STØTTET AF
Promilleafgiftsfonden for landbrug

Opticrop Report: Grass 2021 at RadiMax platform

1. Experimental setup

Activity	Date	Special comments
Planting	15 October 2020	
Cuts	1. 17th June 2. 25th July 3. 26th September	Second cut included isotope sample
Drought stress	Form end of June	
Isotope injection	11th of July	15N and 2H20 have been injected at 115-130cm soil depth to all varieties at the same time
Imaging	1. 26-29th April 2. 31st May-2nd June 3. 28th June-1st July 4. 1-3rd September 5. 18-27th October	

1. Sowing design

- Grass rows were sown right above each RadiMax minirhizotron tubes, giving the distance between rows to be 25cm. In total there were 150 grass rows in each RadiMax bed
- Detailed design with variety position is to be found in Design.xlxs sheet

2. Isotope injection and 13C discrimination in grass

- Two tracer isotopes have been injected to all grass varieties at the same depth and at the same time, using sub-irrigation system installed at RadiMax facility.
- Injection of tracer was done on the 11th of July, between the first and the second cut.
    - Injection was done after the first cut and after the bed was irrigated and fertilized
- Grass samples right above the labeled area have been collected (2 samples in each row) at the harvest.
    - Grass sample has been dried, milled and sent for further analysis.
    - Samples belonging to the same row were individually analyzed and the average value for a row is presented in the excel sheet.

3. Root data

- We have collected 5 root data sets during growing season.
- In the excel sheet total root length per tube as well as calculated deep root traits. Supplied is word document with key to calculated traits.