The benefits of catch and cover crops

- increased crop yield by improving soil health
- reinforced water management
- decreased nutrient leaching and more effective nutrient cycles
- decreased fertilizer costs
- feed microbes
- minimize the need for use of pesticides
- weed control
- erosion prevention
- increased biodiversity
- increased vegetative cover and organic matter content in arable land
- increased carbon sequestration in arable land
- catch and cover crops are a resource that can be used for example as pasture, livestock feed, seeds or as a raw material for biogas production

Choosing catch and cover crops

Think carefully whether you want catch and cover crops that:

- fix/lock in nitrogen
- increase organic matter content in arable land
- improve soil structure
- protect the soil from erosion
- control weeds
- affect the accessibility of the soil nutrients
- extract nutrients from the soil
- improve the soils ability to retain water
- provide a habitat for certain organisms
- increase the bearing capacity of the soil
- or dry the field in the spring faster

Think about the answer, and test your ideas by using the catch and cover crop guides on the reverse side and on the web.

Catch and cover crops can be sown, for example:

- simultaneously with the main crop, in the middle of the growing season and after harvest or tillage
- through the small seed box in the seeder
- through the seed drills ploughshares
- when using seeding methods where seed are just cast on the soil, remember the meaning of mulching. Even the slightest mulching helps the seed germinate
- when weed harrowing

The multibeneficial catch and cover crops

Soil health is the basis of productive agriculture. Good water management and soil structure is essential for farming to be productive and environmentally friendly. Catch and cover crops are a great help for diversifying the crop rotation and increasing vegetative cover.

Catch and cover crops are an important part of a crop rotation that aims for productivity, sustainability and carbon sequestration. If the farm’s crop rotation does not include grasses, it is important to use catch and cover crops for continued photosynthesis on the field after the main crop is harvested. Catch and cover crops can be undersown simultaneously with the main crop or right after harvesting.
How to compose a mixture of catch and cover crops

70 %
2–3 reliable species
- e.g. rye, oat, Italian ryegrass, white clover

30 %
4–6 species
- e.g. alfalfa, caraway, phacelia, other clovers and vicia

In addition, sunflower, radish, pea, mustard, buckwheat and melilotus can be added in the mix to create diversity and ecosystem services.

In the Carbon Action project, farmers have tried mixtures such as:
- REVERSED CLOVER, CRIMSON CLOVER, WHITE CLOVER, ITALIAN RYEGRASS, RYE
- BUCKWHEAT, CRIMSON CLOVER, OIL LINSEED, OIL HEMP, OIL RADISH, TILLAGE RADISH, PHACELIA, HAIR VETCH, ITALIAN RYEGRASS, OAT, TRITICALE, RYE, RYEGRASS, TIMOTHY
- TIMOTHY, TALL FESCUE, RED CLOVER, OAT, RYE, HONEY CLOVER, COCK’S-FOOT, WHITE CLOVER, COMMON CHICORY
- ITALIAN RYEGRASS, TIMOTHY, RED CLOVER
- ITALIAN RYEGRASS, WHITE CLOVER
- HONEY CLOVER, ITALIAN RYEGRASS, TALL FESCUE
- ALFALFA, CRIMSON CLOVER, REVERSED CLOVER, WHITE CLOVER, ITALIAN RYEGRASS, WESTERWOLD RYEGRASS, BARLEY, OAT, FABA BEAN (after threshing and plowing)
- ITALIAN RYEGRASS, TIMOTHY, MUSTARD (after threshing and plowing)
- TILLAGE RADISH, PHACELI, CRIMSON CLOVER (after threshing and plowing)