
- Increased costs
- Reduced margins
- Labour shortages





Cover crops





Catch Crops





Living Mulch







Companion
Crop





Knowledge grows

Nutrition for Plant Health

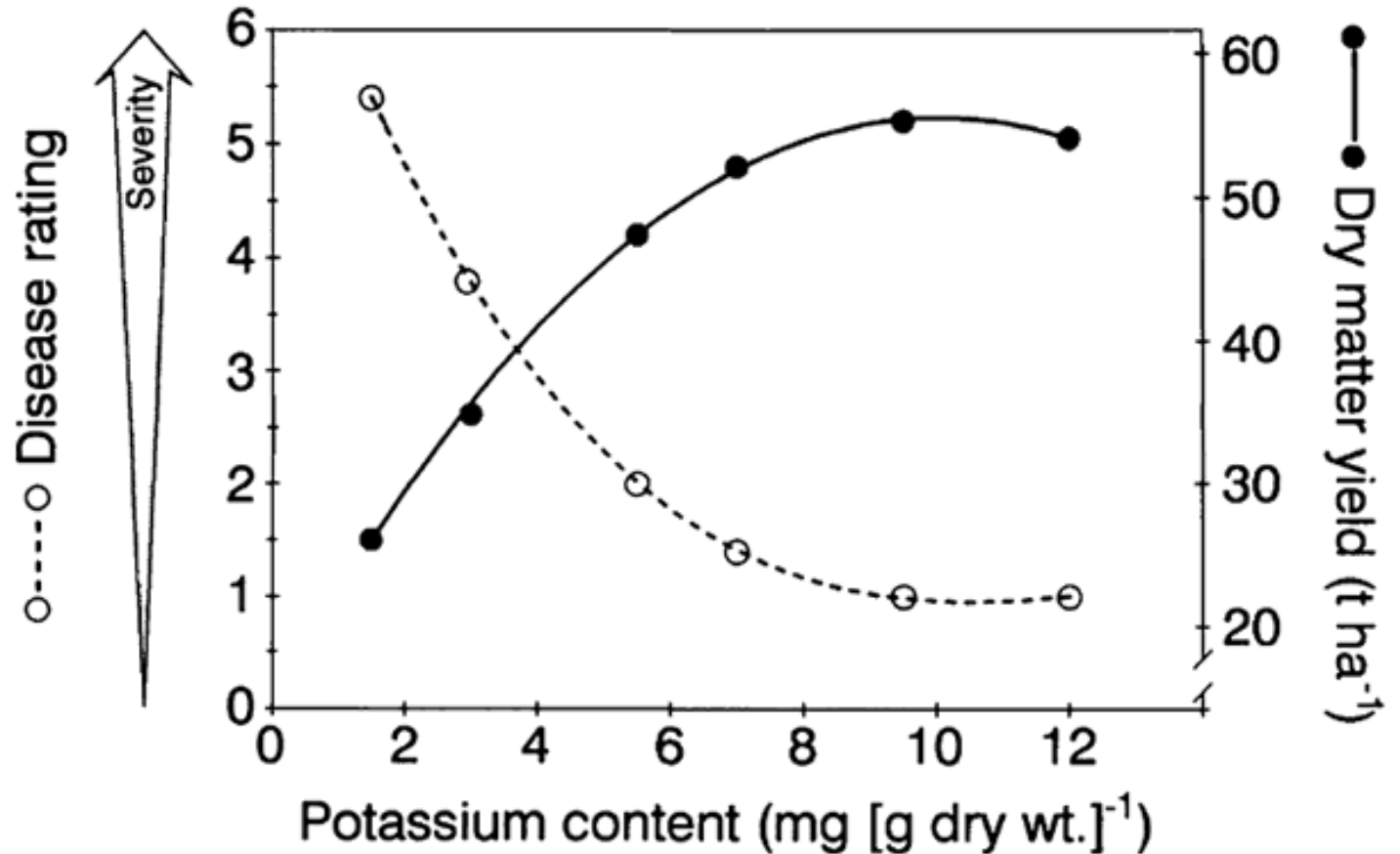
Ian Matts, Yara

Nutrition

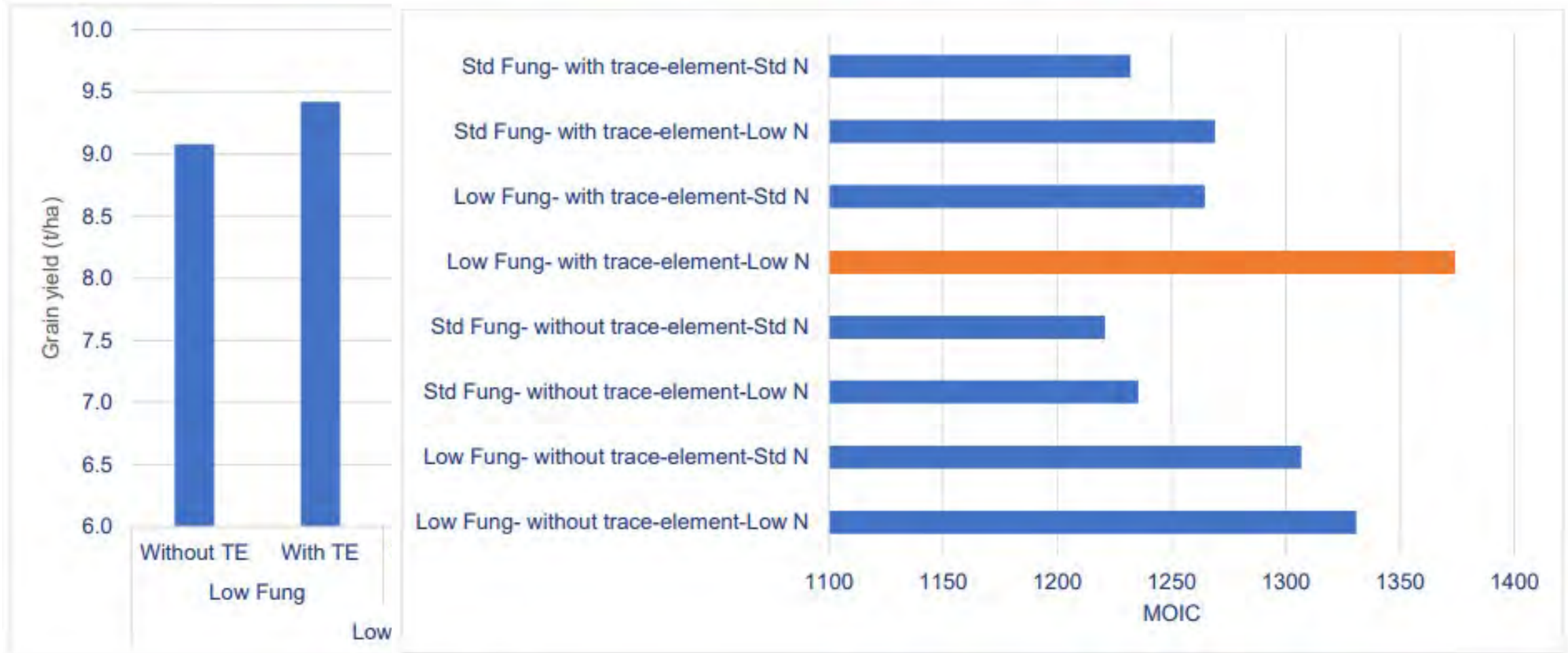
- Nitrogen Use Efficiency
- Potash
- Calcium
- Silicon
- Micronutrients

Nitrogen & Potash

- From over 200 literature reports on the role of potassium on plant diseases 70% improved plant health
- The uptake of nitrogen can increase susceptibility to disease and pest, due to the rapid growth response, the changes in tissue colour and increase in sugars.



The interaction of trace elements within a reduced fungicide and nitrogen programme in WW



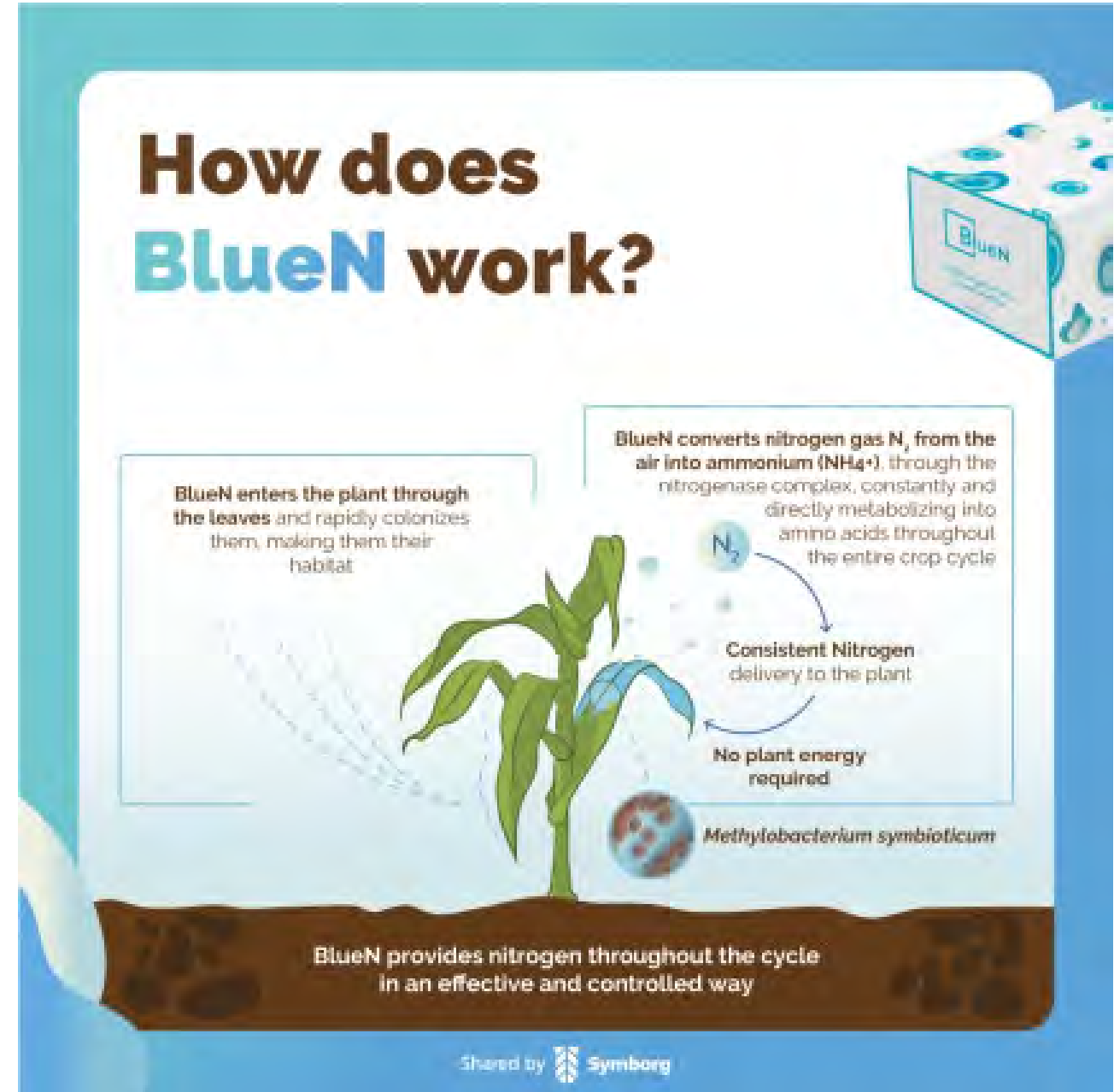
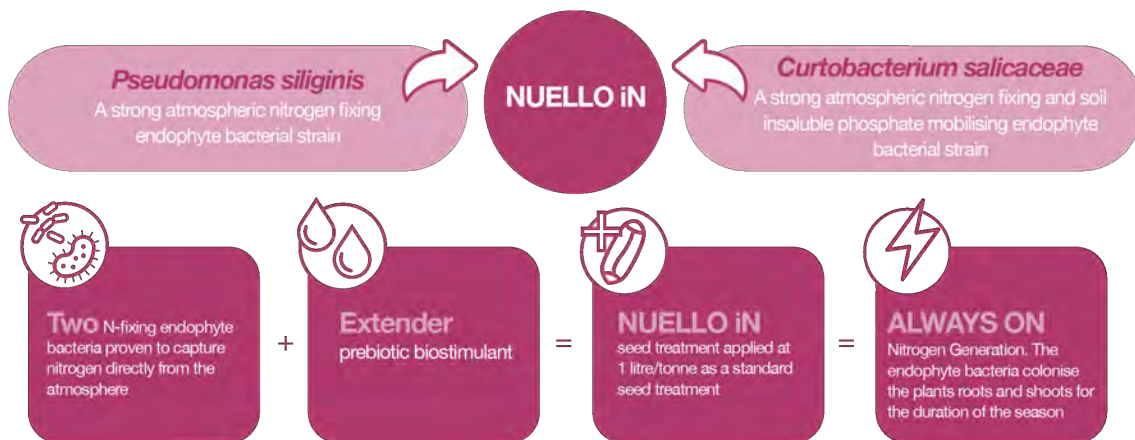


Nutrition

- Biostimulants
- Endophytes
- N fixing bacteria

Nuelloin & BlueN

- **Nuelloin** - Endophytes enabling crops to fix N, sequester P, K & Zn, and better withstand drought stress
- **BlueN** - a nutrient efficiency biostimulant containing bacteria that fix nitrogen from the air, converting it for the plant



Future considerations

- Regen Farming...
- Premium opportunities
- Costs
- Efficacy / Resistance / Product availability
- Sustainability
- NUE
- Carbon (footprint & sequestration)



Adopting new approaches to crop protection



www.brixworthfarming.co.uk

Ian.matts@brixworthfarming.co.uk

@BFC_Farming   

@Ian_Matts 

