Inflorescence structure

H. distichum  Two-rowed barley

H. hexastichum  Six-rowed barley
Inflorescence structure
Nitrogen Use Efficiency

Traits: Phenology assessments for GS 31, GS 61 and GS 87
   Electrical capacitance
   GS 61: Fertile shoot.plants⁻¹, Above ground biomass, Straw N content
   GS 87: Yield components: Plants.m⁻²; Fertile shoots.plant⁻¹; grains.ear⁻¹; thousand grain weight: Harvest index; Grain N content, Straw N content

Nitrogen rates:
N1 : no nitrogen applied
N2 : N available = 1/3 of N3
N3 : N available to obtain optimum yield at a site
Malting Quality

One of main end uses of barley

Malting quality – complex phenotype

Grain protein level, malt extract %, wort-soluble protein, diastatic power, $\alpha$-amylase activity, wort – $\beta$ glucan, etc.

Micro-malting in breeding/testing – proof on larger scale (variety recommendation)

Ultimately it’s an end-user defined trait

Further traits ‘Processability’ in brewhouse etc.
Recombination Frequency

Interest in manipulating recombination distribution and frequency in barley

Interrelationship of pairing/cross-overs/synapsis

Metaphase I seven ring bivalents