



# IMPACCT CASE STUDY No. 19

Integrated Management Options for Agricultural Climate Change mitigation

## Lovasberény Agricultural Cooperation, Lovasberény, Hungary

This case study is based on a large 1800 ha mixed farm located in Lovasberény which is a village in the administrative county of Fejér in Central Hungary. The village lies between Lake Velencei, the Vértes Hills and Velence mountains. The topography around the farm is mainly flat.

The farm's main activity is cereal production, growing 540 ha of maize, 421 ha of winter wheat, 410 ha of sunflowers, 170 ha of barley, 97 ha of soy beans, 60 ha of rape seed and 10 ha of triticale.



Lovasberény, Hungary

The livestock enterprise is based upon 260 limousin cattle, 360 pigs (a cross breed unique to the farm) and 135 ha of grassland.

The farm also has a scrub and bushy areas around the grasslands (10 ha) and some un-farmed and unmanaged grassy banks near to a railway (1 ha).



Sunflowers

Currently, there is not a great awareness of the farm's contribution towards climate change nor the opportunities for mitigation. However the farm undertakes the following activities:

- The farm has implemented several changes to save fuel and energy. This has included purchasing a new tractor and soil tillage machinery to replace older machines. This has improved the quality of the field operations by, for example, improving the quality of the seed bed, uses less fuel and so produces less greenhouse gases. The new machinery is also much more reliable and so maintenance costs are lower. This has also lowered operation costs by 15-25%.
- Soil management and plant nutrition activities are reviewed regularly to optimise machinery and fertiliser use and save money.

- Waste management activities are undertaken and steps have been taken on farm to identify and separate waste streams to allow recycling and minimise the quantities produced where possible.
- Water conservation and management is undertaken on the farm mainly with respect to the livestock activities where care is taken to avoid losses from drinkers.
- Basic management is undertaken of the scrub, bush and un-farmed areas for the benefit of wildlife. These areas are kept free of fertilisers and pesticides and are not cultivated.
- Livestock houses are insulated to reduce the need for heating saving fuel and greenhouse gas emissions.



**Limousin cattle**

Original case study content collated by SZIU Crop Production Institute, Szent István University

