

DFW TKNIL Set 2 JIC, Harvest 2018 - Seedproduction



November 4, 2022

To view this study online, go to <https://grassroots.tools/fieldtrial/study/5bc979618dc26d682e4a52>

Programme

Name: Designing Future Wheat
Abbreviation: DFW
Objective: The BBSRC funded Designing Future Wheat Institute Strategic Programme (ISP), spans eight research institutes and universities and aims to develop new wheat germplasm containing the next generation of key traits.
Building on this research we will then provide this new germplasm in a readily accessible and referenced form to commercial crop breeders and the plant science community.
As the global population increases towards 10 billion people, with most increased consumption expected to occur in developing countries, it is anticipated that the world will need to produce 60% more wheat by 2050 to meet global demand. Since it takes between 15 and 20 years for current research to improve wheat varieties grown in farmers' fields, it is imperative that we act now to address problems facing us in the future.
The Designing Future Wheat ISP is a fully integrated, cohesive national UK wheat research programme involving more than 25 groups of scientists across Rothamsted Research (RRES), the John Innes Centre (JIC) and Earlham Institute (EI), with additional contributions from the National Institute of Agricultural Botany (NIAB), Cambridge, the European Bioinformatics Institute (EBI), Cambridge and the Universities of Bristol and Nottingham.

Principal Investigator: Graham Moore (Graham.Moore@jic.ac.uk)
Web Address: <https://designingfuturewheat.org.uk/>
Crop: Wheat

Field Trial

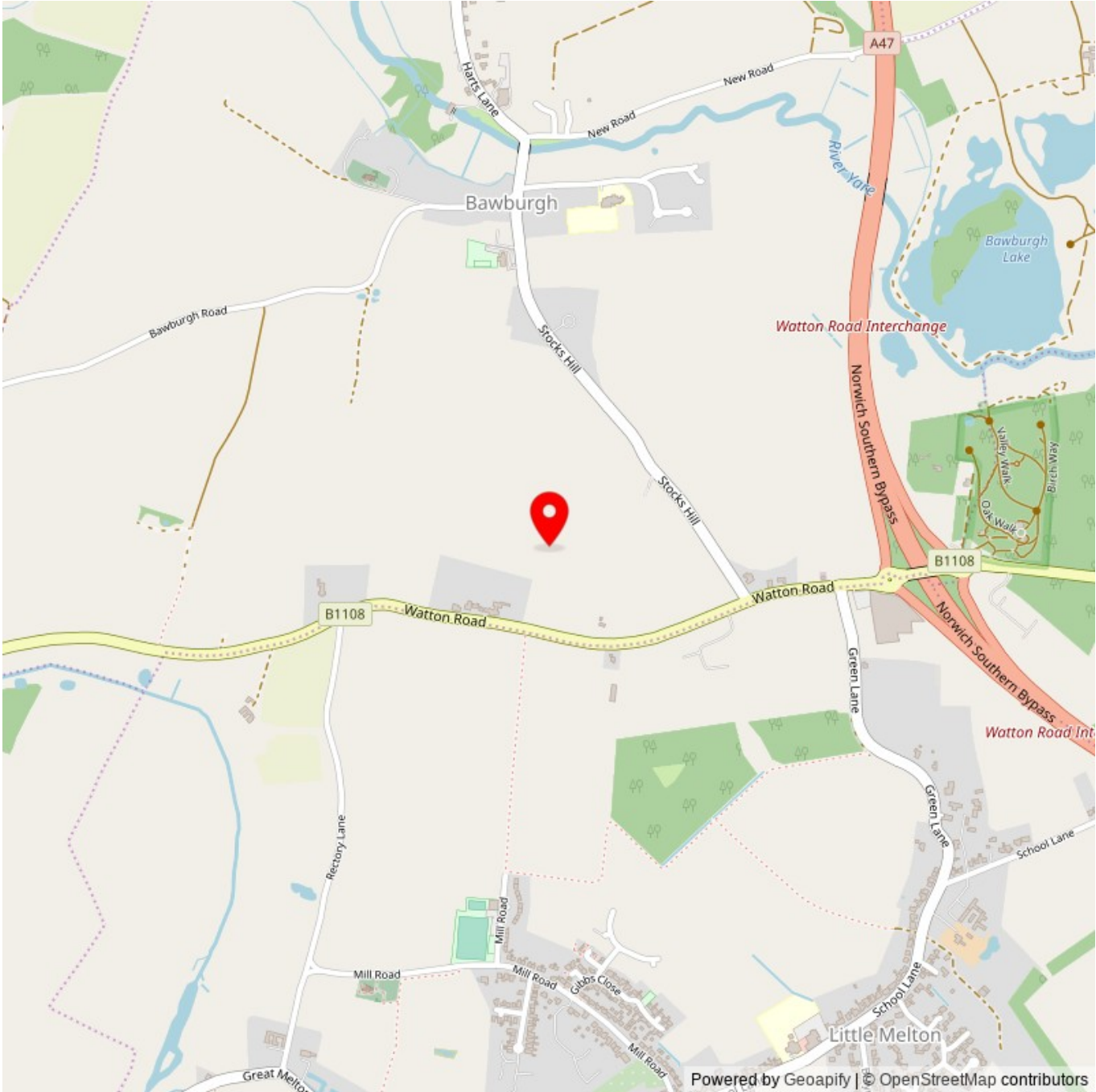
Name: DFW Academic Toolkit Trials
Team: DFW WP3 JIC

Study

Name: DFW TKNIL Set 2 JIC, Harvest 2018 - Seedproduction
Description: NILs carrying different QTL regions identified in the DFW-NAM populations. QTL regions come from the landrace parents from the A.E. Watkins landrace collection.
Sowing Year: 2017
Harvest Year: 2018
Current Crop: Wheat
Design: Two plots per accession in direct vicinity for seed multiplication.
Contact: Simon Griffiths (simon.griffiths@jic.ac.uk)
Curator: Luzie Wingen (luzie.wingen@jic.ac.uk)

Location

Address: Mrs Salih's field, Watton Road, Bawburgh, Norfolk, GB, NR9 3LQ
Latitude: 52.625714
Longitude: 1.185354



Layout

- Number of Plots:** 441
- Number of Rows:** 10
- Number of Columns:** 45
- Number of Replicates:** 2
- Default Plot Width:** 1.50
- Default Plot Length:** 4.00

Measured Variables

GMoi_E_pct

Trait Name: Grain moisture content
Trait Description: Moisture content of grain.
Trait Abbreviation: GMoi
Measurement Name: GMoi Estimation
Measurement Description: Moisture content is determined by drying a grain wheat sample in an air oven and comparing the weight of the sample before and after heating. The amount of weight loss is the moisture content. Moisture content results are expressed as a percentage.
Unit Name: %

GY_Calc_tha

Trait Name: Grain yield
Trait Description: Amount (weight) of grains that was harvested.
Trait Abbreviation: GY
Measurement Name: GY Computation
Measurement Description: Use formulae to calculate grain yield in g/m²
Unit Name: t/ha

GY_M_kgPlot

Trait Name: Grain yield
Trait Description: Amount (weight) of grains that was harvested.
Trait Abbreviation: GY
Measurement Name: GY Measurement
Measurement Description: The weight of the grain harvested is registered on a scale, decide which method suit better for your objectives. In breeding trials, a sample area (rather than the whole plot) is generally used for estimating yield. Discard borders when combine harvest for a better estimation of yield.
Unit Name: kg/plot

Hd_date_ymd

Trait Name: Heading time
Trait Description: Heading time extends from the time of emergence of the tip of the spike from the flag leaf sheath to when the spike has completely emerged but has not yet started to flower.
Trait Abbreviation: Hd
Measurement Name: Hd DS55 date Estimation
Measurement Description: Record date of heading (DS55) when 50% of the spike is emerged (i.e., middle of the spike at the flag leaf ligule) on 50% of all stems.
Unit Name: yyyyymmdd

Hd_dto_day

Trait Name: Heading time
Trait Description: Heading time extends from the time of emergence of the tip of the spike from the flag leaf sheath to when the spike has completely emerged but has not yet started to flower.
Trait Abbreviation: Hd
Measurement Name: Hd DS55 days Computation
Measurement Description: Number of days required from sowing to spike emergence from the flag leaf (DS55). However, when planting in dry soils in dryland areas it is counted from the first day of rainfall or irrigation which is sufficient for germination, or from emergence date.
Unit Name: day

PH_M_cm

Trait Name: Plant height
Trait Description: Height of plant from ground to top of spike, excluding awns.
Trait Abbreviation: PH
Measurement Name: PH Measurement
Measurement Description: Measure the length of individual culms from soil surface to the tip of the spike (do not include awn) and record to the nearest centimeter. (Average of 4-10 plants/culms per plot).
Unit Name: cm
