



Reducing footprint of global grain production

Stephan Brunner Global Key Relation Manager

Working Together for sustainable agriculture

food chain partnership



More from Less – sustainable & safe!



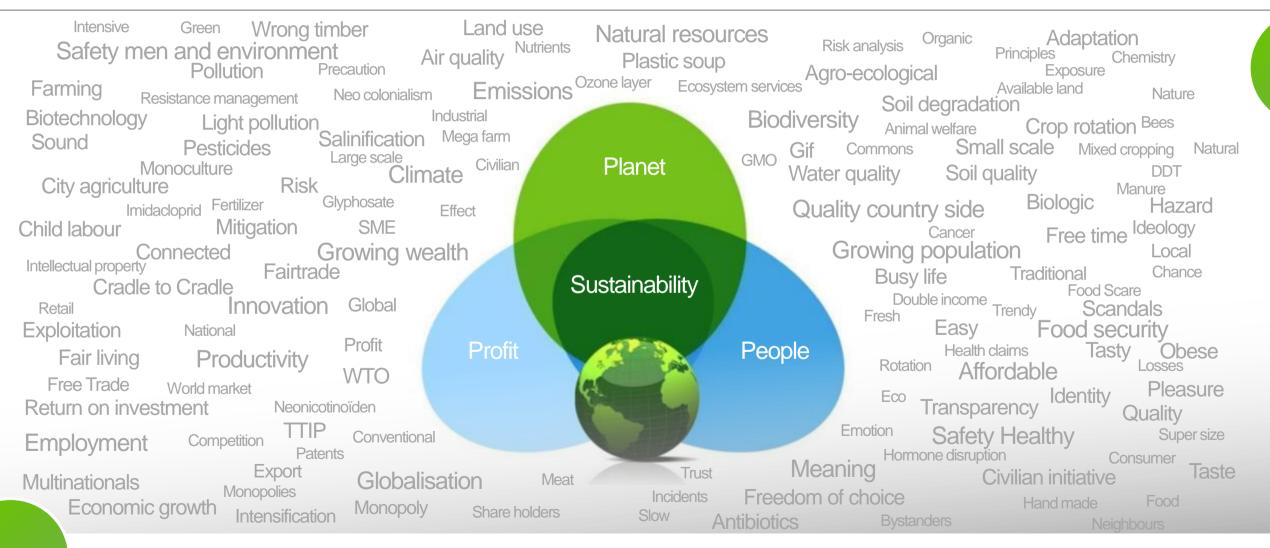
Increasing productivity and decreasing environmental impact



Debate on farming and food

A complex and challenging debate





Discussion often black and white

Sustainability needs an open mind



Organic

Local

SME

Academia

Soil

Small scale

Green

Classic breeding

Conventional

Global

Multinational

Industry

Substrate

Large scale

Chemistry

GMO

Romanticising farming It is getting harder to talk about innovation





The importance of controlling Fusarium in wheat

Yield and quality impacts



Fusarium spp. infections can:

- cause yield reductions
- produce mycotoxins (e.g. DON) threatening food & feed safety

Infection risk significantly increased by:

- warm & wet conditions
- crop rotation with susceptible crops (corn & wheat)
- reduced tillage practices

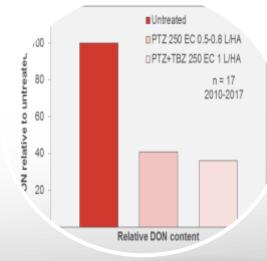
Fungicides are important in the **Integrated Management** of Fusarium spp.

Triazoles (e.g. Protioconazol or Tebuconazol) are the most effective fungicides for the control of Fusarium spp.

and can significantly reduce the presence of

mycotoxin.



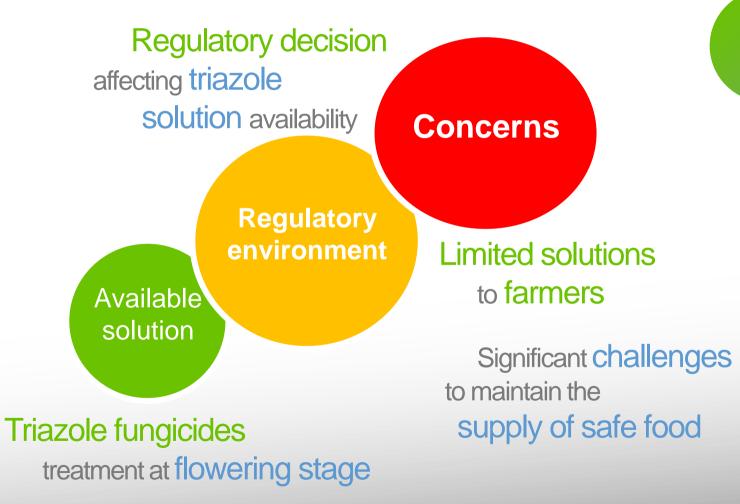


Fungicides are key to controlling mycotoxins BUT, their availability on the EU market is under threat!



Risks from mycotoxins — A threat to Food & Feed safety — grain quality & yield reduction (volume)





....Let's talk about Sustainable Agriculture

Providing on the needs here and now, and there and then





Sustainability in Action – Tour de Farm On Ambassador Farms





Tour de Farm – Knowledge sharing

Operator Safety through innovation & Creating awareness





Tour de Farm – Knowledge sharing

Emission: PhytoBac, filling/rinsing, spray technology





Knowledge sharing – Biodiversity



Supporting biodiversity with nesting places for wild bees and flower strip



Knowledge sharing – Soil

Soil compaction: Impact of Tire types & pressure





Knowledge sharing – Cropping & Technology Crop Protection / Integrated Crop Management





Knowledge sharing – Cropping & Technology Digital Farming











Farmer Training On Good Agronomic Practices & Certification Support

food chain partnership





BayG.A.P. farmer training & certification support



Bayer's contribution

Today, **Certifications** are key











But many farmers lack knowledge about how to implement best practices and, therefore, to achieve demanding but enabling certifications





BayG.A.P. Training

BayG.A.P. Farm Advice

BayG.A.P. Certification Support

Our service contribution to accelerate the implementation of Good Agricultural Practices around the world and to connect economic success along the food value chain.

Valore Program in Brazil To promote good agronomic practices



A step-wise approach and continuous improvement



Guidance in **legal** requirements, GAPs, environmental preservation and labor conditions



Specific market requirements



International requirements e.g.: Bonsucro, GLOBALG.A.P., RTRS, etc.

Current Status

Implementation of Valore covers around 430,000 hectares



In cooperation with many certification schemes, to target different crops, partners and area sizes



Bayer / Cefetra Food Chain Partnership Initiative

On Sustainable Soy production

Assist farmer in the process towards Sustainable Soy production & support in achieving CRS and RTRS certification

food chain partnership

Connecting responsible soya initiatives

South-America

Europe and







ForwardFarming

Engaging in open dialogue on Sustainable farming

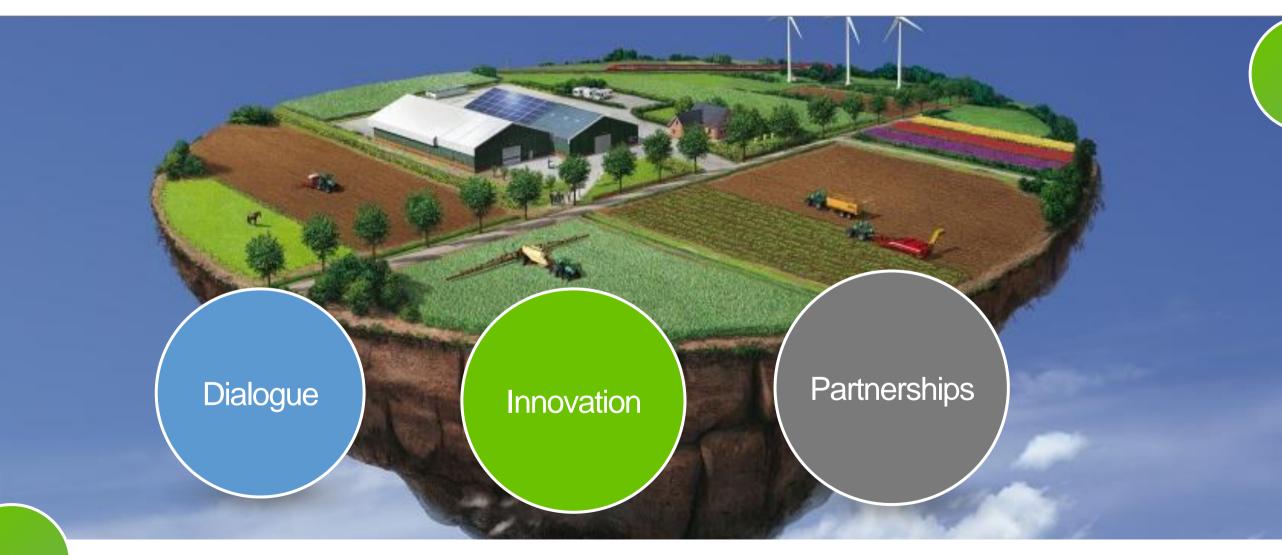
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ForwardFarming

Bringing sustainable agriculture in practice





Integrate Crop Management

A solid basis for sustainable agricultural production





Three themes

Clean and Safe, Working with Nature and Innovation





On field and farm yard







Dialogue on sustainable agriculture
Dialogue, information and education in the field

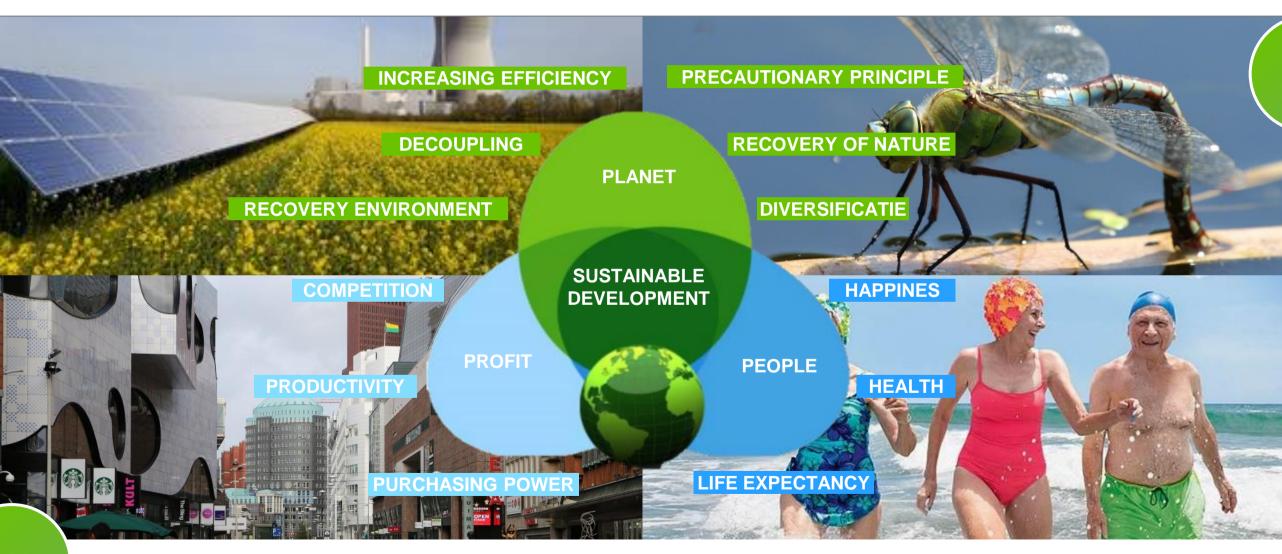




SUMMARY - We are on the right track

A lot has already been accomplished











Working Together for sustainable agriculture

Thank You.

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