DELIVERING SUSTAINABLE WHEAT

MAY 2025



We are pleased to present the May 2025 edition of our newsletter. The main highlights from across DSW this month include:



Equipping the next generation of female leaders in wheat research



Starship discovery reveals new frontiers of fungal genome evolution



Sugar signalling applications could boost wheat yields by up to 12%

ACTIVITIES, ACHIEVEMENTS & AWARDS

This year Monogram was hosted at Prifysgol Aberystwyth University 7th-10th April. We heard some brilliant talks and fantastic posters presented by DSW members including MECEA Winners <u>Isabel Faci-Gomez</u> and <u>Katie Long</u>. Congratulations to poster award winners Adam Gicgier, Anisa Blower, Becca Testa, Bernice Waweru, Jack Walker & Miguel Gonzalez-Sanchez - <u>LinkedIn</u>.

RECENT PUBLICATIONS

<u>Burrows et al. 2025</u>. Partial redundancy buffers deleterious effects of mutating *DNA methyltransferase 1-1 (MET1-1)* in polyploid wheat.

Grey et al. 2025. Improved Extraction Methods to Isolate High Molecular Weight DNA From Magnaporthaceae and Other Grass Root Fungi for Long-Read Whole Genome Sequencing.

<u>Griffiths et al. (2025).</u> Membrane-permeable trehalose 6-phosphate precursor spray increases wheat yields in field trials.

<u>Hill et al. 2025</u>. Evolutionary genomics reveals variation in structure and genetic content implicated in virulence and lifestyle in the genus Gaeumannomyces.

<u>Hill et al. 2025</u>. Starship giant transposable elements cluster by host taxonomy using k-mer-based phylogenetics.

<u>Phillips et al. 2025</u>. *GIBBERELLIN 3-OXIDASE* genes regulate height and grain size in bread wheat .

Raza et al. 2025. Future crop breeding needs to consider future soils.

Rickard et al. 2025. Field plants strategically regulate water uptake from different soil depths by spatiotemporally adjusting their radial root hydraulic conductivity.

DATES FOR YOUR DIARY

May-June 2025 NIAB Open Days

22 May 2025 <u>DSW Online Talk—Annis Richardson</u> 3 June 2025 <u>DSW Online Talk—Christophe Lambing</u>

5 June 2025 DSW Mini-symposium

11-12 June 2025 <u>Cereals (Leadenham, Lincs)</u> 1-3 July 2025 <u>Breeders Toolkit trial site visits</u>

8 July 2025 DSW Online Talk—Anna Backhaus

STAY CONNECTED





