

## 2. Cover, catch and companion crops

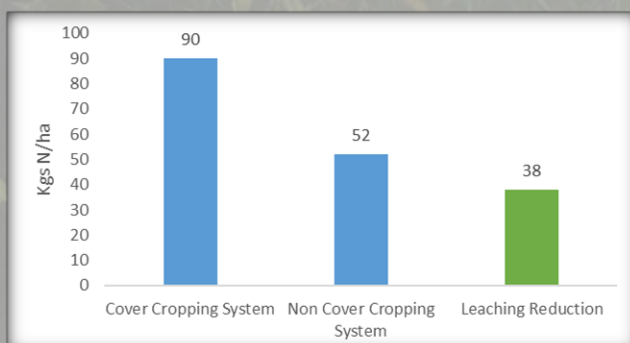
### Benefits, challenges and economics for UK growers

There is growing interest in early autumn catch crops, over-wintered cover crops and companion crop sowing in the United Kingdom. Farmers need to be aware that cover cropping is just one area of an integrated farm management plan and is not a single solution to agronomic problems.

- Potential **benefits** of cover cropping include soil structuring, nitrogen recycling, soil erosion and reducing nutrient leaching to help improve water quality.
- There are aspects of cover cropping that can help **weed, disease and pest management**. Some of these rely on some natural processes such as bio fumigation, allelopathy and increasing numbers of 'crop pest' predators.
- **Farmland birds** can flourish as more diverse food chains are established. Improving conditions and habitat for earthworms and pollinators through cover cropping can also be economically beneficial to farmers.
- Cover crops can help **deliver improvements to ecosystem services through cleaner water, healthier soil and more carbon sequestration**. Current agricultural policy and legislation has allowed growers to use cover crops.
- The use of cover crops for **livestock grazing** should not be overlooked as livestock can help with weed, fertility and pest issues.



- Growing cover crops is not without **challenges** and following crop yields can be variable. Soil structure and seedbed preparation can be compromised on certain soil types in wet spring weather. **Green bridges, slugs and crop diseases can need careful management**, but management techniques can be employed to reduce their impact.
- The **financial implications** are covered in the report, but more economic studies are required to look at the longer-term implications. Further research over a whole crop rotation may reveal benefits of soil health and soil resilience that are not immediately evident in the early stages of cover cropping.



Nitrogen retention in cover crop v. non-cover cropping system.

