



MINAGRIS

INVESTIGATING THE EFFECTS OF MICRO- AND NANO-PLASTICS ON SOIL HEALTH

Agricultural plastic use across Europe: Initial findings from our case study farmers

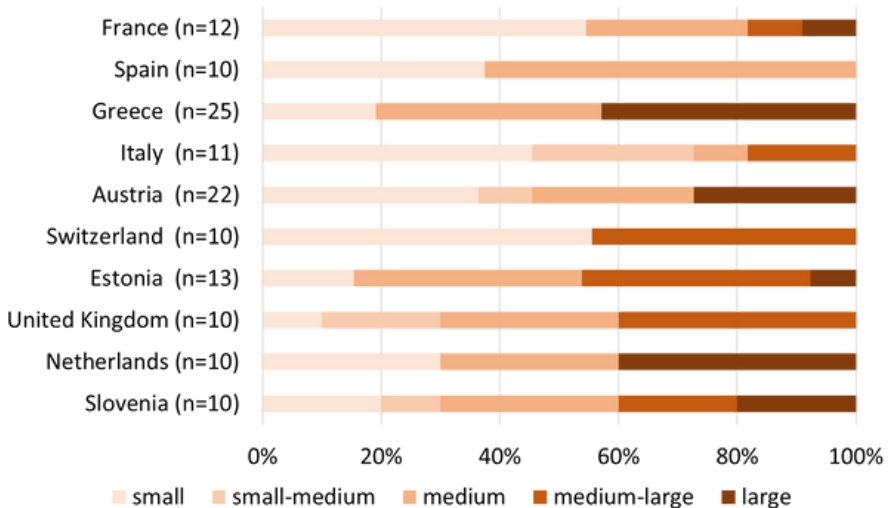


Introduction

We interviewed all 133 of our case study farmers from Europe. The main farm types surveyed include cereals, horticulture, orchards, and olive groves. Participants were asked how much plastic is being used in their fields and the extent to which they see this as a problem. Farmers were also asked about their information needs. We found that many farmers do not have enough information on the impacts of plastics on soil health.



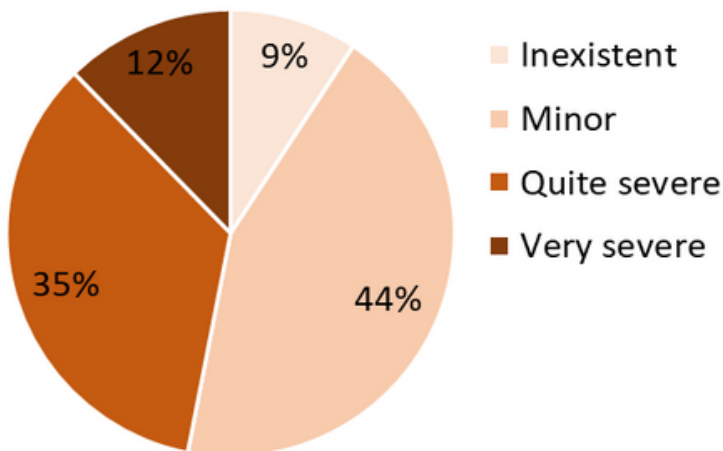
Estimated amounts of plastic on-farm



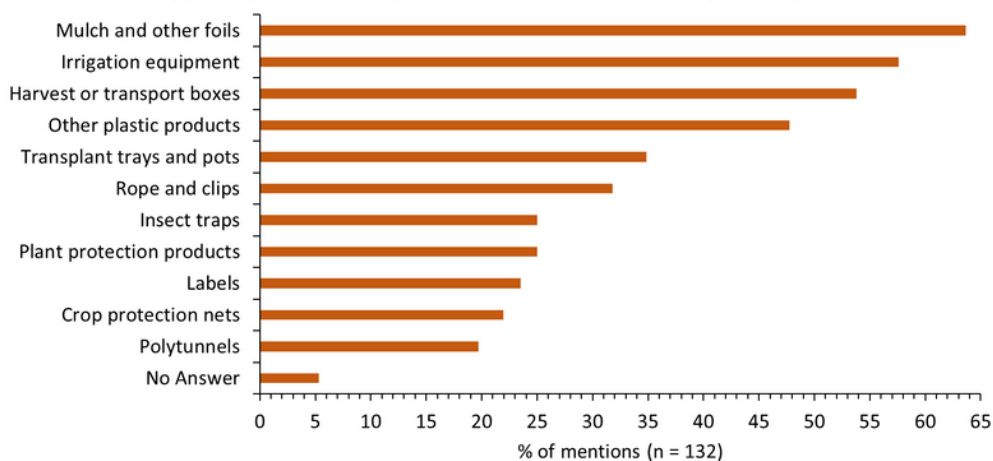
86% of interviewed farmers are actively trying to minimise plastic use and remove/recover/recycle introduced plastic materials after use

Findings

How severe do you think plastic pollution on your farm is? (n = 130)

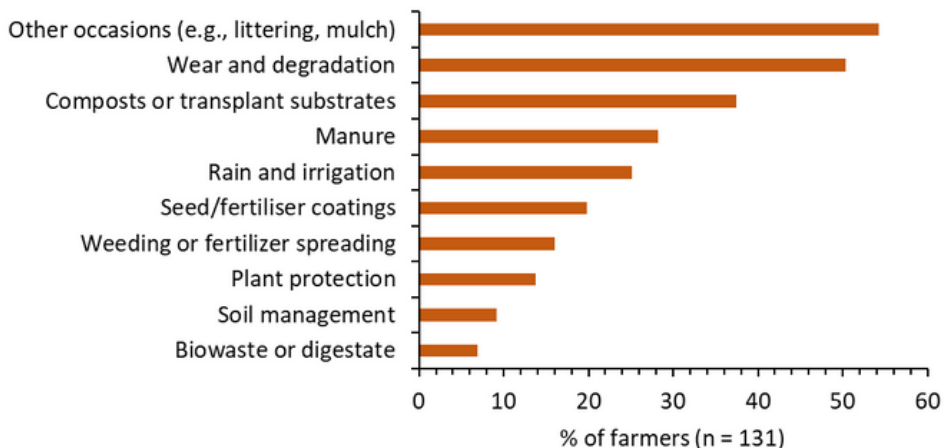


What types of plastics have you used on the farm over the past 10 years?

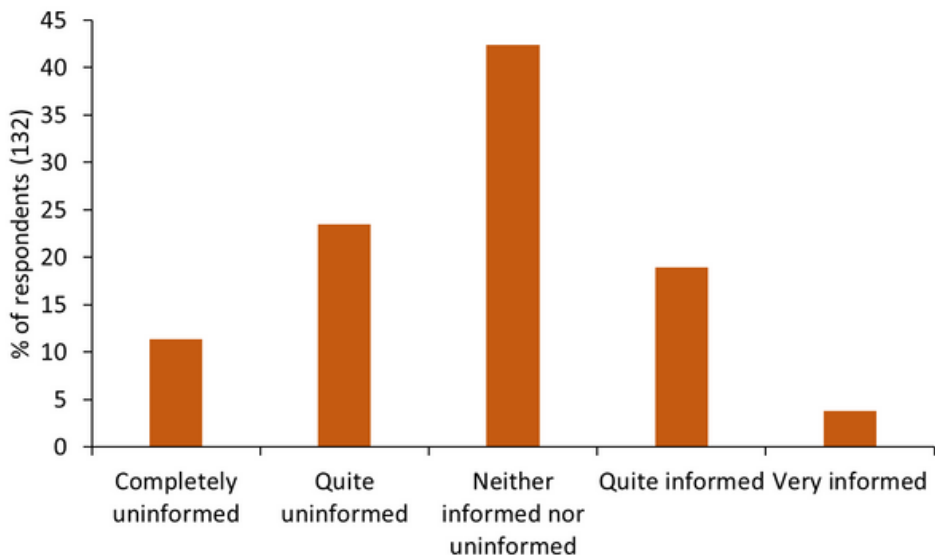


At least 67.5 % of interviewed farmers have no knowledge of regional or national initiatives working on plastic reduction or plastic removal from fields and landscapes.

On which occasions do you think plastic could have entered your production system unintentionally over the past 10 years?



How well informed do you feel about plastic use and soil impacts?



Key information needs include technical information around the impacts of plastic products on soil health, competitive/good alternatives to plastic products, how to use plastics to avoid negative impacts, ways of recycling plastics, clarity around regulations, and reputable plastic product suppliers.

Conclusions

It appears that many farmers across Europe rely on plastic-based products for many of their activities. The main plastics used include mulches, irrigation equipment, and plastic transport boxes. In addition, there are clear information needs surrounding agricultural plastics, with 35% of surveyed farmers feeling quite or completely uninformed about their potential impacts on soil health. MINAGRIS will attempt to address some of these knowledge gaps.

SoilPlastic App

We have recently launched a citizen science app, SoilPlastic, which allows farmers and the public to help us monitor the presence of plastic in agricultural soils. You can download this on [Apple](#) and [Android](#) smartphones.



Project partners



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Project coordinator: Prof. Violette Geissen
Scientific coordinator: Prof. Karpouzas Dimitrios

