

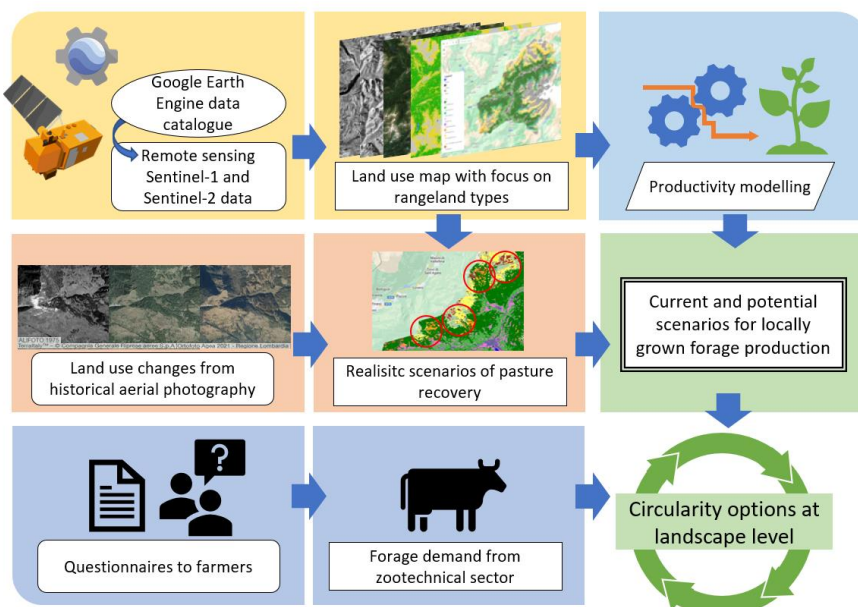
Are bakery by-products a sustainable feed ingredient and will farmers adopt more circular practices?

These are some of the questions CircAgric have been working on the past year. The project has defined a list of circular practices which address the 3Rs of circularity. The list is used in discussion with farmers and stakeholders in workshops across the institutes participating in the project.

In Italy, cows were fed bakery by-products (former food) in their diets as energy source. The aim was to compare the global warming potential (GWP) related to milk production and to the lactating cows ration of a farm that switched from a control diet to a circular one including the bakery by-product. The researchers concluded that the circular diet seemed to be more sustainable, in terms of GWP, by considering the impact both per kilogram fat and protein corrected milk and per individual daily diet. Questions were raised about the access to bakery by-products in large scale, but the results are promising for looking at other by-products included in diets to dairy cows.

Eugenio Carlon and Francesco Fava, of University of Milan, are using remote sensing in evaluating potential and productivity of local foraging resources. They are following traditional alpine pastoralism and exploring circularity in this system. The case study taking place in Lombardy, Italy, covers around 715 km² and uses remote sensing to produce a land-cover map focused on identifying vegetation and productivity-related pasture types.

Then, productivity modelling and farm surveys are combined with the land-cover information to obtain estimates of locally grown forage productivity, to be compared to the effective demand of the local farms. One major objective of this study is to target directly land-use circularity-orientated decision making, also evaluating pastoral surfaces that have been lost but may still be recovered or improved.



Schematic diagram of E. Carlon and F. Fava Val Camonica case study, evaluating the potential and productivity of local foraging resources, against the effective demand of the zootechnical sector.

CircAgric held our mid-term project meeting in Galway, Ireland. During the meeting, we visited a dairy farm that is part of the project to James Humphreys, Teagasc. James is following 20+ farms to introduce and include circular practices. The farm we visited has very few inputs and focus more on milk solids than milk yield in litres per cow. The around 300 cows are grazing all year round on pastures with high inclusion of clover.



Dairy cows grazing clover leys, Photo: V. Lind, NIBIO

Clover ley, Photo: V. Lind, NIBIO

On behalf of CircAgric consortium,

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