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Pollution Swapping in Agricultural Systems: deciding between mitigation measures with conflicting outcomes

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Pollution swapping occurs when a mitigation option introduced to reduce one pollutant results in an increase in a different pollutant. Although the concept of pollution swapping is widely understood it has received little attention in research and policy design. This study investigated diffuse pollution mitigation options applied in combinable crop systems. They are: cover crops, residue management, no-tillage, riparian buffer zones, contour grass strips and constructed wetlands. A wide range of water and atmospheric pollutants were considered, including nitrogen, phosphorus, carbon and sulphur. It is clear from this investigation that there is no single mitigation option that will reduce all pollutants and in this poster we consider how choices may be made between mitigation measures which may have a positive effect on one pollutant but a negative effect on another.