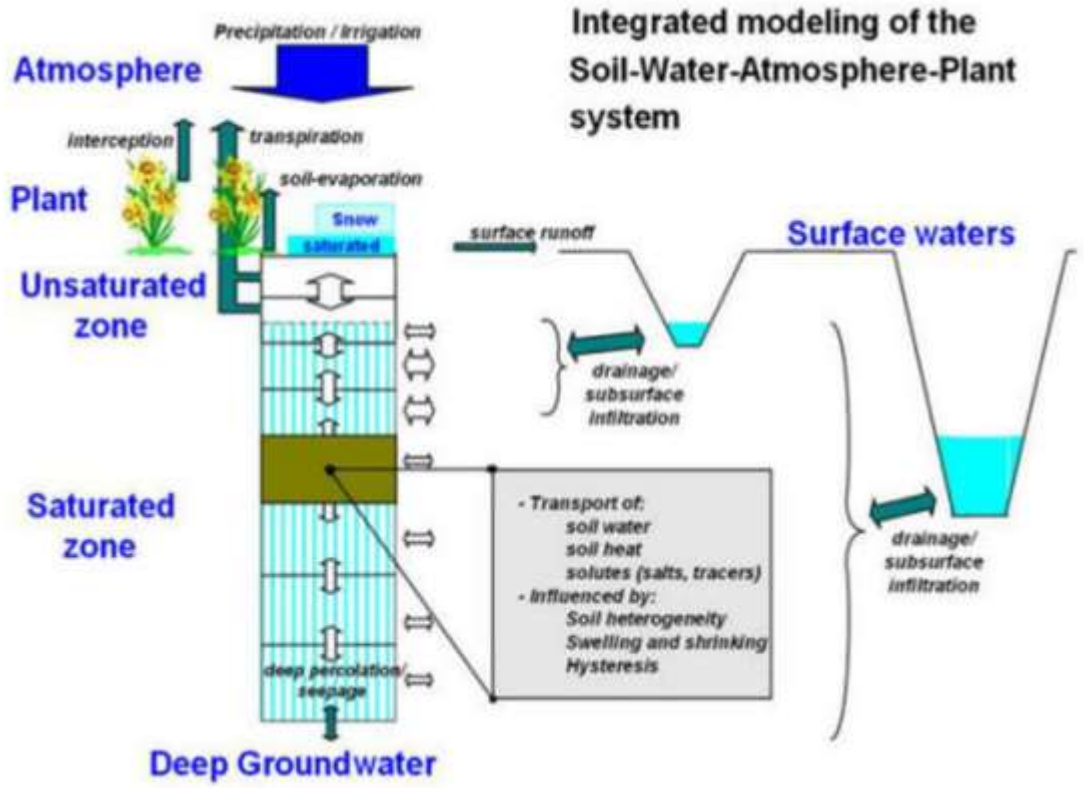
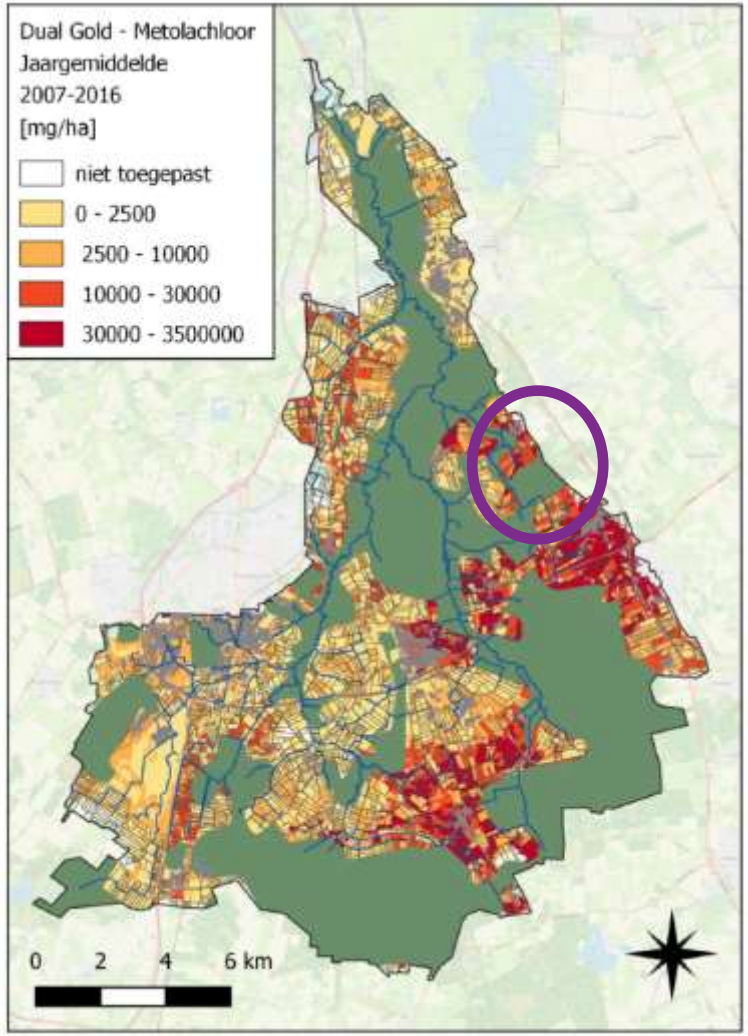
# Catchment based approach on decreasing run-of pesticides to the surface water

# Topsoil first phase

provincie Drenthe




From integrated modelling → risk maps

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# Topsoil extension

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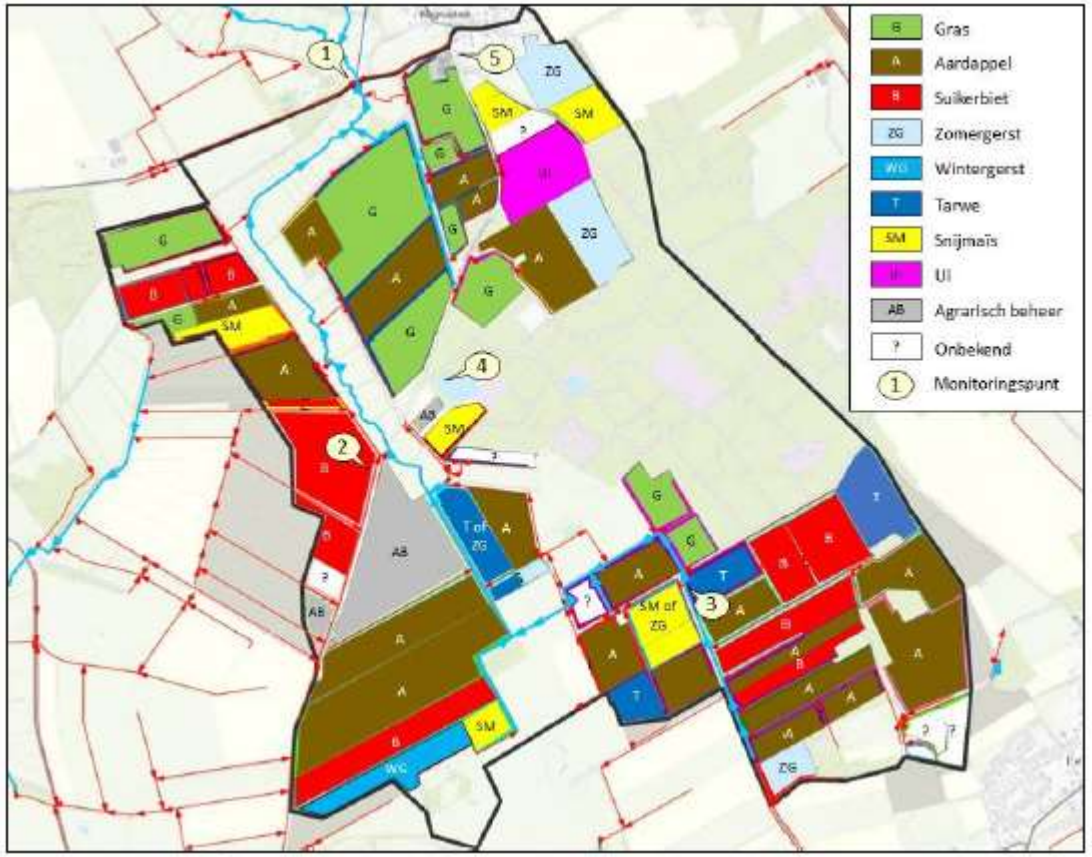
## Pilot area

600 hectare
19 farmers involved
350 ha farmland
Sugarcane, potatoes, cereals and gras

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# Topsoil extension

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Catchment based approach:
the pilot activities for the extension

1. Advisory activities on farm level; detailed research on soil status  individual fields (TOPPS)
2. Testing measures including new machinery (field trails)
3. Field demonstrations
4. Monitoring water quality
5. Subsidy arrangement
6. Stakeholder involvement

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# 1. Advisary activities on farm level

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TOPPS = Train Operators to promote best management Practices & Sustainability
https://www.ecpa.eu/stewardship/stewardship-activity/topps-water-protection

→ Soil survey and risk scans leaching and run off
→ advise for soil tillage, cultivation crops, machinery
→ Own ideas of farmers

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# 2. Testing new machinerie

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Shallow compact soil
-> woelpoot (increasing infiltration

Run-off
→ Wafeltjesrol (less runoff)

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# 3. Field demonstrations

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8 July
Mechanical maintenance buffer strips

20200708_132624.mp4

Bionalan Selac

CombCut

20200708_134754.mp4

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# 3. Field demonstrations

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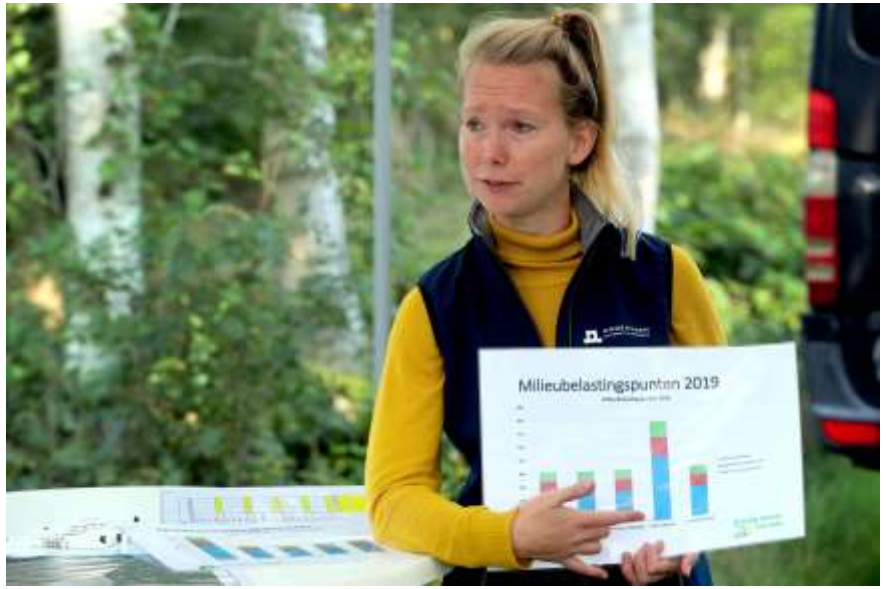
11 September 2020
Using pesticides in maize in combination with catch crops

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# 3. Field demonstrations

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15 September 2020
Place located use of pesticides in grassland

Agrifac sprayer

Hand spray with quad

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# 4. Monitoring

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Focus on pesticides

Goal: – Impact measures
– Origin pesticides

Different sub areas (sugarcane / potatoes / nature /rainwater / urban water)

9 samplings on 5 measuring points (April – October) 2020 and 2021

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# 5. Subsidy arrangement

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Advising

Investments:

Buffer strips (25-30% reduction pesticides)
Buffer strips g infiltration ditch
Machinery (example: ECO plough)

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# 6. Stakeholder involvement

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## Consultation group:

regular consultation on giving direction to the pilot: are we doing the rights things

## Members

agricultural organsiatons
advisory conclutants
agricultural youth organisation
agricultural nature organisation
state forestry

newsletters for members
demonstrations on measures
reports on results : contribution to WFD aims


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# Interesting news

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TTEM is going to be used in this pilot

more detail information about the underground

how can it be used by farmer in daily practice?

Experiment will be unique for the Netherlands and will give boost to apply this on country scale (TNO)

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# Questions

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1. How to upscale measures

2. How to cope with pesticides we measure that aren't used by the farmers in the pilot: dry and wet deposition?

3. When do we consider enough measures have been taken? What will be the message to the farmers?

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# Indicator

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Old

10 % less run off by using bufferzones including the 20% increase because of climate change

New

1. Measured impact of reduction pesticides on the outflow location of the area
2. Estimated reduction loss of pesticides by al used measures in the pilot area
3. Potential impact new machinery on loss of pesticides
4. Awareness farmers for possibility reduce loss of pesticides

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