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Species selection determines carbon allocation and turnover in Miscanthus crops

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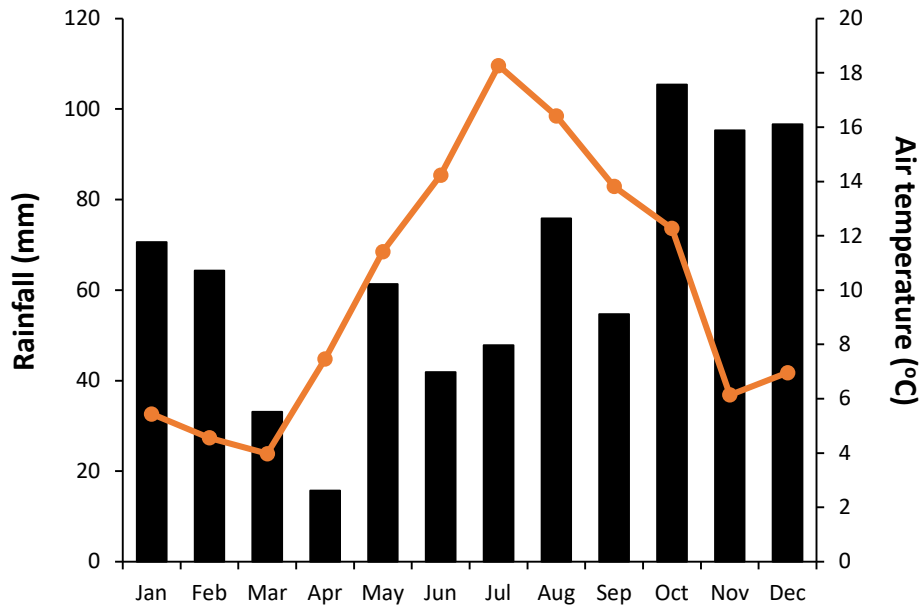
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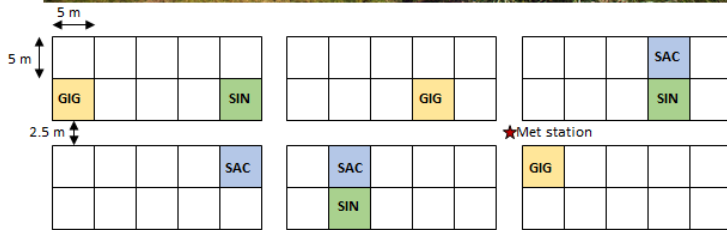
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Supplementary Figure 1. Monthly rainfall values and average monthly temperatures during the investigated year derived from the meteorological station installed in the field trial.



Supplementary Figure 2 Experimental layout: Aerial picture of the field (photo credit: IBERS) together with the schematic diagram showing the genotypes distribution and the measurements taken at each plot before and after the pulse-labelling.



Pre-pulse measurements

- Air and soil temperatures
- Soil moisture and bulk density
- Standing biomass
- Crop height and yield
- Litter fall
- Plant C and N contents and ^{13}C values (leaves, stems, rhizomes and roots)
- Soil C and N contents and ^{13}C values (0-10, 10-20 and 20-30 cm)
- Soil respiration

Post-pulse measurements

(0, 0.2, 1, 3, 7, 14, 28, 56, 84, 130, 190 days)

- Air temperature
- Soil temperature
- Soil moisture
- Standing biomass
- Soil respiration
- $^{13}\text{CO}_2$ excess

- Plant C and N contents and ^{13}C values (leaves, stems, rhizomes and roots)
- Rhizosoil C and N contents and ^{13}C values
- Plant C and N contents and ^{13}C values (0-10, 10-20 and 20-30 cm)

Supplementary Figure 3 Average monthly air and soil temperatures and soil moisture content during the pulse-labelling experiment: (a) *Miscanthus x giganteus* (GIG), (b) *Miscanthus sinensis* (SIN) and (c) *Miscanthus sacchariflorus lutarioriparius* (SAC).

