Maize Growers Association

Maize Carbon Challenge 2021 - 2025

Background

The Government has a twenty-five-year plan which calls for slowly increasing levels of natural capital including Soil Organic Matter (SOM) and carbon storage. Sequestering carbon in the soil will help reduce carbon in the atmosphere and increased levels of SOM will lead to greater resilience in terms of water and nutrient retention, biodiversity, soil retention and crop yields.

The Maize Growers Association (MGA) continues to believe that maize, when grown in an environmentally sustainable manner, should be considered as part of the solution to ongoing carbon challenges. We remain convinced that the active summer growth of maize biomass will sustain and even increase levels of soil organic matter and carbon storage with this organic matter being retained within the soil if careful pre and post cropping management practices, including cover crops and minimum tillage are undertaken.

To develop the idea of Maize being part of the solution we, along with project sponsors Future Biogas, have devised a four-year challenge to demonstrate the benefits of a maize rotation when considering carbon sequestration. The purpose of this briefing is to introduce the MGA Carbon Challenge and to seek expressions of interest from those keen to become involved.

The MGA Carbon Challenge

The challenge will follow the progress of six regional teams, each led by a 'Carbon Champion', as they plan and action agronomy plans focused on maximising carbon sequestration within a specific field, over a four-year period.

The challenge will commence this autumn (2021) with an independent base line assessment of the Soil Carbon via detailed soil testing. Interim assessments, including biomass assessment above and below ground, will be undertaken during years two, three and four with Soil Carbon being assessed for a final time in Autumn 2025.

Team Priorities

The MGA challenge teams will need to focus efforts on maximising the interception of solar energy and grow a cover crop before each maize crop and/or under-sow the maize with grass. Cultivation of soil, known to impact on carbon release will need to be minimised. The introduction of organic matter, including manures, digestate, composts, where available, offer a route to higher levels of microbial biomass and improved soil organic carbon levels. In addition to the broad challenge themes teams will have to tailor their plans for local soil type, climate, and economic outputs.

Sponsorship and Communication

We are delighted to acknowledge Future Biogas's support for the project in terms of time, expertise and via financial support for the soil assessments. Future Biogas is one of the largest producers of bio methane in UK producing 400GWh enough energy to heat 40,000 homes. They grow a big acreage of maize and fully support this MGA carbon challenge.

Communications

Regular MGA Carbon challenges updates will be published for MGA Members and the wider community. Annual report will be presented at the MGA conference. A Final Report will be produced and openly published at the end of the challenge.

What Next

If you are interested in getting involved in the MGA Maize Carbon Challenge, please could we ask that you contact Sarah at the MGA office. We are planning a virtual meeting during August where the protocol for the challenge will be discussed and teams set up. Grower, commercial and educational members are welcome to get involved. If interested please drop Sarah an email at info@maizegrowersassociation.co.uk or call on 01363 775040.