

Crop mixture: sunflower and barley

Why combine sunflower with barley

Sunflower, a North American crop, has intrigued researchers around the world for years. INRA even call it "crop for the future". What are its advantages? A great diversity of commercial outlets but also a very good inclusion in the low-input systems promoted by Terrena and La Nouvelle Agriculture®. Indeed, sunflower needs few phytosanitary interventions, low nitrogen and exploits at its maximum the soil water through a deep root system.

Nevertheless, sunflower surfaces have tended to decline in recent years: birds attacks on sunflower seedlings are becoming more and more damaging. Birds consume the seeds by following sowing lines. The damage can be significant, from the loss of few plants to the total destruction of the field. To deal with this issue, Terrena's members and their technicians have very recently imagined a sunflower-barley mixture (picture 1) and are testing it.



Picture 1: Sunflowers-barley (Terres Innovia)

Interview with Pierre Bimont (picture 2), expert in pest management at Terrena Agronomic Department.

We all have seen scarecrows in fields, do not solutions already exist to frighten birds?

"Of course, there are solutions to fight against birds attacks at sowing. Fertilizers with repellent effects have been evaluated as well as more conventional scaring techniques such as cannons, scarecrows, balloons or kites. Nevertheless, none of these techniques are effective enough to limit the damage."

How could the mixture sunflower-barley be more effective than scarecrows?

"The idea is to sow the sunflower under a spring barley cover in order to protect the sunflower seeds. Barley is sown in March, and when it is enough developed (few centimeters), the sunflower is sown directly in the barley field. This is "direct seeding under vegetal cover" (picture 3). The barley is then destroyed to allow sunflower to grow normally. The aim is to protect the sunflower crop during its most sensitive phase, from germination to emergence, by birds' visual confusion."

From an economic point of view, is this technique profitable for farmers?

"As the mixture is still being tested, we cannot provide quantified results yet. However, early results are encouraging: lower attack rates in sunflower seedlings under cover. "



Picture 2: Pierre BIMONT

Like clocks, sunflowers not only follow the sun but also the trend of sustainable development and agro-ecology.



Picture 3: Sunflower sown in a barley field (Terres Innovia)