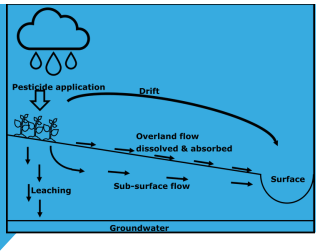
PREVENT PESTICIDE POLLUTION

Best practises to reduce agriculture related pesticide pollution of groundwater and surface water resources

STUDY SETUP

Literature review and practice evaluation by FAIRWAY case studies are combined to identify on farm management practices with a high potential to reduce pesticide transport to off-target locations. Measures for the different transport route were investigated

Total reviewed literature: 177 reports
Included case studies: 9



VEGETATED FILTER STRIPS

Overland runoff and erosion related transport of pesticides occurs on sloping land. This can be effectively reduced by installing a buffer strip (for example high grasses) at the downstream edge of the field.

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REDUCED USE OF PESTICIDES

Leaching cannot easily be prevented by on field measures. If leaching is a risk, reduced input of pesticide is most effective.

DRIFT REDUCTION

Aerial transport of pesticides during application, can pollute bordering surface waters and environment. Improved spraying devices, combined with low wind speed application management, can reduce this pollution source substantially.

IPM - SYSTEM REDESIGN

A holistic approach, redesigning the farm system to reduce use of pesticides and prevent transport, is promising to reduce pollution, while also increasing productivity and improving ecological value of the farm

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CONCLUSIONS

To obtain a sustainable farming system, input reduction, farm system redesign, point source mitigation and policy measures should be combined with on-site measures to reduce pollution.

Velthof et. al. (2020). Identification of most promising measures and practises. FAIRWAY report series.

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