



Stakeholder perceptions of the most frequently used agroecological method of weed control in arable crops in Continental Region (Poland)

PROBLEM

What are the most common and effective agroecological methods for weed control in arable crops in the Continental Region?

STAKEHOLDER PERCEPTIONS

Crop rotation is the most frequently used agroecological method, with nearly 90% of farmers adopting it. The use of certified seed material follows closely at 85%, while around 50% of farmers use special sowing dates, and about 40% employ competitive varieties. Less common methods include weed maps, tillage, cover crops, and flame weeding. Traditional practices like mixed cropping and hand weeding have largely been abandoned, and methods such as interrow cultivation and tillage are known but seldom practiced. Notably, weed maps are the least familiar method, unknown to 35% of farmers. Stakeholders agree on the importance of crop rotation, interrow cultivation, and hand weeding, with over 90% awareness of these techniques. Additionally, certified seeds, cover crops, and mulching are recognized by 87% of stakeholders, while mowing and grazing are acknowledged by 82%.



*Figure 1: Potatoes in the organic crop rotation, continental bioregion.
Photo by A. Synowiec*



RECOMMENDATION

Agroecological weed control should focus on promoting successful practices like crop rotation and certified seed material while increasing adoption of underutilized methods, such as weed maps and cover crops. Emphasis should be placed on integrating mechanical control methods, like shallow plowing and inter-row cultivation, with innovative technologies, including laser weeding and robots. Preventive strategies, such as using qualified seed material and understanding weed biology, should be prioritized to enhance crop competitiveness. Education and research are essential to improving the adoption of these methods and addressing gaps in farmer knowledge

KEYWORDS

continental region, arable crops, crop rotations, certified seed material

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