

Readme file for LegacyEffect_dataset.csv

Title: Grassland legacy effects on yield of a follow-on crop in rotation strongly influenced by legume proportion and moderately by drought

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Dataset contains the dry matter and nitrogen yield responses of a *Lolium multiflorum* crop (summed across harvests). The *L. multiflorum* crop was sown on plots comprising grassland communities of one to six species (and one to three functional groups) that were growing for the previous two years.

An experimental summer drought was implemented on half of each plot during the grassland phase but not the crop phase.

Data were collected in Wexford, Republic of Ireland (52.299584, -6.506458) in 2020.

Date of creation: 20/03/2022

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Dataset contains:

- 86 observations (rows) + 1 row header
- 12 variables (columns)
- Column delimiter = ,
- Missing value = .

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Variable	Format	Descriptions
Plot	numeric	Number of the main plot, each comprising a pair of rainfed/drought split-plots of the same stand located next to each other in the field
Drought	numeric	whether experimental drought stress was applied (1) or not (0) (dummy variable)
Nfert	numeric	Quantity of nitrogen fertiliser applied during the grassland phase ($\text{kg ha}^{-1} \text{ yr}^{-1}$)
XN	numeric	Only for Lp monocultures: if Nfert=300 (high rate), XN=1 and Lp=0; otherwise, XN=0 (dummy variable).
Lp	numeric	Sown proportion of <i>Lolium perenne</i> for the grassland phase
Pp	numeric	Sown proportion of <i>Phleum pratense</i> for the grassland phase
Tp	numeric	Sown proportion of <i>Trifolium pratense</i> for the grassland phase
Tr	numeric	Sown proportion of <i>Trifolium repens</i> for the grassland phase
Ci	numeric	Sown proportion of <i>Cichorium intybus</i> for the grassland phase
Pl	numeric	Sown proportion of <i>Plantago lanceolata</i> for the grassland phase
DMY	numeric	Dry matter yield of <i>Lolium multiflorum</i> harvested over the 2020 growing season (t ha^{-1})
NY	numeric	Nitrogen yield of <i>Lolium multiflorum</i> forage harvested over the 2020 growing season (kg ha^{-1})