

The logo for Biomass Connect features a stylized 'bc' where the 'b' is dark blue and the 'c' is green with a circular arrow. To the right, the words 'biomass' and 'connect' are stacked in a dark blue, sans-serif font.

biomass connect

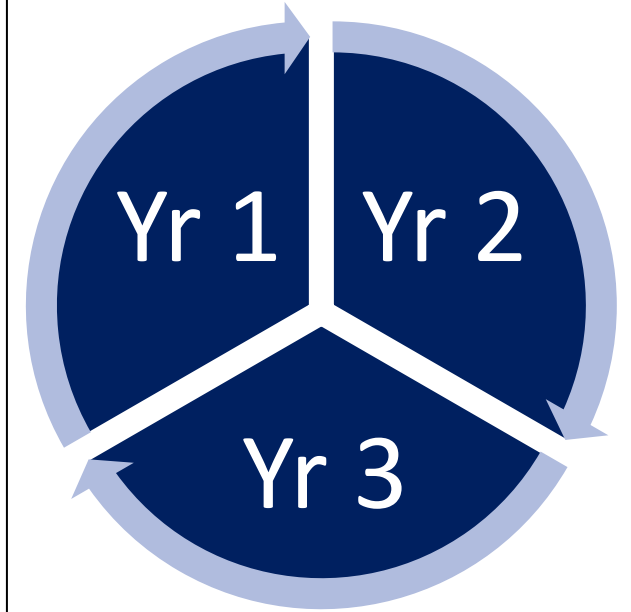
William Macalpine

Rothamsted Research

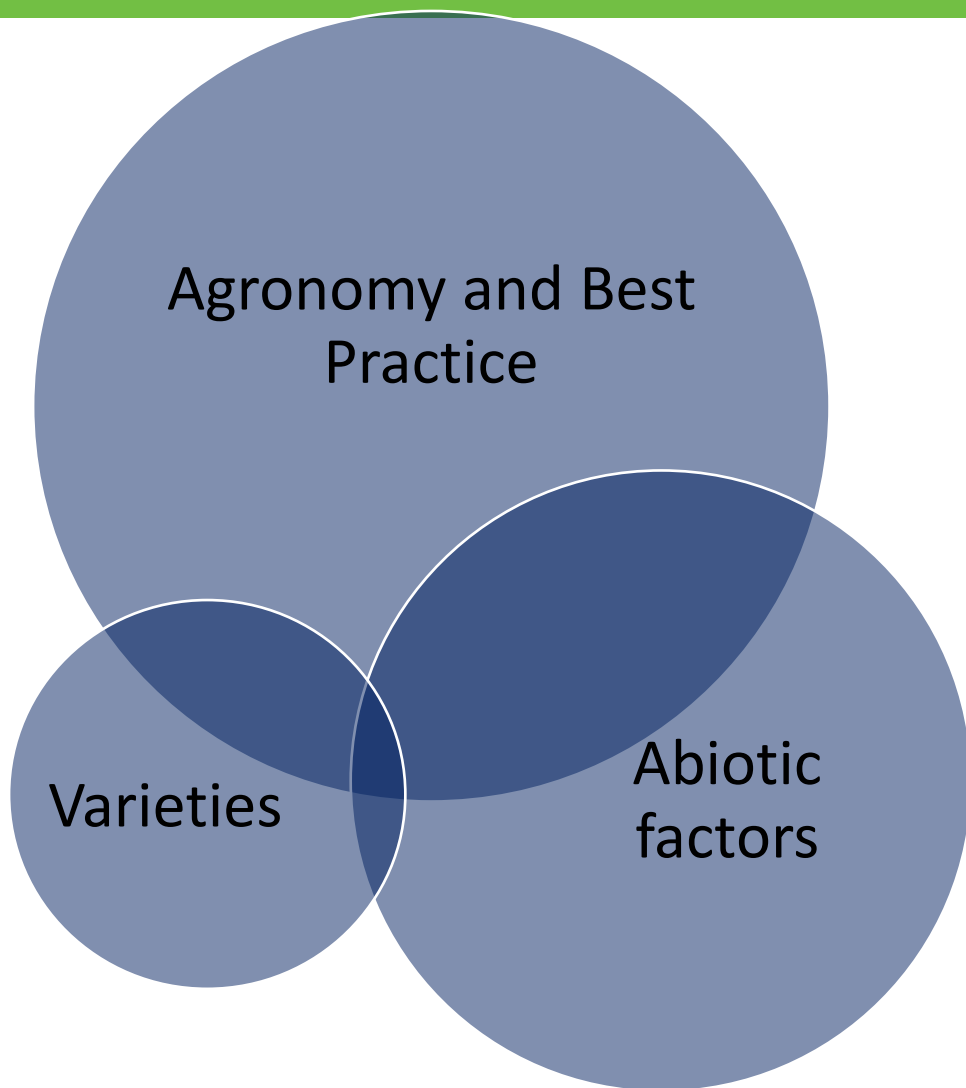


Department for
Energy Security
& Net Zero

SRC willow coppice cycle



SRC willow varieties and learnings from AWBD



Biomass Connect Webinar 1



The first of our Webinar Series – Land preparation – starting off on the right foot with speakers Mike Cooper from Miscanthus Nursery Ltd. and David Watson from Energy Crops [...]

Harvesting: Tailor to your end use / market

JF Energy Harvester



Forage harvester



Sugar cane harvester



Whole rod harvester



Bio-baler



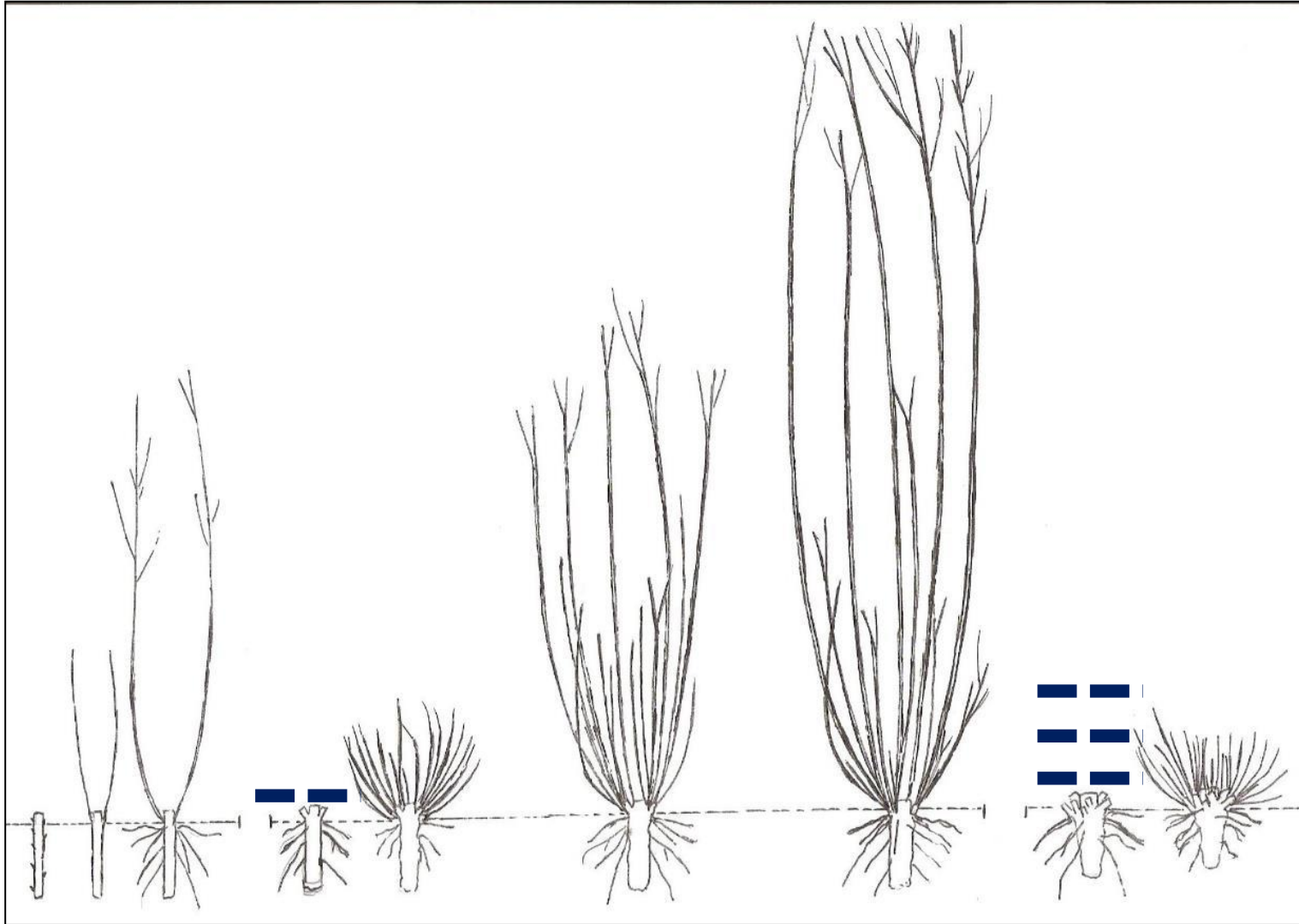
Large, Medium or Small chip



Billets: lengths of stem



Consistent cutting height



UK Centre for
Ecology & Hydrology



ROTHAMSTED
RESEARCH



1872 PRIFYSGOL
ABERYSTWYTH
UNIVERSITY

afbi

AGRI-FOOD
& BIOSCIENCES
INSTITUTE



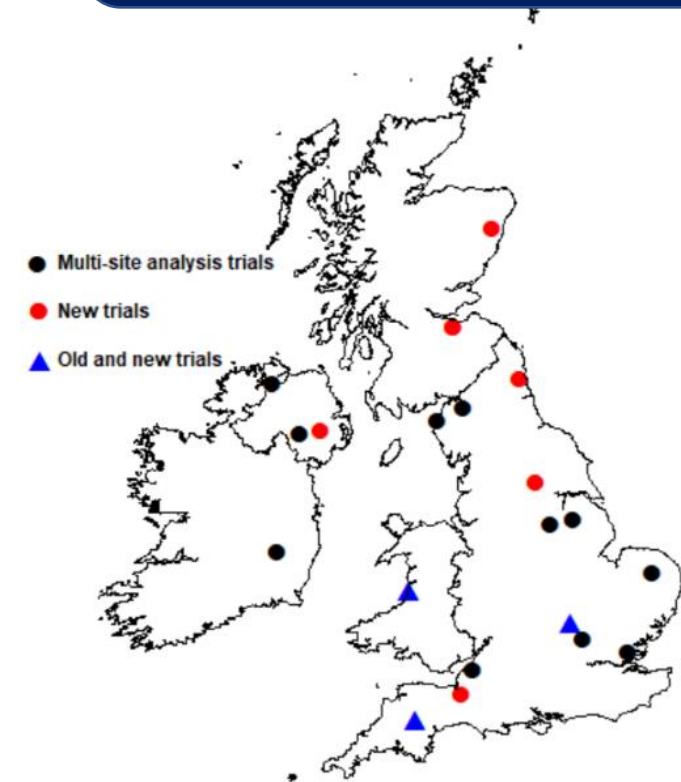
Newcastle
University



BGI Ltd
Bio Global Industries

AWBD SRC willow varieties

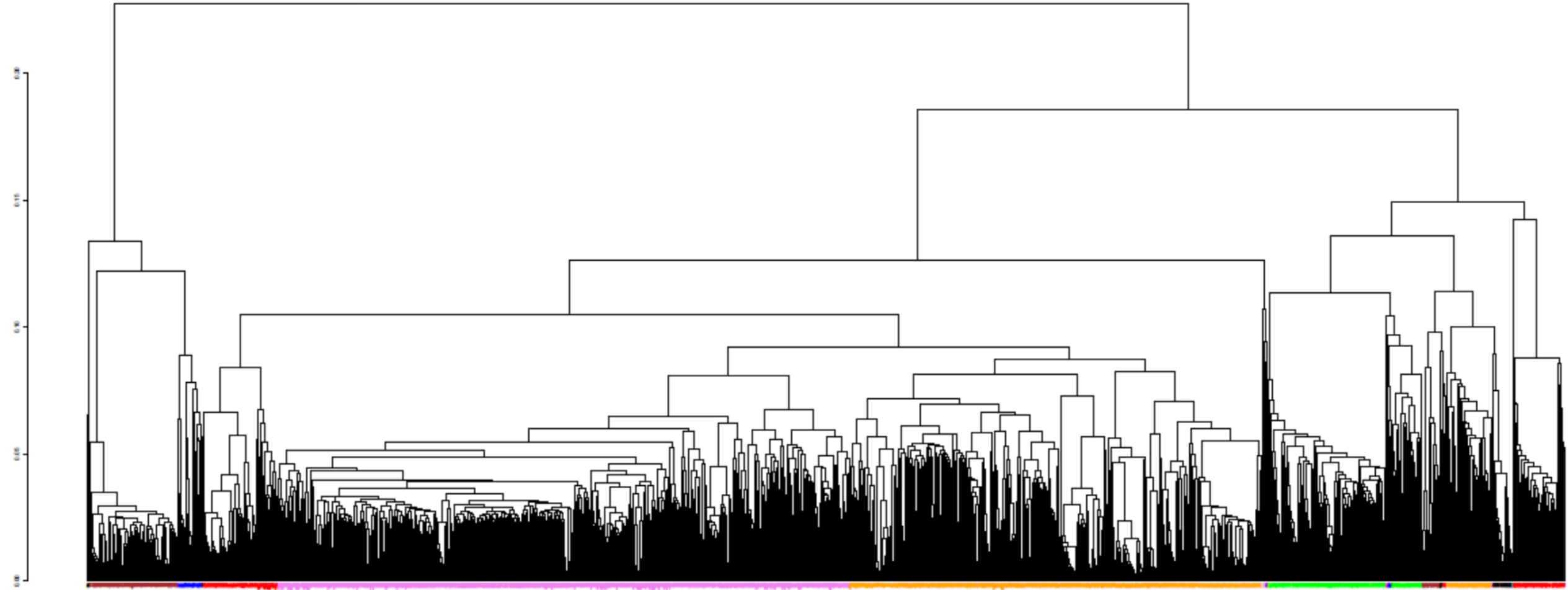
Aim: help growers minimise risk by making informed choices and when choosing to grow short rotation coppice willow (SRCw) for biomass



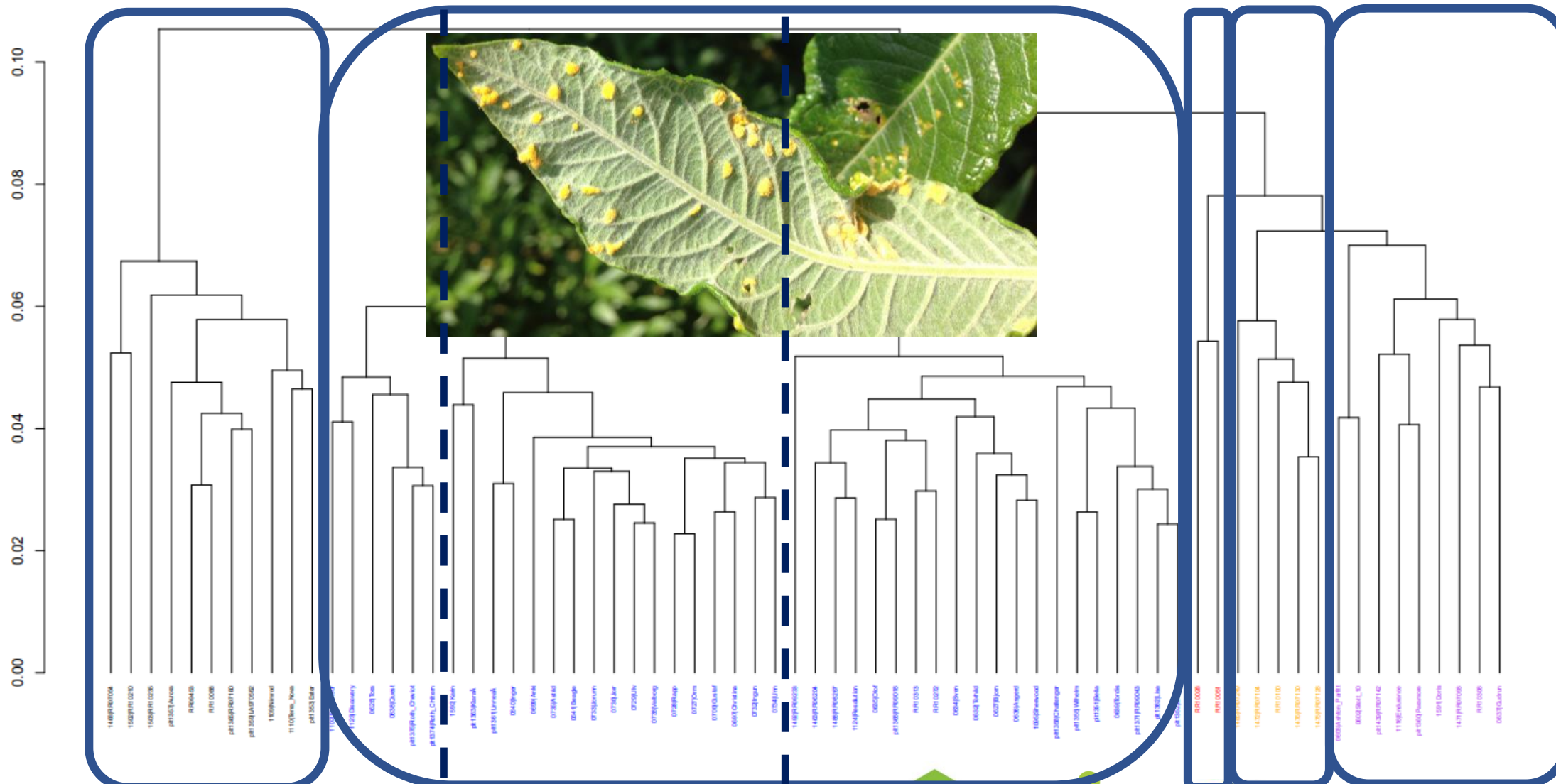
- multi-site statistical analysis
- trials planted between 1997 and 2016
- 71 distinct harvest events
- Biomass yield ($\text{t ha}^{-1} \text{ yr}^{-1} \text{ DW}$)
- Dry matter content (%DM) of the wood at harvest (%DM) data, from trials planted between 1997 & 2016
- Weather effects upon SRCw biomass yield were quantified



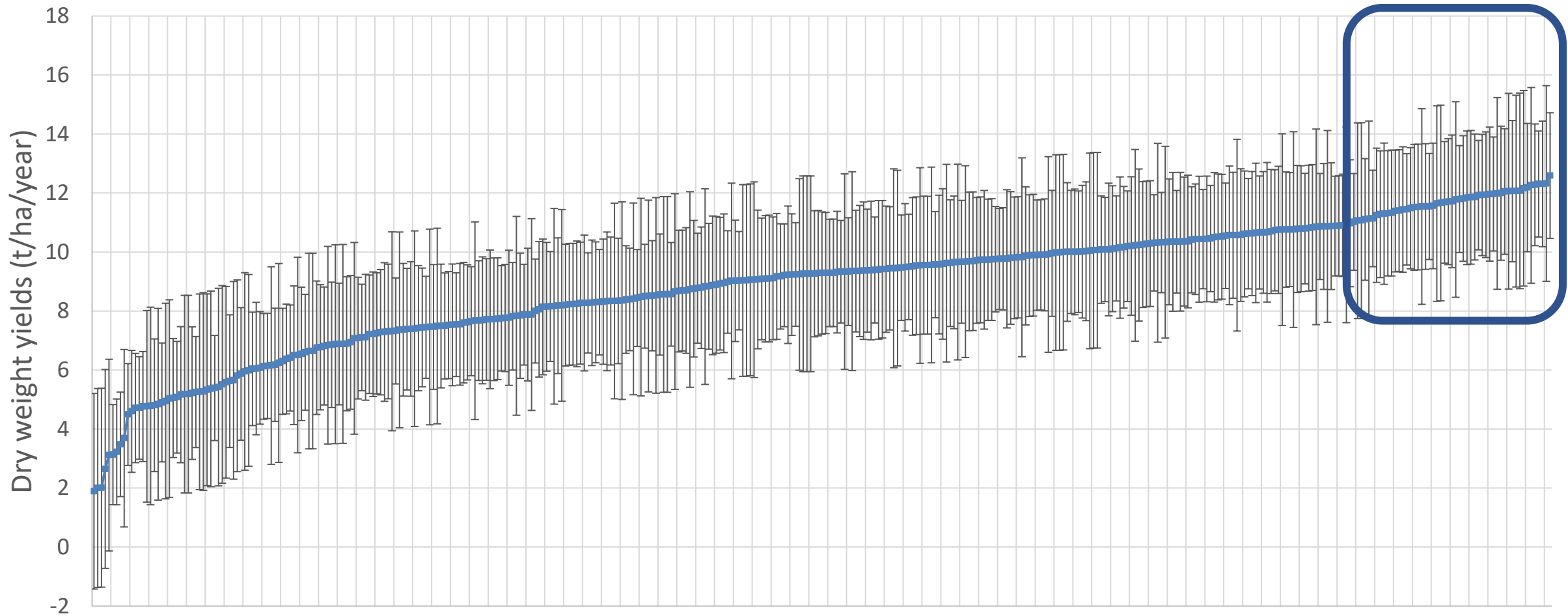
Accelerating Willow Breeding and Deployment (AWBD)



Accelerating Willow Breeding and Deployment (AWBD)

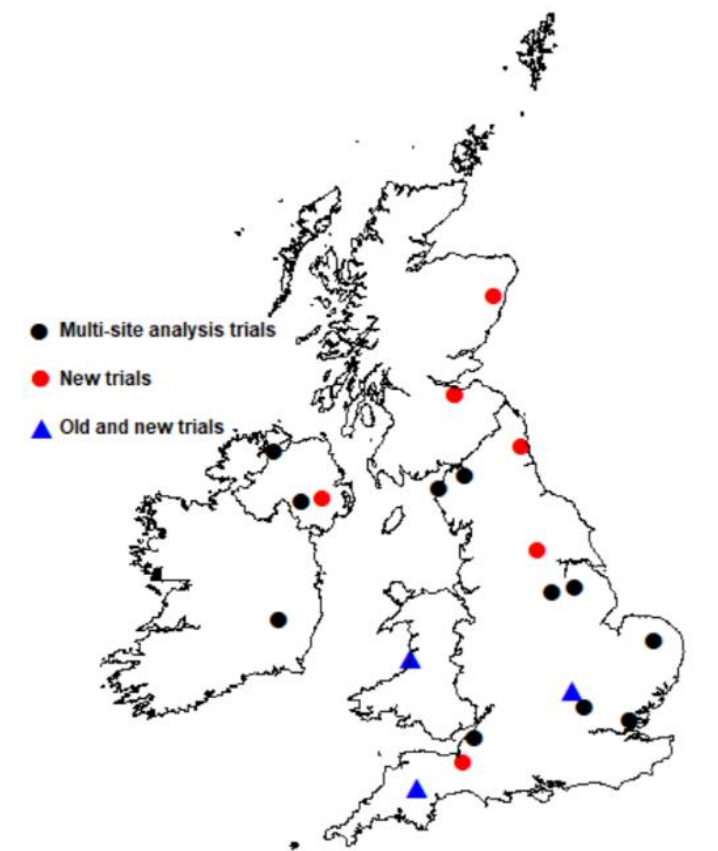


Genotype means from mixed model analysis (with mean SEDs)



AWBD

Diversity Group [†]	Breeder*	Gender	Variety	Yield t ha ⁻¹ yr ⁻¹ DW	Dry Matter % winter harvest
IIIc	RR	F	Roth Tryfan	12.30	45.0%
I	EWB	F	Ester	11.99	47.3%
III	EWBP	F	Advance**	11.99	43.3%
IIIb	SE	F	Lisa	11.96	46.5%
I	EWBP	F	Aurora	11.86	47.7%
IIIb	EWB	F	Emma	11.84	48.6%
IIIb	RR	M	Roth Drum	11.54	45.4%
IIIa	EWBP	F	Challenger	11.44	48.2%
IIIb	EWBP	F	Resolution	11.14	46.5%
II	EWBP	F	Endurance	11.02	51.3%
IIIa	RR	F	Roth Cheviot	10.90	45.9%
IIIb	SE	M	Sven	10.89	46.3%
IIIb	SE	M	Olof	10.88	46.4%
IIIc	EWBP	M	Alert	10.52	48.6%
IIIa	SE	F	Inger	10.50	46.9%
IIIb	RR	F	Roth Chiltern	10.44	46.2%
I	RR	F	Roth Skiddaw	10.43	49.4%
IIIb	EWB	M	Wilhelm	10.36	46.0%
IIIb	RR	F	Roth Hambleton	10.35	45.2%
IIIb	SE	F	Tordis	10.32	47.3%
IIIc	SE	F	Tora	10.31	45.0%
IIIa	RR	F	Roth Mourne	9.77	49.8%
IIIb	SE	F	Torhild	9.33	47.0%
II	EWBP	F	Paramore	9.29	48.4%
IIIb	SE	F	Klara	9.29	48.0%
III	EWBP	F	Meteor**	9.26	49.0%
I	EWBP	F	Terra Nova	8.44	45.0%
IIIb	EWB	F	Bella	8.27	49.0%
IIIb	SE	F	Linnea	8.20	44.3%



† See Table 2

*EWB European Willow Breeding, EWBP European Willow Breeding Partnership, RR Rothamsted Research, SE Salix Energy

**missing genetic diversity data for Advance, Meteor