Flanders
State of the Art

Evidence-based sustainable phosphorus use in Flanders (Belgium)

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The phosphorus (P) concentration in the majority of water bodies in Flanders (Belgium) is above the P standard. Agriculture is considered as an important contributor to the eutrophication. The government of Flanders initiated research for more sustainable P use in agriculture (2015-2018).

Experiments

Relating 5 soil P tests to
- leachate P concentrations of 21 soil columns
- relative yield in
  - greenhouse P mining experiment (see poster 236, Nawara et al.)
  - 13 long term P field experiments (UK, Germany, Belgium, Sweden, France)

Relating P deficiency to selected soil P test in 36 fields in Flanders

Fertiliser P field experiments on 18 low P soils in Flanders

Chemical soil mining experiments

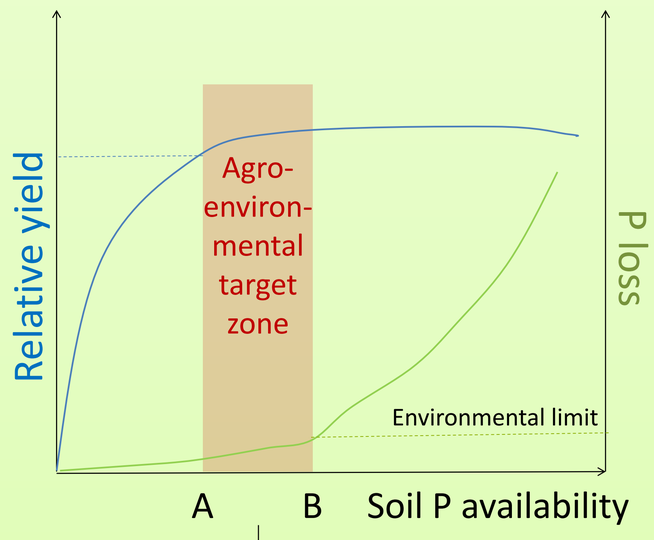
Fertilisation techniques field experiments

Expected outcome

Soil P test reflecting best P availability for crops and for P loss

For this selected soil P availability test:
- Minimum acceptable soil P availability for crop yield (A)
- Maximum acceptable soil P availability for the environment (B)

agro-environmental target zone for soil P availability (A-B)



Fertilisation advice for reaching this target zone

Fertilisation advice for soils with P availability < target zone

Code of best agricultural practice

End results: soil P availability test, target zone for soil P availability and fertilisation advice that take both environment and agriculture into account.

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