

Supplementary Data

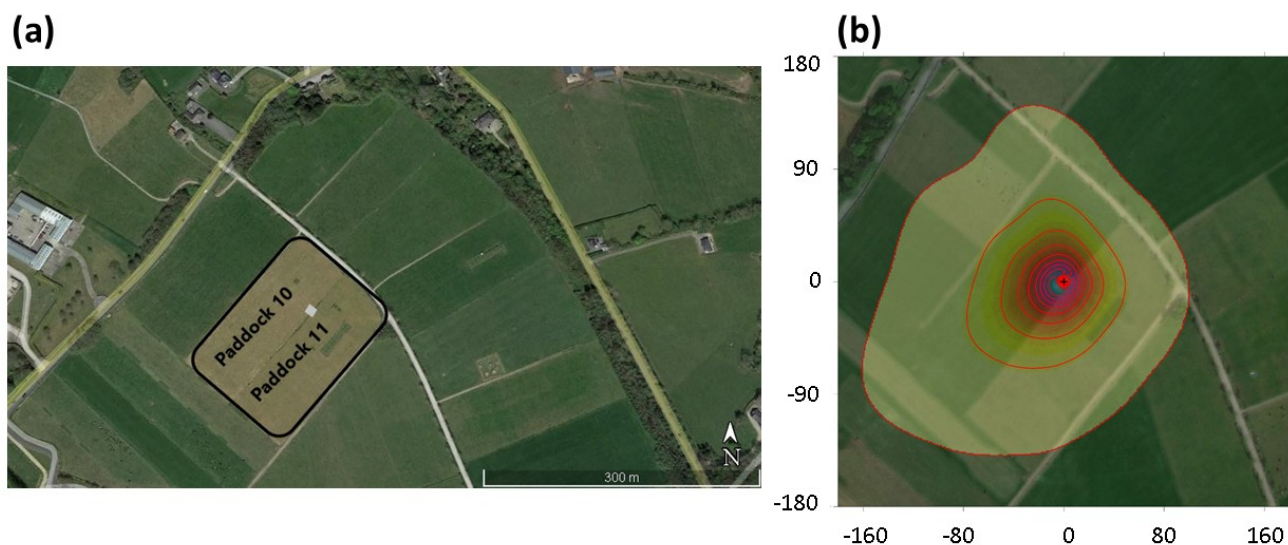


Figure S1: (a) Experimental field site where the black boundary represents the field site which comprises of two paddocks, paddock 10 and 11, and the grey square marks the location of the eddy covariance tower. Image sourced from Google Earth (<https://earth.google.com/web/>). (b) The flux footprint of the EC tower calculated using the footprint model outlined in Kljun et al. (2015). The footprint contour lines represent 10–90% of the flux source in 10% increments. The axis represents distance (metres) from the EC tower (black cross).

Table S1: Summary of the management activities for 2019 and 2020. Orange squares represent the application rate of calcium ammonium nitrate (CAN) and green squares represent silage cuts (2019) or grazing events (2020).

Month	J				F				M				A				M				J				J				A				S				O				N				D			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
2019	CAN application (kg N ha ⁻¹)																																															
Silage cut																																																
2020	CAN application (kg N ha ⁻¹)																																															
Grazing period																																																

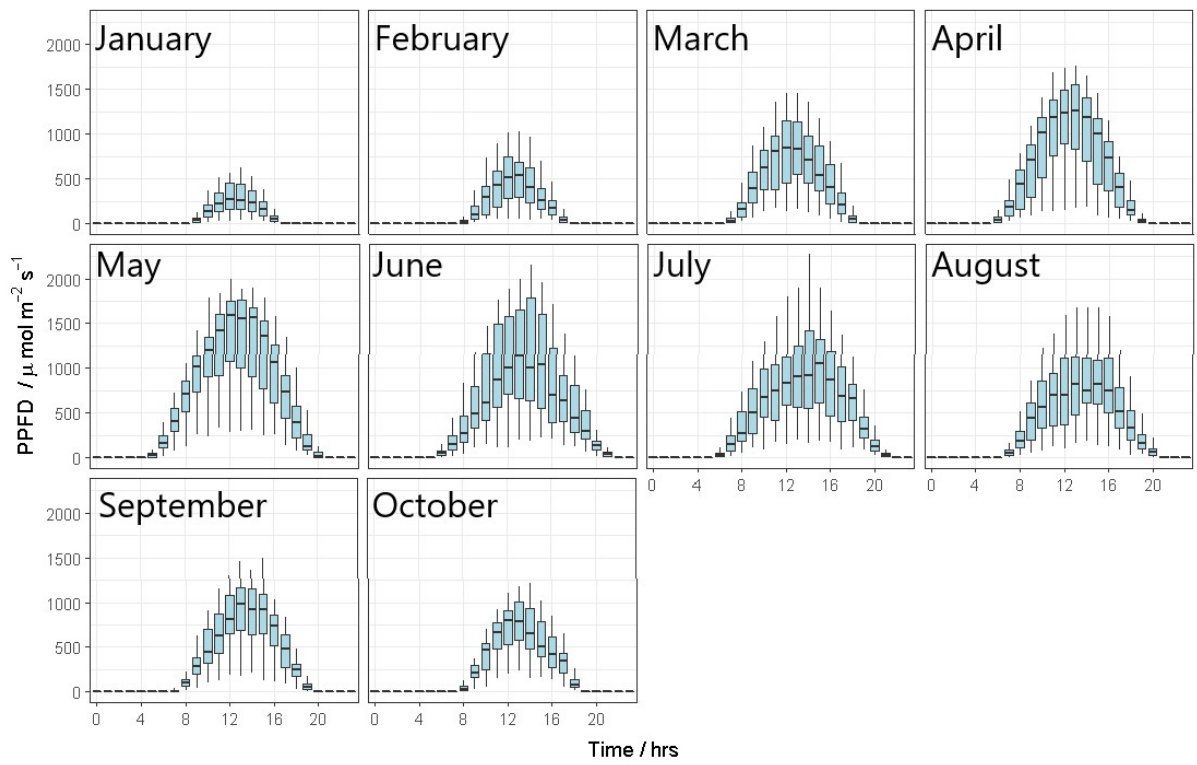
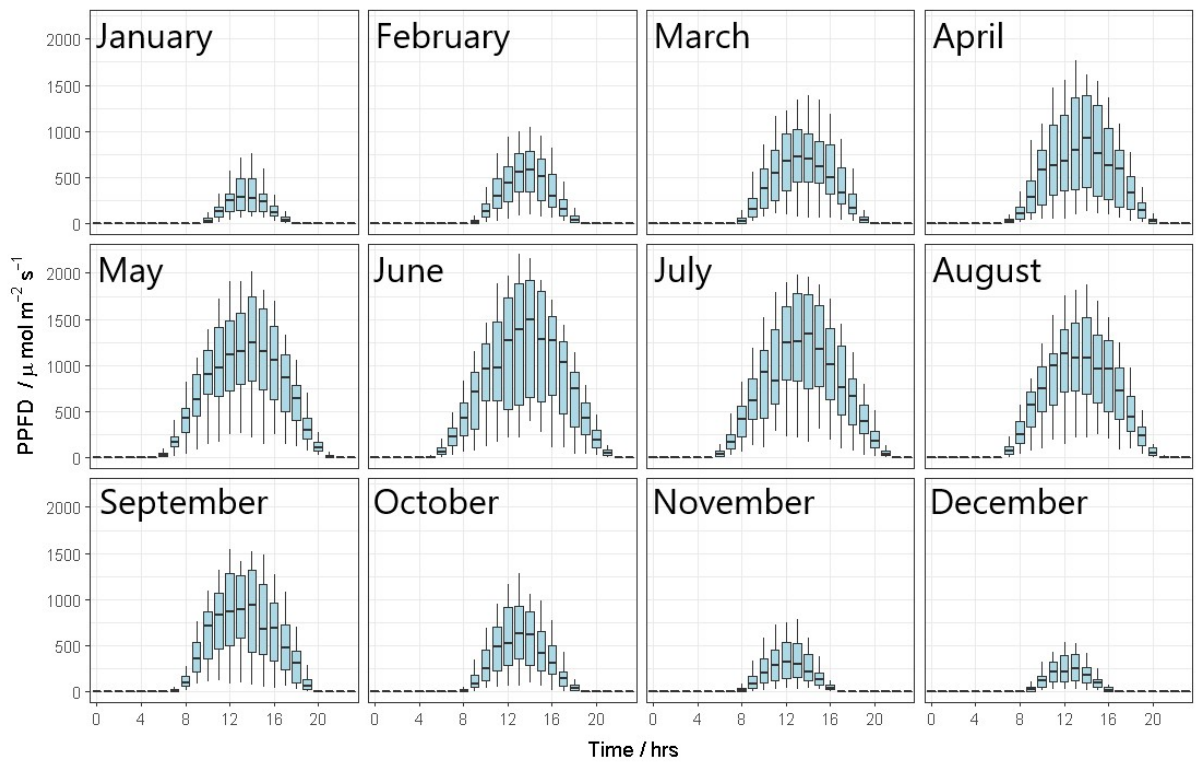


Figure S2: Monthly diurnal trends in the photon photosynthetic flux density (PPFD) measured in 2019 (top) and 2020 (bottom). The centre line in the box plot represents the median and the whiskers either side represent the 95% confidence interval.

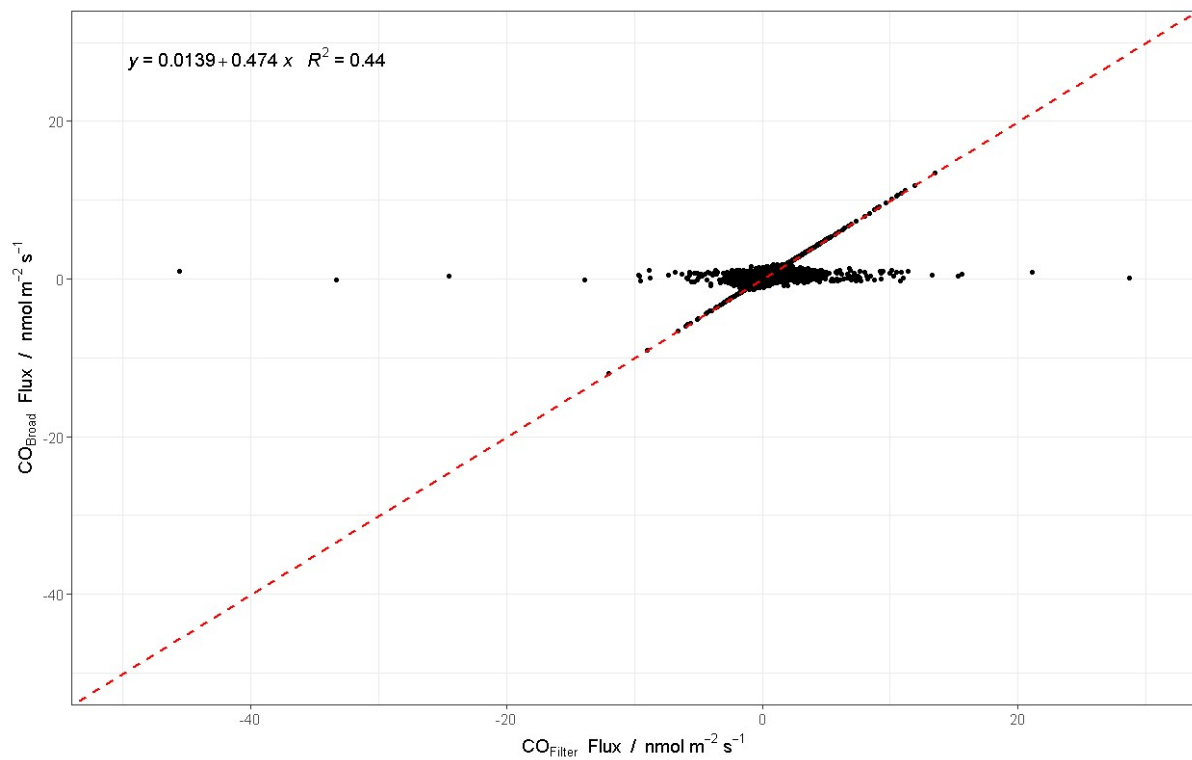


Figure S3: The relationship between modelled CO fluxes including anthropogenic sources (CO_{Broad}) (y-axis) and excluding anthropogenic sources CO_{Filter} (x-axis). The dashed red line represents a 1:1 relationship.

