

Increasing Biodiversity *and* Profitability

Creating landscapes that work
for both farmers and the environment

Felix Wäckers





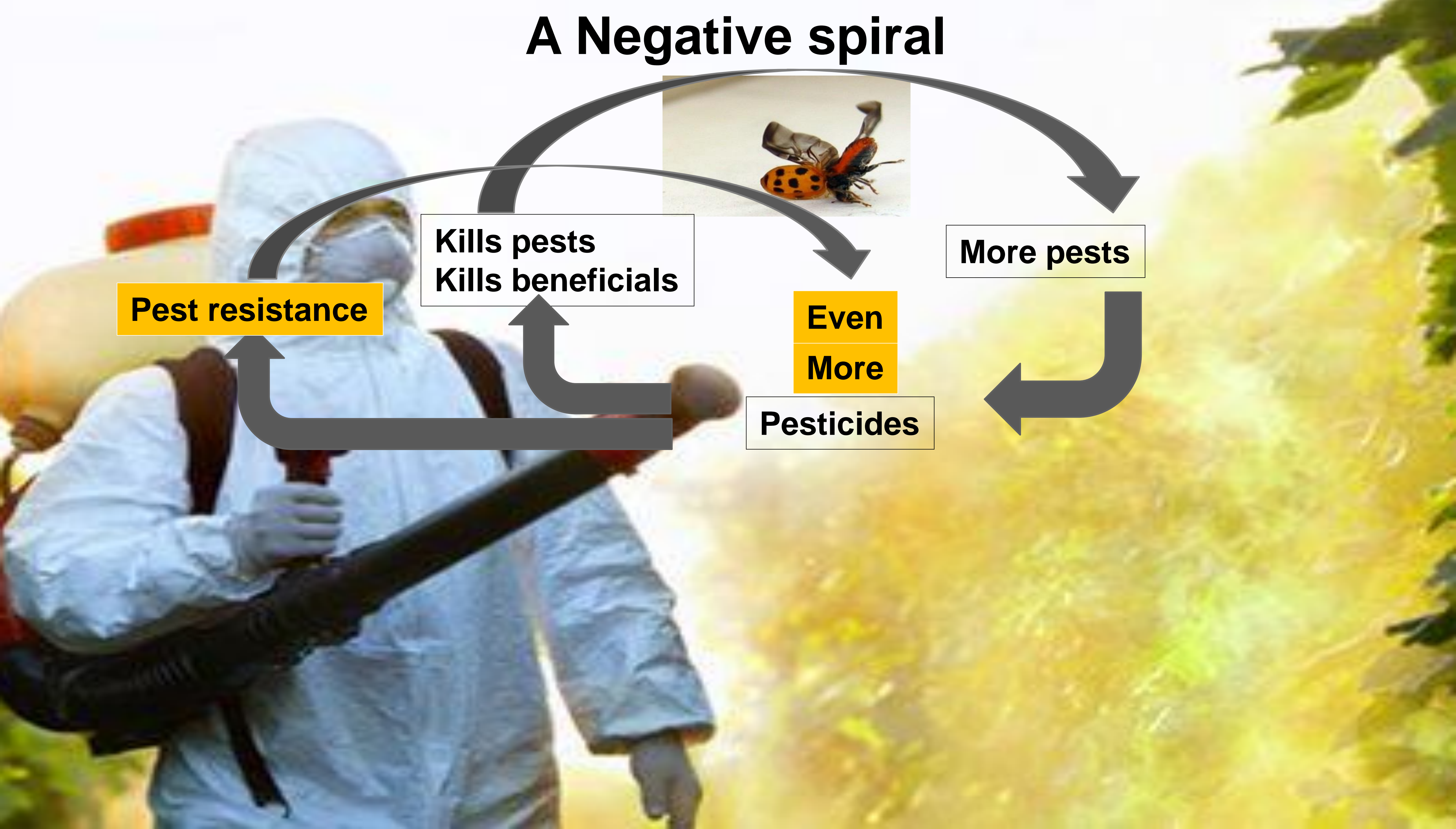
Perceived



Conflict

Yield or environment?

A Negative spiral



Kills pests
Kills beneficials

More pests

Pest resistance

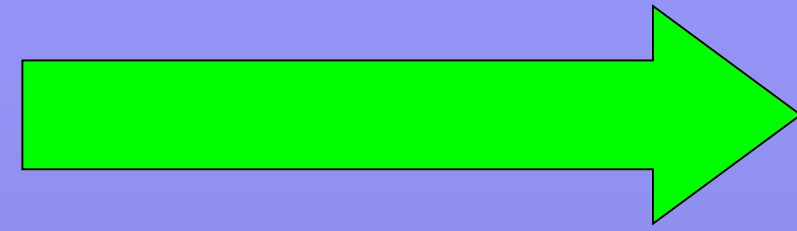
Even
More

Pesticides

Agri Environment Schemes



Agriculture



Environment



Focus on ecosystem services



€320 billion/year



€90 billion/year

(Constanza 1997)

How to optimize Ecosystem Services? Select the right (flowering) plants

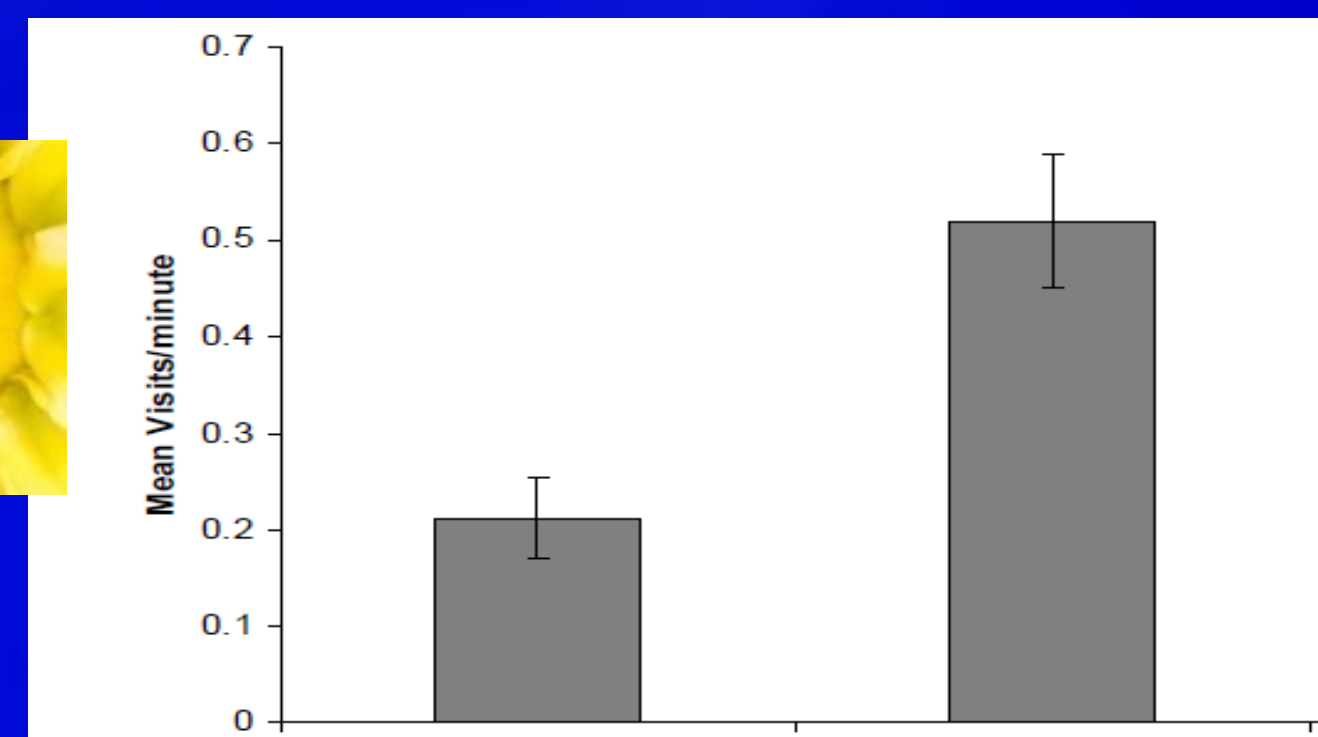
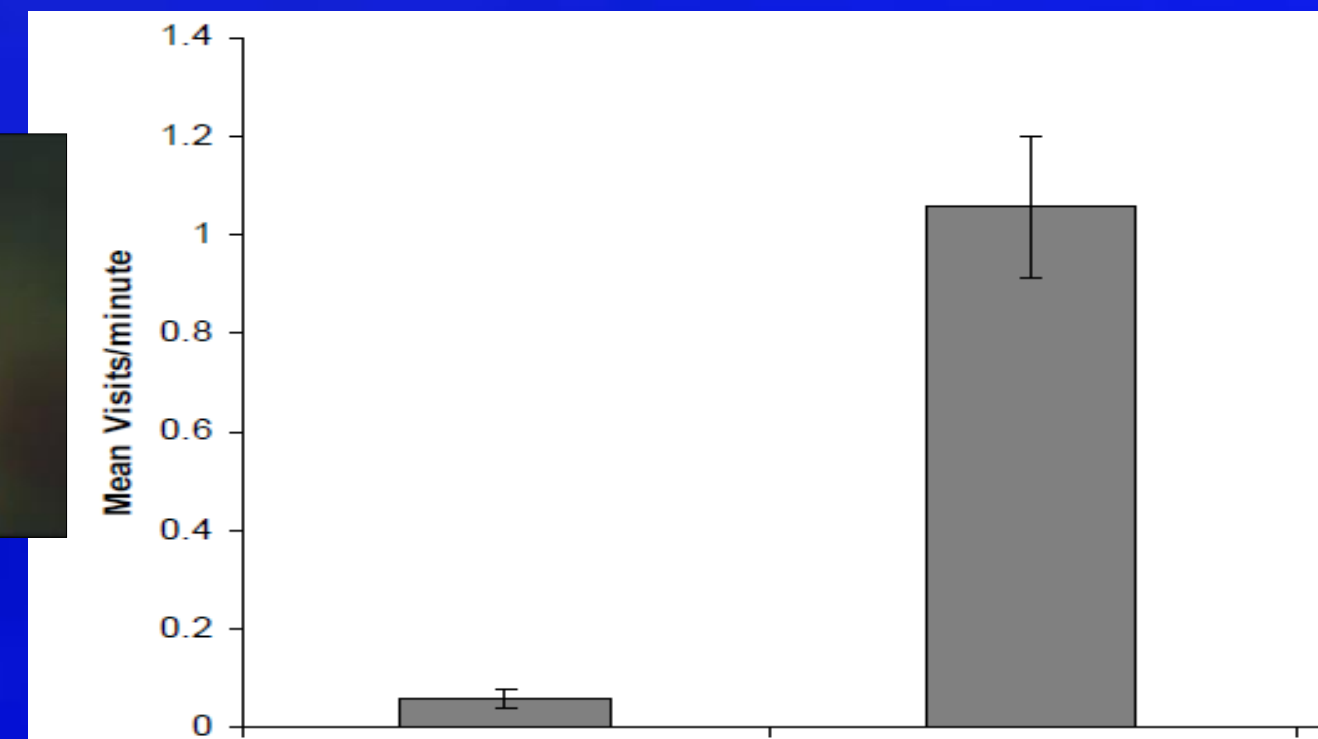
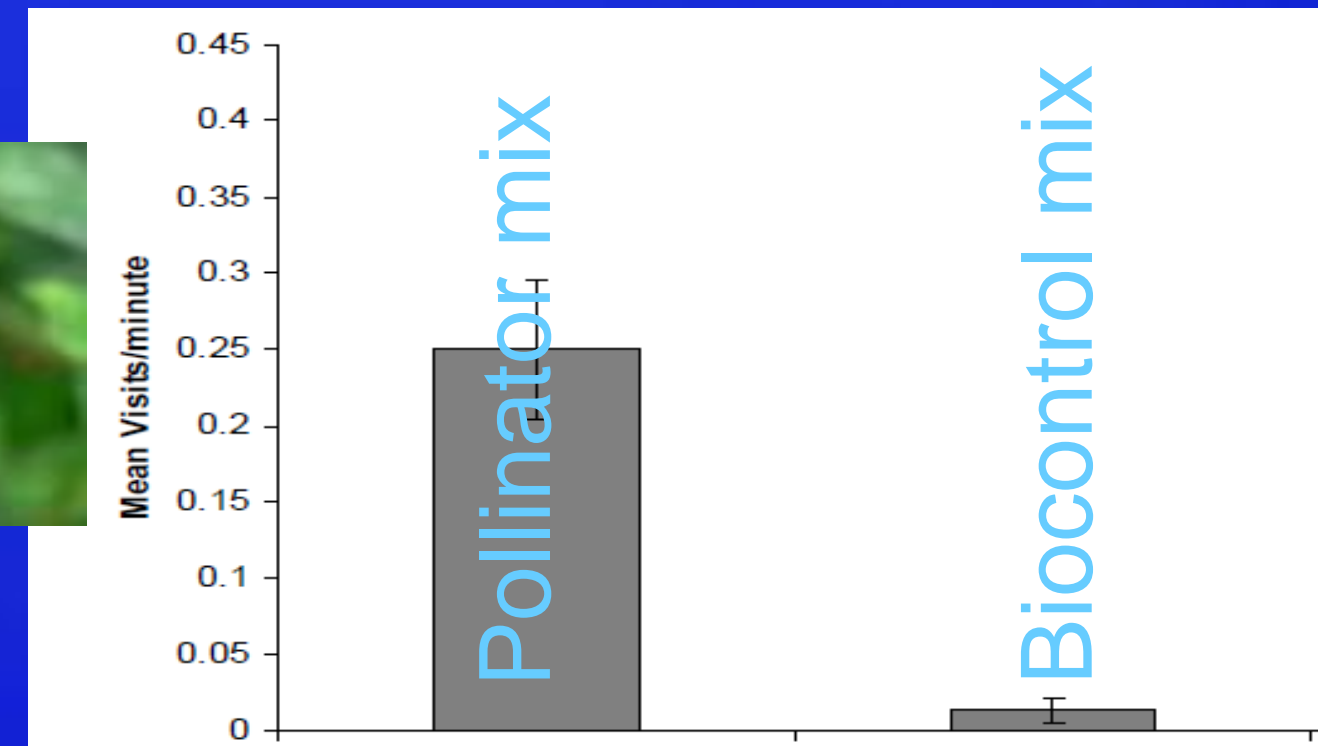


Biocontrol



Pollination

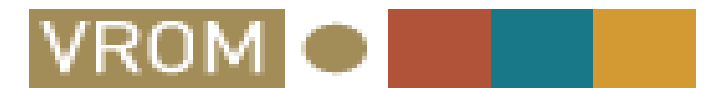
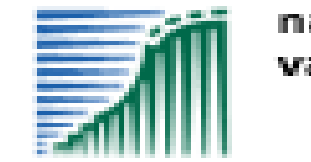
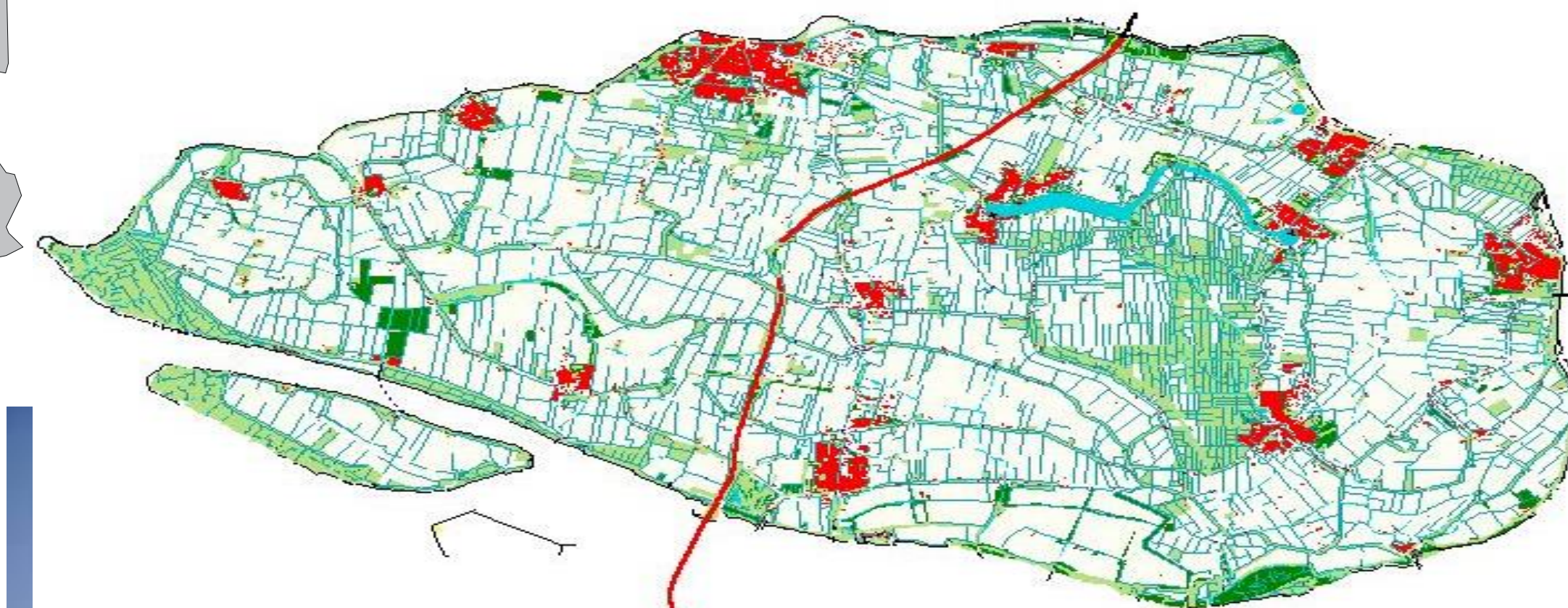
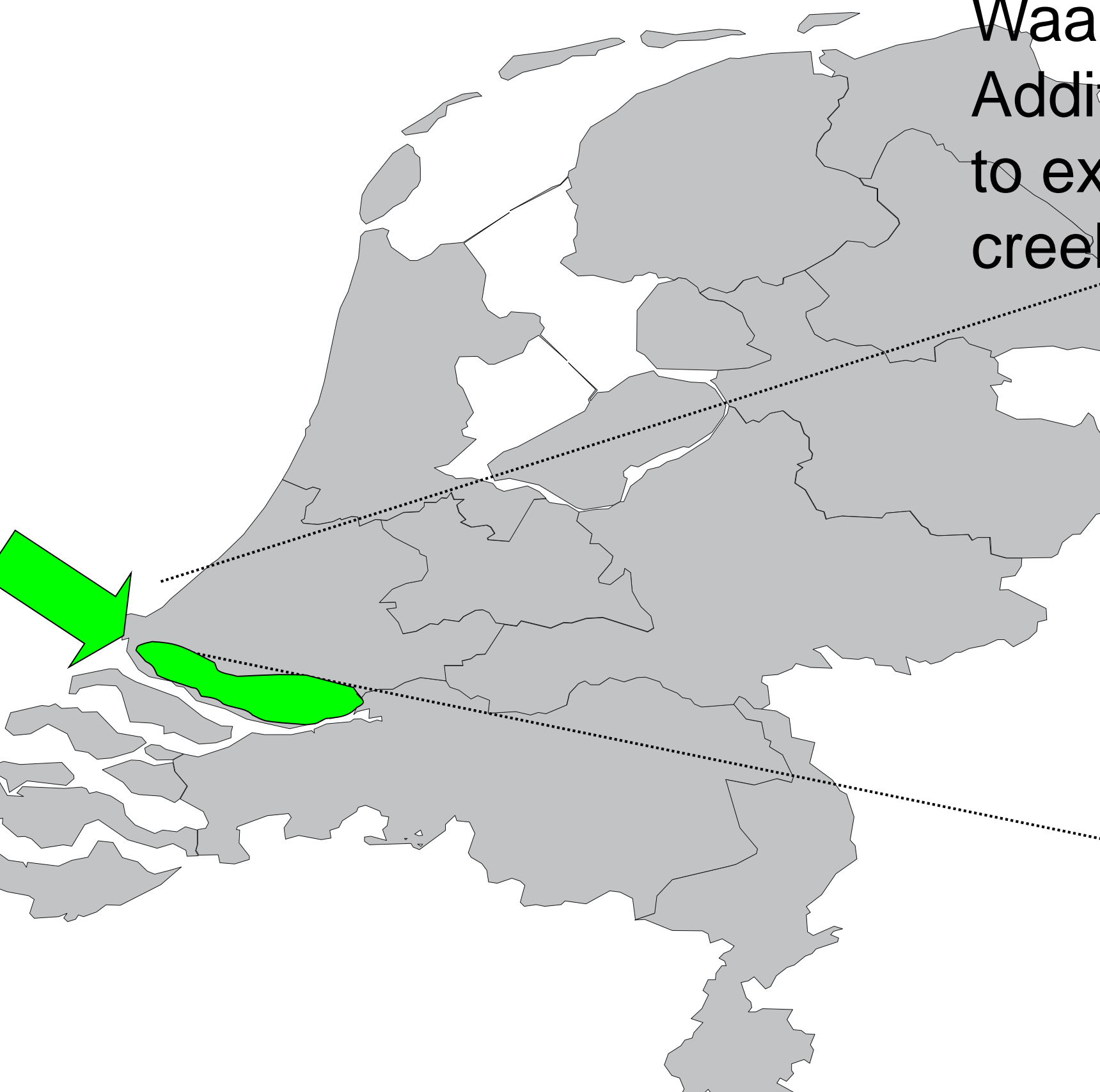




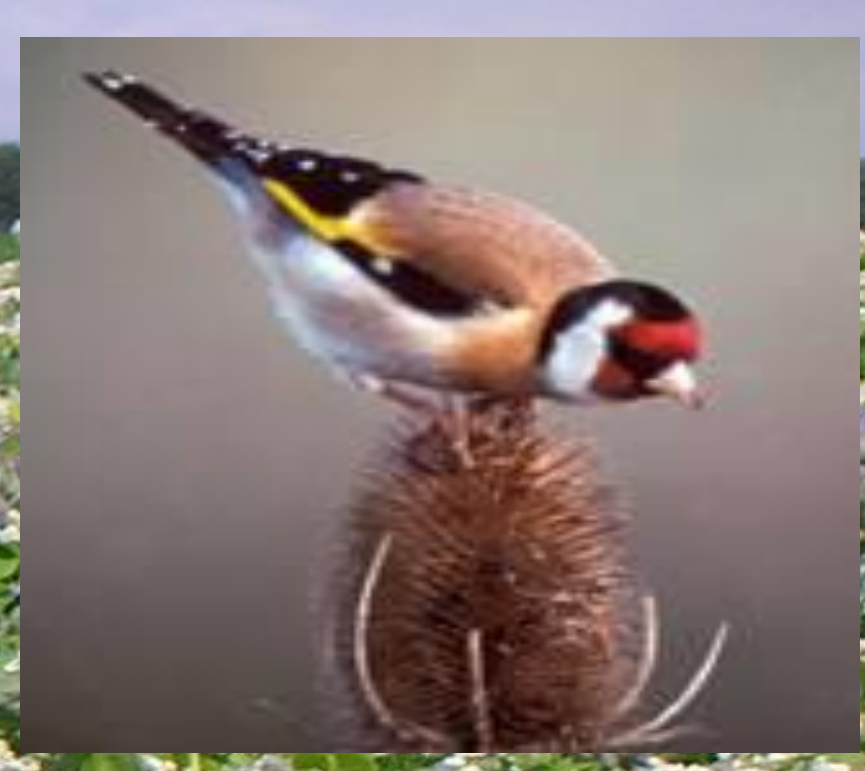
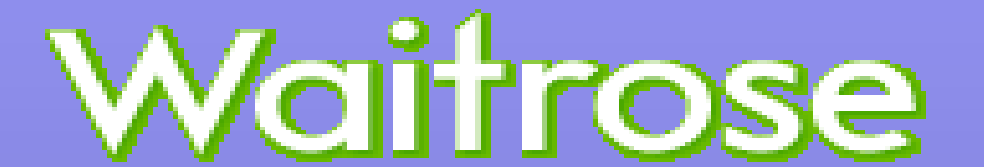
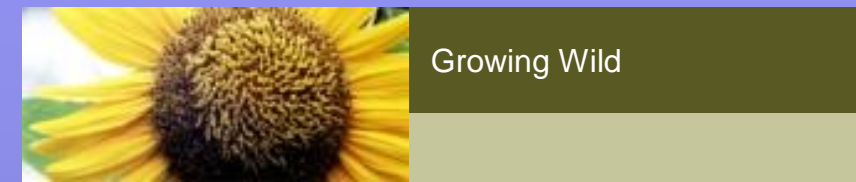
Taking it to the Farmer

FAB (Functional Agrobiodiversity)

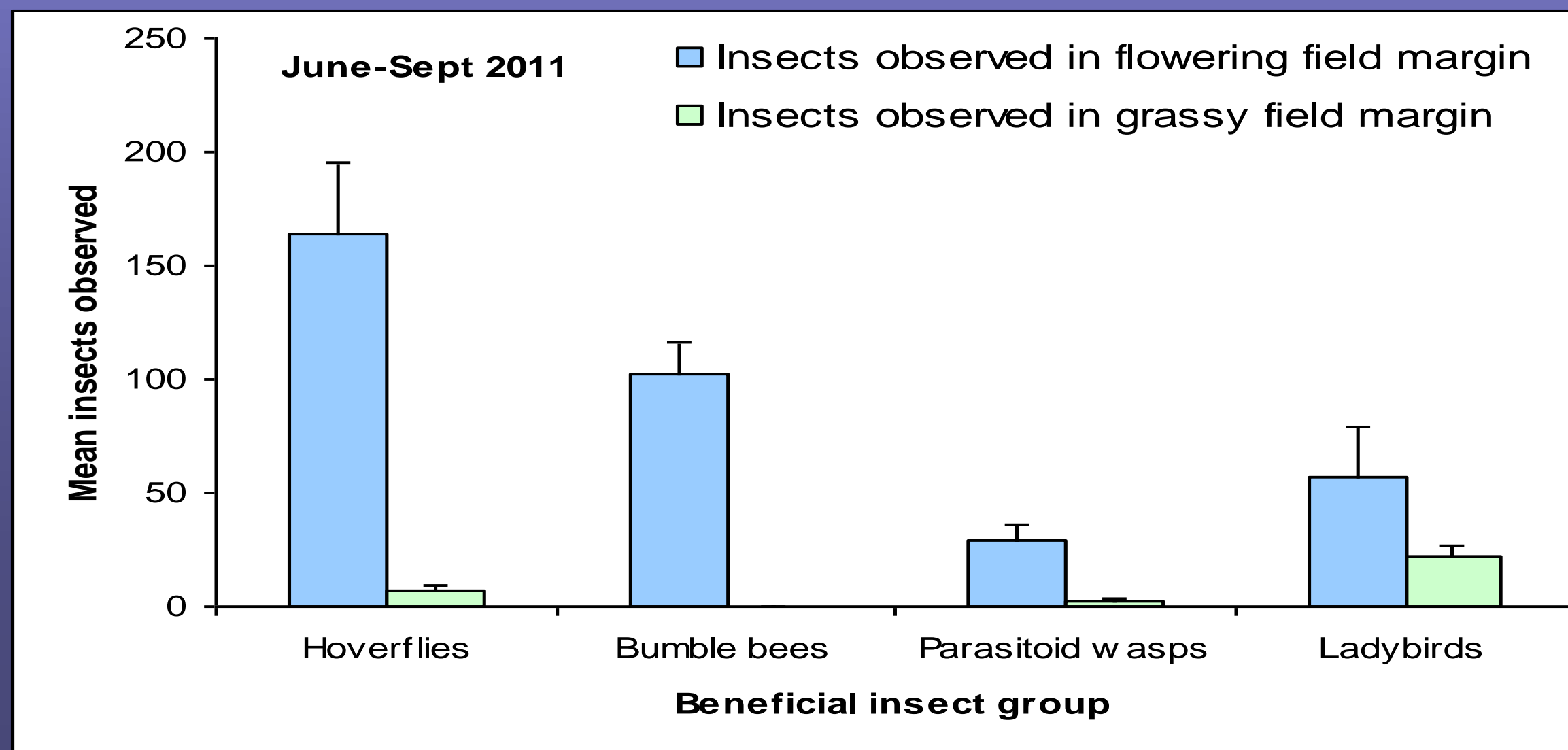
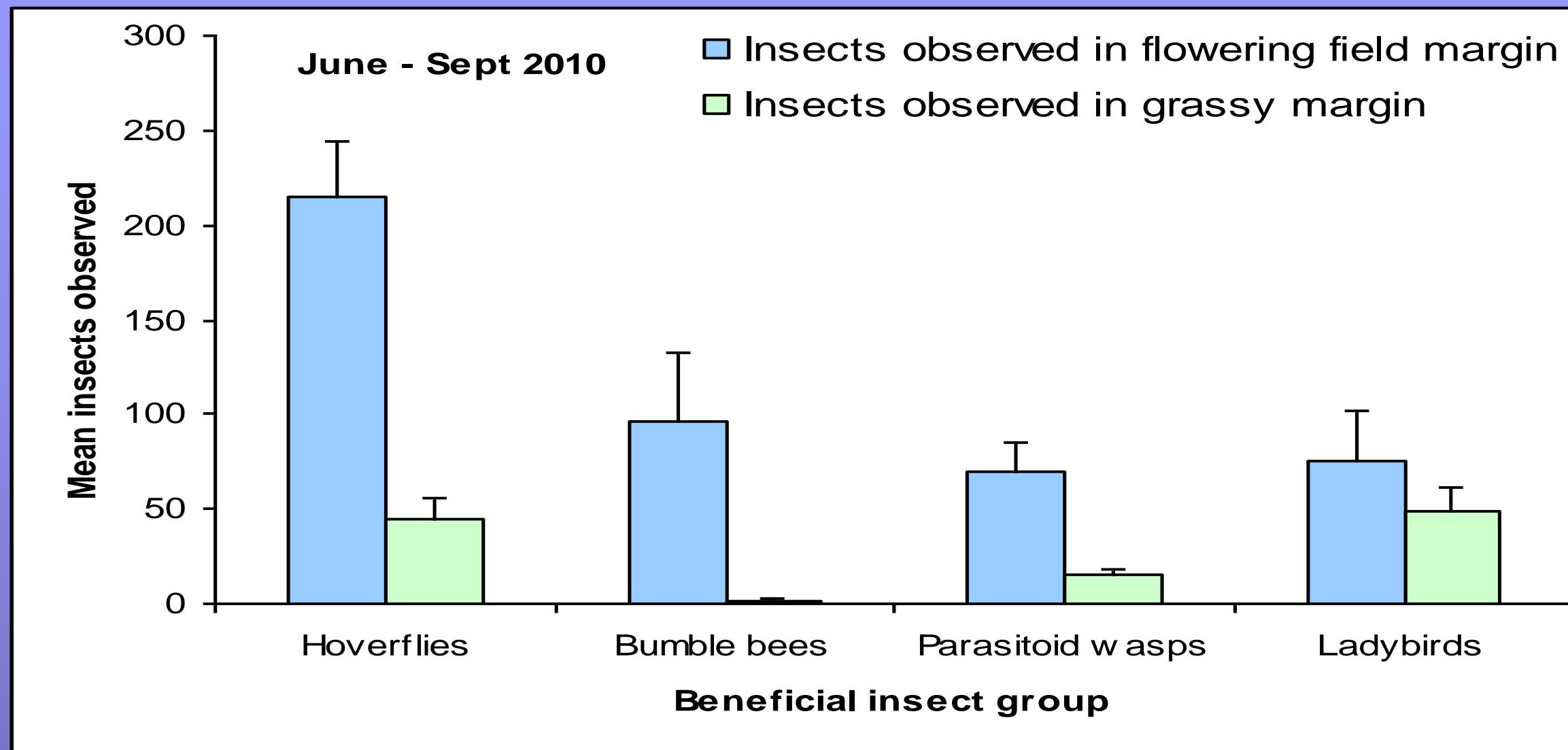
Large scale biodiversity project in the Hoekse Waard working with conventional growers. Addition of annual and perennial field margins to existing landscape features (polders, dikes, creeks, canal borders).



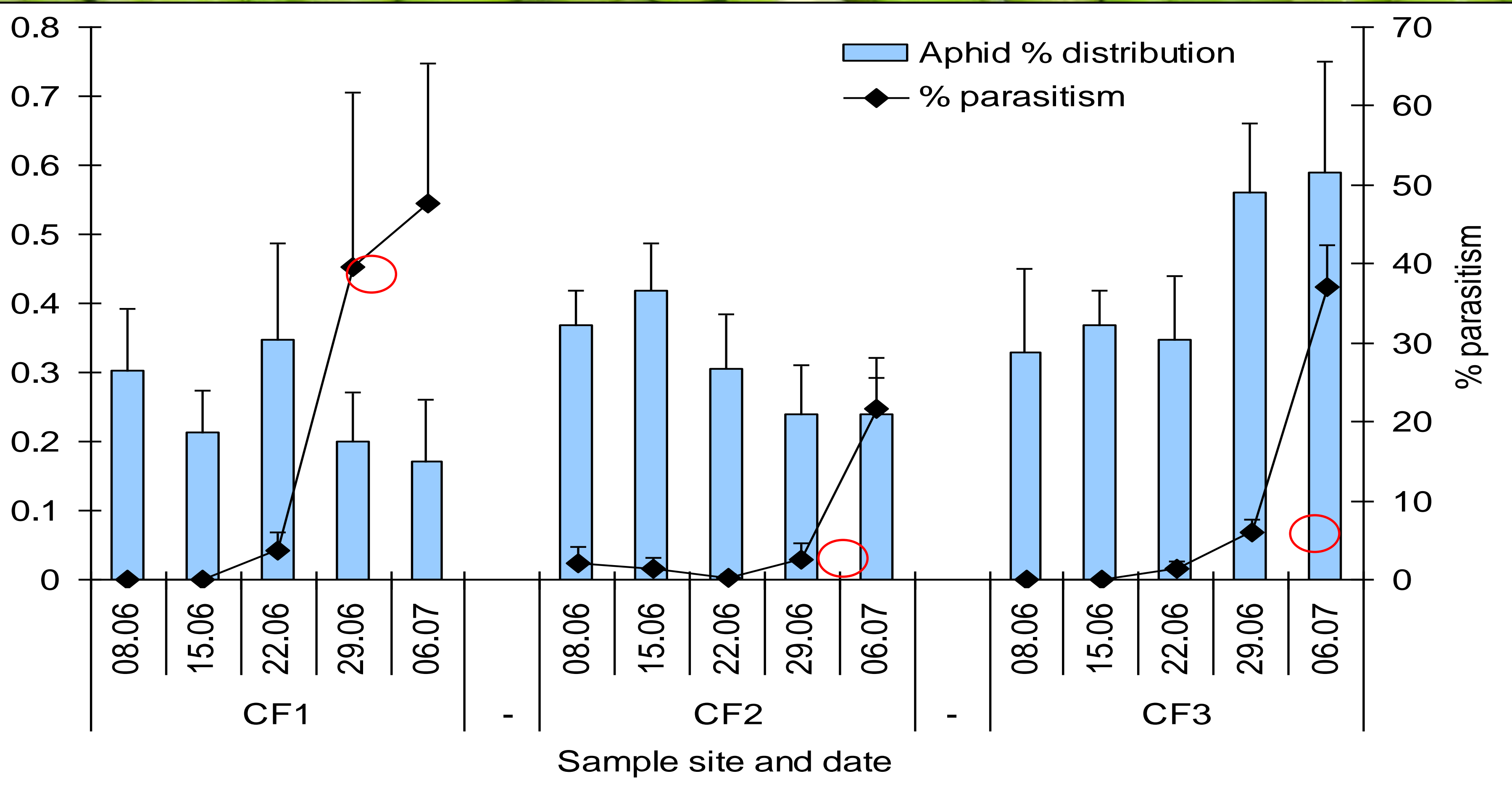
Optimizing **E**cosystem **S**ervices in **T**erms of **A**gronomy and **C**onservation (**ECOSTAC.CO.UK**)



Beneficial insects in field margins



Aphids in peas



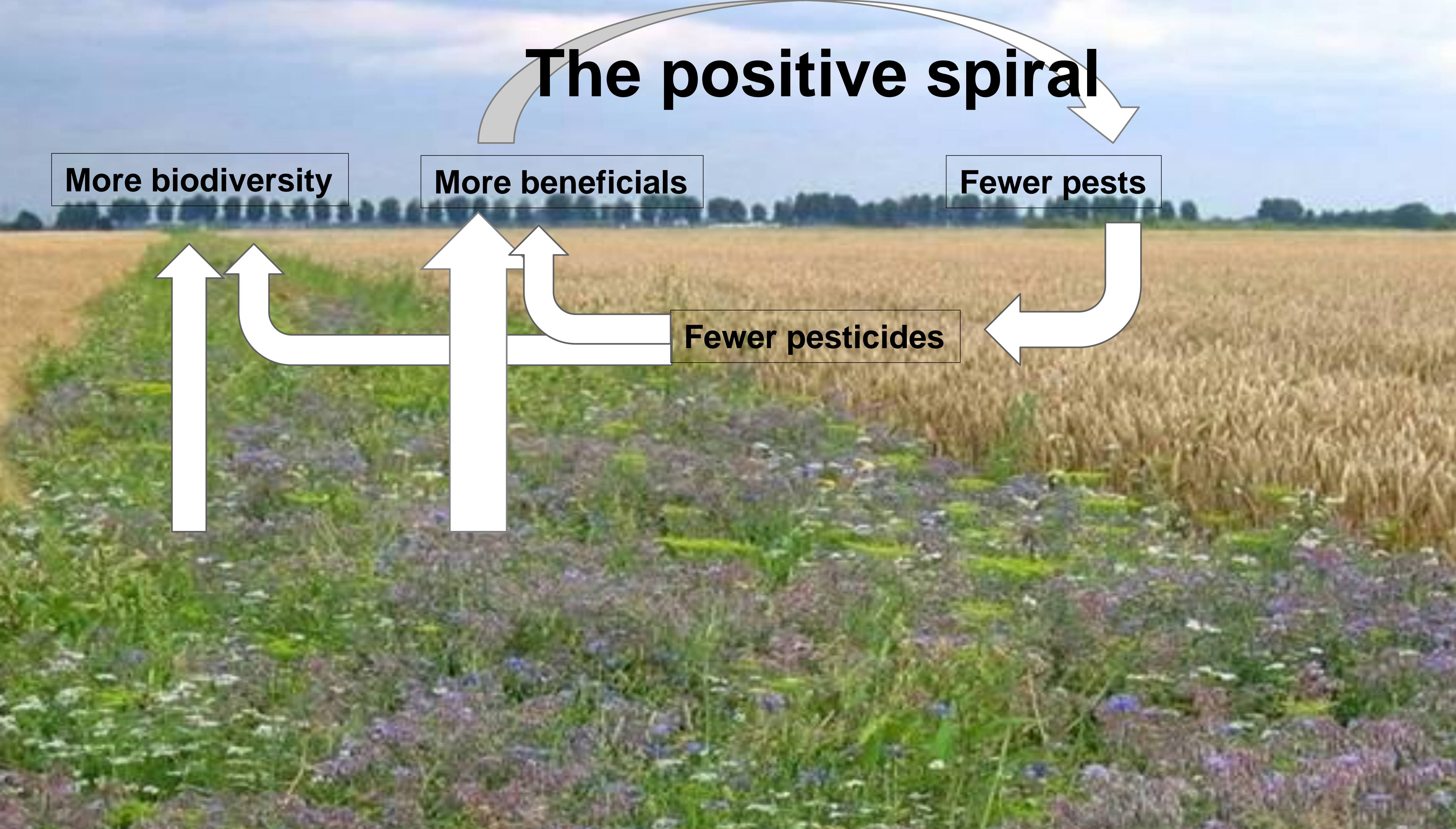
The positive spiral

More biodiversity

More beneficials

Fewer pests

Fewer pesticides



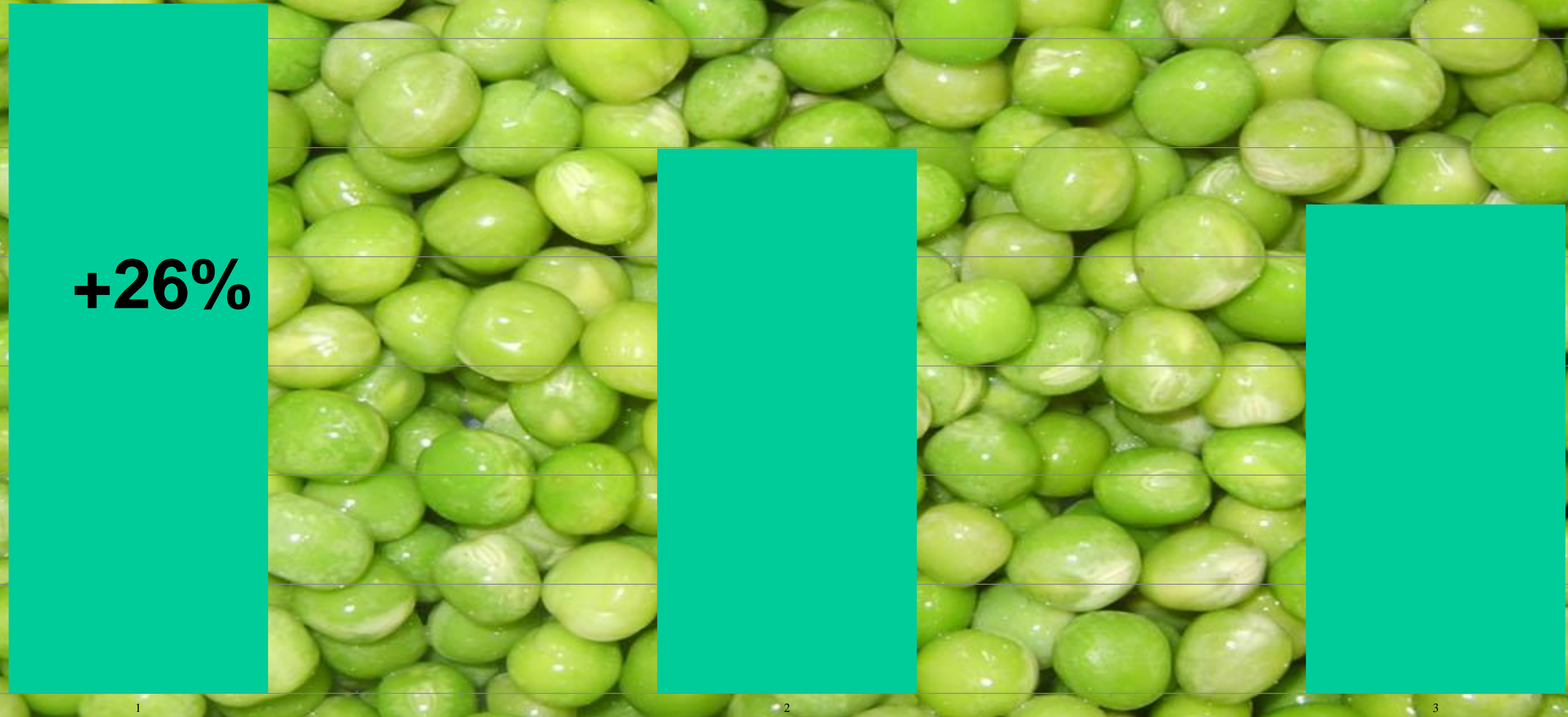


Yield impact?

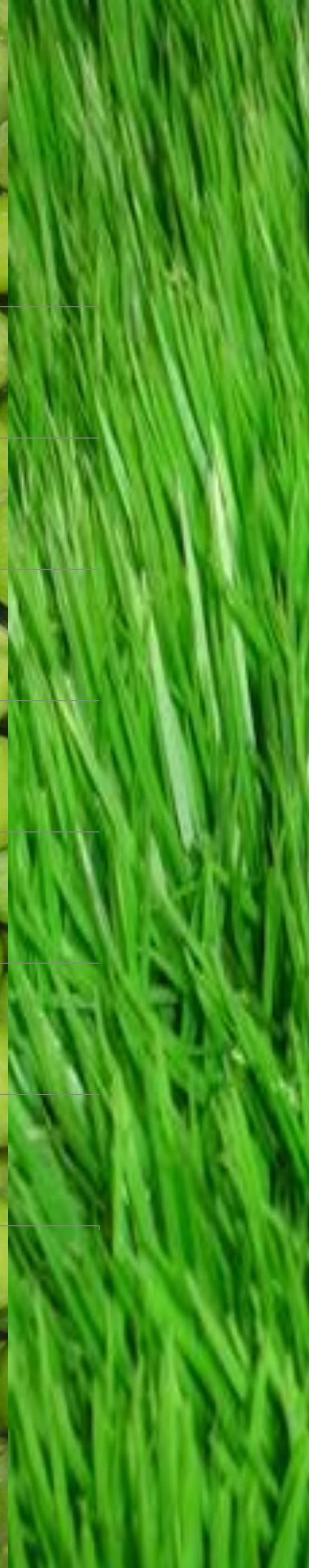
wheat (yield in tonnes/ha)



peas (yield in tonnes/ha)



+26%



carrots (yield in tonnes/ha)

+32%

1

2

3



Biodiversity and Profitability

There is no conflict between

- Biodiversity and Food Production;
- Yield and Environment;
- Yield and Consumer Health

They can go Hand in Hand





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Thanks

