



Stakeholder perceptions of the most frequently used agroecological method of weed control associated to arable crops in Atlantic Region (Spain)

PROBLEM

What are the most popular agroecological methods for weed control in arable crops in the Atlantic Region?

STAKEHOLDER PERCEPTIONS

In wheat and potato cultivation, crop rotation is the most common method for weed management (79%) used by farmers and know but all community, followed by tillage (70%), inter-row cultivation (62%) and quality seed-material. Although less frequently used high plant densities, mowing and grazing (15%) are also implemented. The least used practices include cover crops/mulches (11%), special planting dates (9%), narrow rows (6%), mixed cropping (2%), and weed maps (2%). A significant number of farmers (81%) were unaware of soil cover and flame weeding, highlighting a gap in knowledge. Participants reinforced the importance of crop rotation, while also suggesting bioherbicides, mechanical tillage, high seed density, and competitive cultivars for wheat. For potato, recommended strategies include low tillage, plowing, ridging, biofertilizers, and false seeding.



Figure 1: Wheat experimental plots in A Limia (Galiza, Spain) where different agroecological strategies are being tested vs. synthetic herbicides



Figure 2: Wheat experimental plots in A Limia (Galiza, Spain) where different agroecological strategies are being tested vs. synthetic herbicides



RECOMMENDATION

An integrated approach combining crop rotation, mechanical tillage, and qualitative seed material is recommended for effective weed management in arable crops. Additionally, introducing bioherbicides, biofertilizers, and optimizing planting dates can further enhance control. Training programs should focus on less-known practices like soil cover, flame weeding, and mixed cropping to increase their adoption and effectiveness in sustainable farming systems.



Figure 3: Wheat experimental plots in A Limia (Galiza, Spain) where different agroecological strategies are being tested vs. synthetic herbicides



Figure 4: Wheat experimental plots in A Limia (Galiza, Spain) where different agroecological strategies are being tested vs. synthetic herbicides

KEYWORDS

crop rotation, mechanical management, AS integrated approach, bioherbicide, biofertilizer

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