



Global warming and climate change - positive and negative effects on agricultural crops

POSITIVE

increase in productivity
due to temperature rise

reduction humidity stress

opportunity to introduce
new crops

acceleration of maturation

extension of the growing
season

increase in productivity
due to higher CO₂ level

CO₂ „fertilization effect” - some
crops only, with little temporary
benefit to crops in higher latitude
areas

TOTAL EFFECTS OF CLIMATE CHANGE AND GLOBAL WARMING

NEGATIVE

crop damage caused by
high temperatures

drought progressing

drought stress on plants

extreme weather
conditions: fires, storms,
hurricanes, floods, flooding

plant pest invasions

increase in plant diseases

new species of pests
emergence

difficulties in agricultural
production planning

increased level of ozone
toxic to green plants

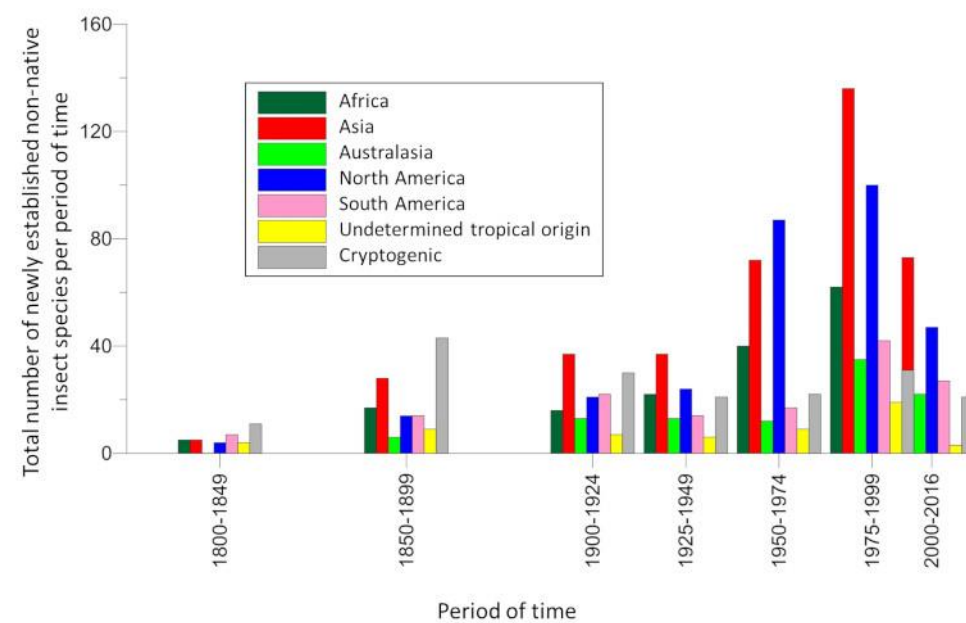
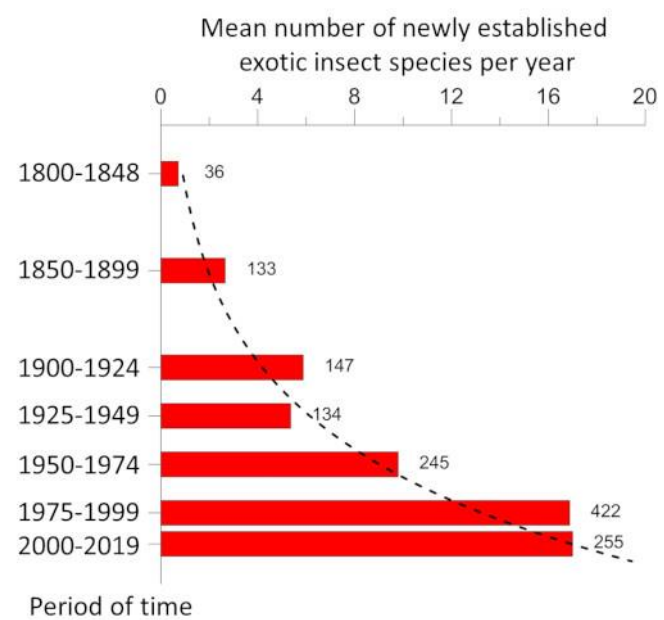
weed growth

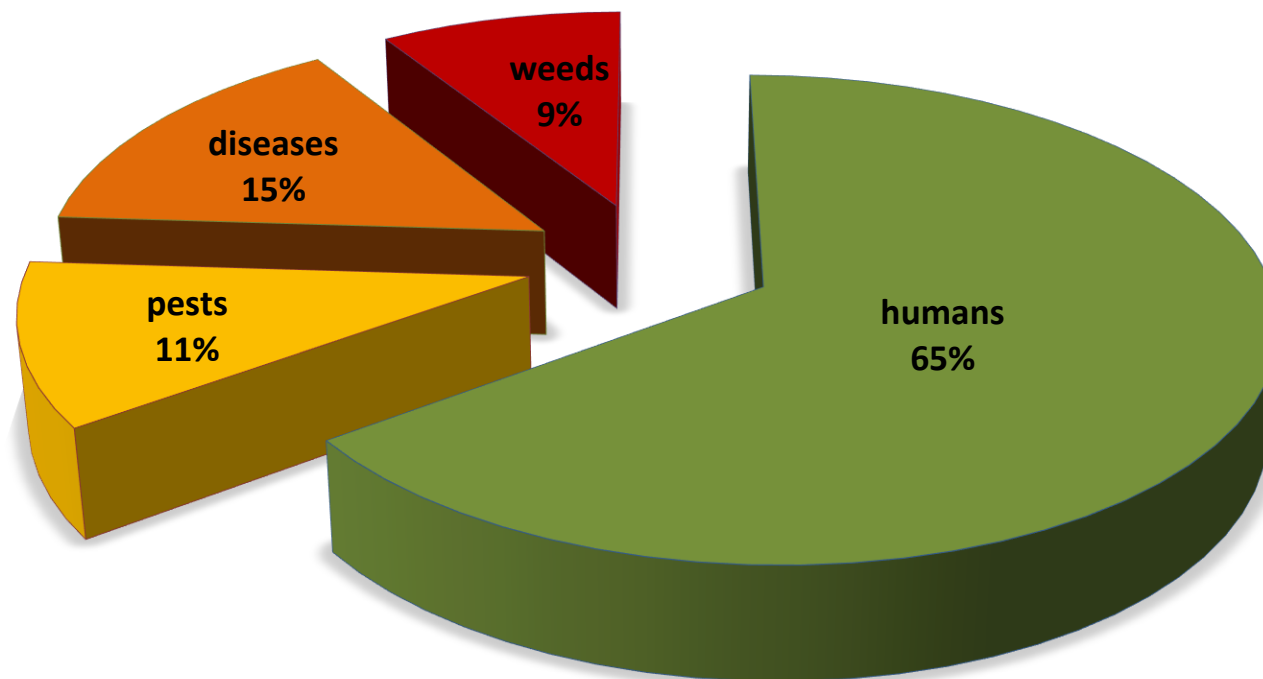
overheating stress of
plants

increased soil erosion

crops in monoculture,
with less adaptability

pesticide effectiveness
decrease





losses caused by plant pests, weeds and diseases in Poland exceed PLN 20 billion per year



...some points for discussion

- holistic climate policy
- sustainable production (plant and animal)
- water management
- breeding varieties resistant to drought, pests and diseases (NGT)
- effective phytosanitary control
- efficient plant protection

Regional and local perspective!