

PLANT BREEDERS' RESPONSE TO GLOBAL CHALLENGES

Plant breeders develop improved plant varieties which can:

- Withstand pests and diseases, with fewer crop inputs



- Stabilize and increase yields, despite a changing climate



CLIMATE CHANGE



PESTS

GROWING POPULATION

LESS ARABLE LAND

BATTLE FOR WATER

- Maximize resource use efficiency - water, land, nutrients



CLIMATE CHANGE

2016 **14.7 °C** ↗ 2050 **16.0 °C**

Increase of average global temperature

PESTS

2016 **10-15%** ↗ 2050 **20-25%**

Increase in the amount of global crop production lost to pests

BATTLE FOR WATER

2016 **3,500 km³** ↗ 2050 **5,500 km³**

Rise of global water demand

GROWING POPULATION

2016 **7.3 bn** ↗ 2050 **8.8 bn**

Rise of global population

LESS ARABLE LAND

2016 **0.20 ha** ↘ 2050 **0.15 ha**

Decrease in use per capita