

clm



Building sustainable agriculture and an attractive countryside



Climate change: opportunity or difficulty for farmers?

Yvonne Gooijer



CLM Research and Advice

- Independent consultancy
- Broad range of expertise
- Policy advice and evaluation, research, process facilitation, communication
- Practical instruments



The screenshot shows the website for 'Milieumeetlat'. The header includes the 'clm' logo and the title 'Milieumeetlat'. Below the header is a navigation menu with links for 'Intro', 'Products', 'Field crops', 'Indoor crops', 'Downloads', 'Sponsors', 'Links', 'Contact', and 'Nederlands'. The main content area is titled 'Intro' and contains the following text:

What can you do with the environmental indicator for pesticides?

The environmental indicator provides an overview of the environmental impact of all authorised pesticides in The Netherlands and makes it possible to compare different pesticides. This way the least harmful measure can be chosen.

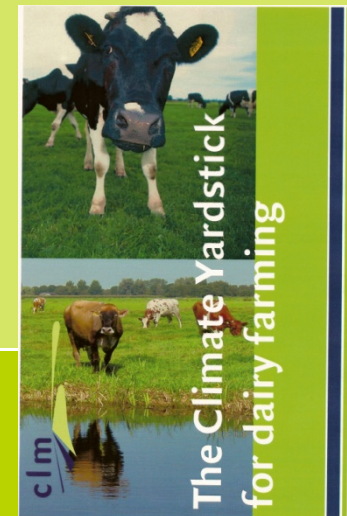
The environmental indicator for field crops shows for each authorised pesticide (1 kg/ha or 1 l/ha pesticide) the following data:

- percentage active substance
- environmental impact points for aquatic organisms (surface water)
- environmental impact points for terrestrial life
- environmental impact points for infiltration to groundwater
- risk for beneficial organisms (biological controllers and pollinators)
- risk for human health by application

The environmental indicator for cultivation under glass shows for each authorised pesticide (1 kg/ha or 1 l/ha pesticide) the following data:

- percentage active matter
- environmental impact points for surface water by space treatments
- environmental impact points for surface water by other application techniques

This website provides the environmental indicator and necessary information. Furthermore an overview of all pesticides and subscriptions is given.

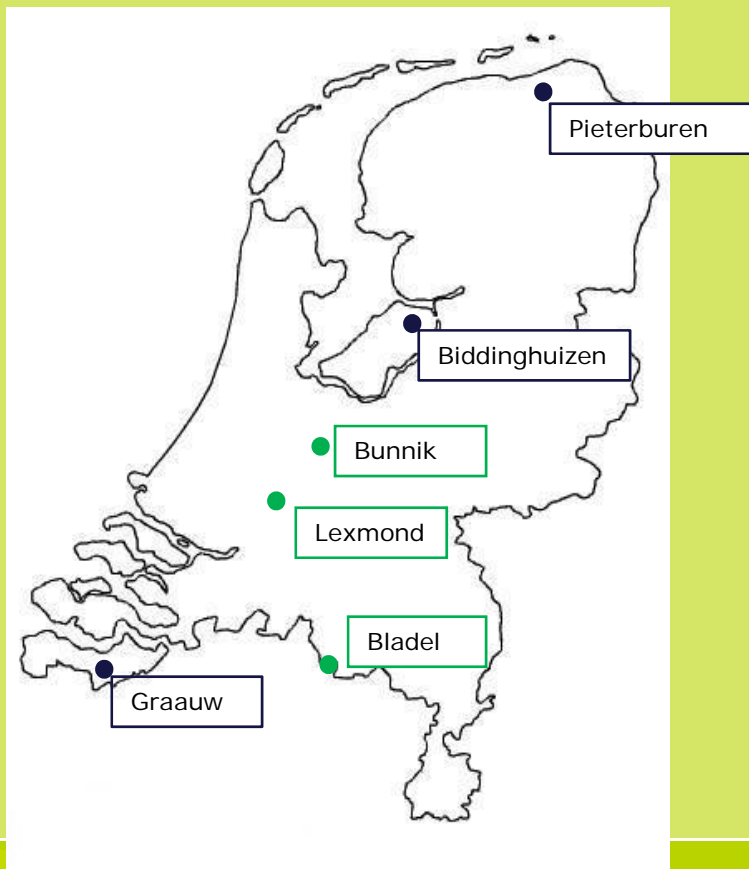


The climate is changing. Your business too?

- Workshops with arable farmers and dairy farmers in different parts of The Netherlands
- Both biological and conventional
- Commissioned by Ministry of Agriculture, Nature and Food Quality



The climate is changing. Your business too?



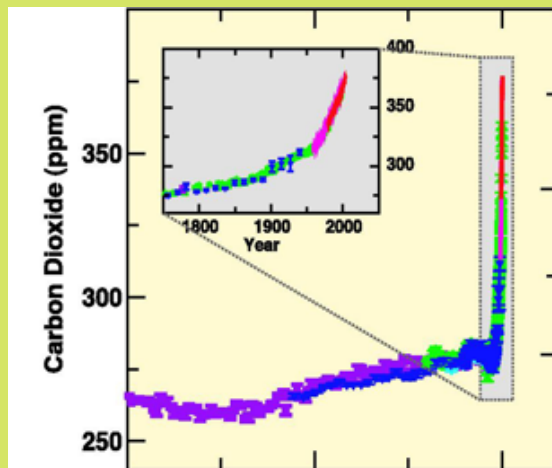
The climate is changing. Your business too?

- climate change?
- effects of climate change
- difficulties/opportunities
- overall conclusion
- what is needed?



Climate change?

- Most farmers think climate is changing
- The cause is questionable



"There are always peaks and sinks, this does not have to be an effect of climate change"

"Climate is always changing"

clm



Effects of climate change

- Work is more hectic
- Prolonged growing season
- More weather extremes
- No recovery of soil structure (less frost)
- More wet summers



"Farmers need frost, it really perks up the soil"

Difficulties

- Deterioration of soil structure
- Water shortage or inundation
- Storage of harvest will become harder
- Re growth of potato after harvest
- Harder to optimize fertilizing
- Decrease of grazing days in summer
- Increase in animal diseases
- Decrease in milk production
- Increase and shift in pests



Increase and shift in pests

- More weeds
- More leafspot and western corn rootworm in maize
- Increase in fungal diseases
- Increase in insects (causing Bluetongue and Q-fever)
- Increase in mice
- Less emelts



Opportunities

- Higher yield
- Better market position for The Netherlands
 - Cultivation of crops that cannot endure frost
 - Cultivation of 'southern' crops
 - Decrease of production in southern Europe



"For global warming we farm at the Gold Coast: fertile soil, enough water available, warmer weather and –in Groningen- above sea level"



Opportunity or difficulty?

Most farmers think their business eventually will benefit.

*"As farmers, we are
used to changes"*





What is needed?

- Knowledge on subjects like climate change and adaptation measures should be better available to farmers.



"There is a lot of knowledge in research, but it does not reach us"