**Description of data files and tasks:**

The csv files in this folder contain summaries of input and output of a crop simulation model run with various inputs. Each row corresponds to a single simulation. The column headers are:

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Metsite: the weather station used

Year: the year of the simulation

N: the fertilizer rate (kg/ha)

DE: the sowing density (plants/m)

H: the initial water content (% of capacity)

S: sowing date

CU: cultivar name

Pawc: soil plant available water capacity (mm)

Ylds: yield

Rest of columns: summary of weather for that year

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Possible tasks:

1. Assume a given “field” has the following fixed management and soil conditions over time: N, DE, CU, pawc. Build a model that predicts the pawc for a field given only a history of yields and weather\*. Test how the out-of-sample skill changes as you reduce the amount of historical data used from the full record, to the most recent 20 years, to the most recent 10 years.
2. Using only simulations for 1980-2010 for training, predict the yields for a field for 2011-2015 using only weather\* information. Repeat the same using 1990-2010, or 2000-2010.

\*Consider weather to include all of the in-season variables, as well as the value of H which reflects pre-season weather that sets the initial conditions for the season.