

Recommended Lists update

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Recommended Lists Manager



- Change to process
- New varieties of interest
- Clubroot
- Update on RL research



Changes to process

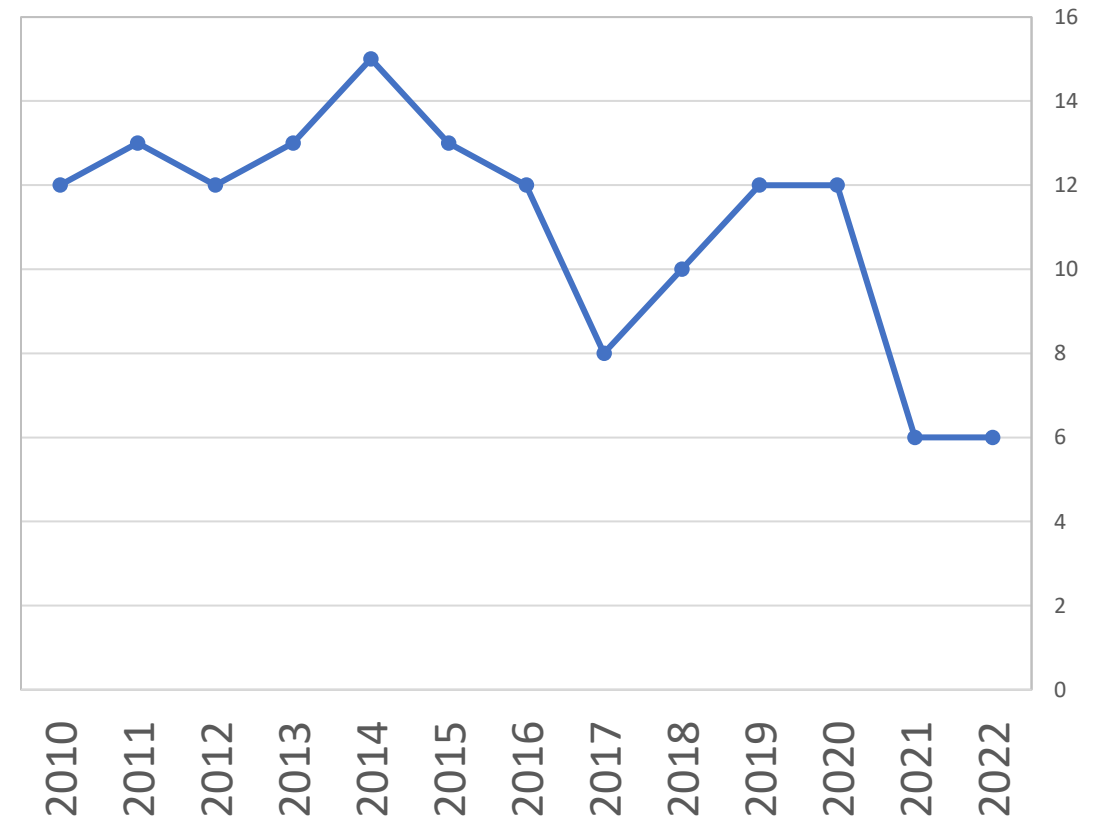
Keeping conventional varieties on the list



Conventional varieties in crisis?

- Number of conventional varieties on the RL is declining
- 30-40% of the WOSR area is drilled with conventional varieties
- Next year only one conventional candidate
- Changed the RL process so that conventional varieties are compared against other conventional varieties

Number of conventional varieties on the RL



Interesting new varieties?



UK and E/W non specialist hybrids

	New			
	PT303	LG Auckland	LG Adonis	Ambassador
UK gross output	107	107	107	106
E/W gross output	108	108	108	106
N gross output	104	[104]	103	104
Stem stiffness	8	7	8	8
Earliness of maturity	5	6	5	6
Stem canker	7	7	8	7
Light leaf spot	7	7	7	7
TuYV resistant	Y	Y	Y	Y
Pod shatter resistant	-	Y	-	Y

Sclerotinia tolerant



RECOMMENDED LISTS

Diversity in canker resistance genetics

	New		
	Tennyson	Flemming	Ambassador
UK gross output	103	103	106
E/W gross output	104	104	106
N gross output	[95]	[97]	104
Stem stiffness	7	9	8
Earliness of maturity	5	4	6
Stem canker	9	8	7
Light leaf spot	7	7	7
TuYV resistant	Y	Y	Y
Pod shatter resistant	-	-	Y

- Tennyson and Flemming high stem canker ratings have different genetic basis than most varieties
- Most varieties use Rlm7, but phoma is starting to overcome this resistance.
- The frequency of isolates virulent on Rlm7 is low, but increasing
- Tennyson - polygenic, not based on Rlm7
- Flemming - contains RlmS

New conventional varieties

	New			
	Annika	Amarone	Acacia	Campus
Scope of recommendation	UK	N	UK	NA
UK gross output	103	101	104	101
E/W gross output	103	100	104	100
N gross output	[102]	105	104	103
Stem stiffness	8	8	9	8
Earliness of maturity	4	5	5	5
Stem canker	6	6	5	6
Light leaf spot	7	7	6	6
TuYV resistant	Y	Y	-	-
Pod shatter resistant	-	-	-	-

Winter oilseed rape

New specialist varieties – VTTSH

	New		DK Imprint CL	PT279 CL
	LG Constructor CL	Matrix CL		
Scope of recommendation	UK	UK	UK	E/W
UK gross output	96	99	92	94
E/W gross output	97	100	92	94
N gross output	[94]	96	91	92
Stem stiffness	8	8	7	8
Shortness of stem	6	5	6	6
Earliness of maturity	6	6	5	6
Stem canker	6	8	8	5
Light leaf spot	6	6	6	5
TuYV resistant	Y	Y	-	-
Pod shatter resistant	Y	Y	Y	-

Winter oilseed rape

New specialist varieties – Clubroot resistant

	New	
	Crossfit	Crocodile
Scope of recommendation	E/W	E/W
UK gross output	98	100
E/W gross output	99	101
N gross output	[92]	96
Stem stiffness	7	7
Shortness of stem	6	6
Earliness of maturity	6	6
Stem canker	9	4
Light leaf spot	5	6
TuYV resistant	Y	-
Pod shatter resistant	Y	-

Clubroot

It hasn't gone away



Clubroot out of the blue

- Trial site in N. England with no history of clubroot
- Soil pH 6.6 so limed prior to drilling (2.5 t/ha CKD)
- Drilled 20th August
- By October clubroot symptoms discovered in trial
- Clubroot symptoms were monitored and the trial taken to yield



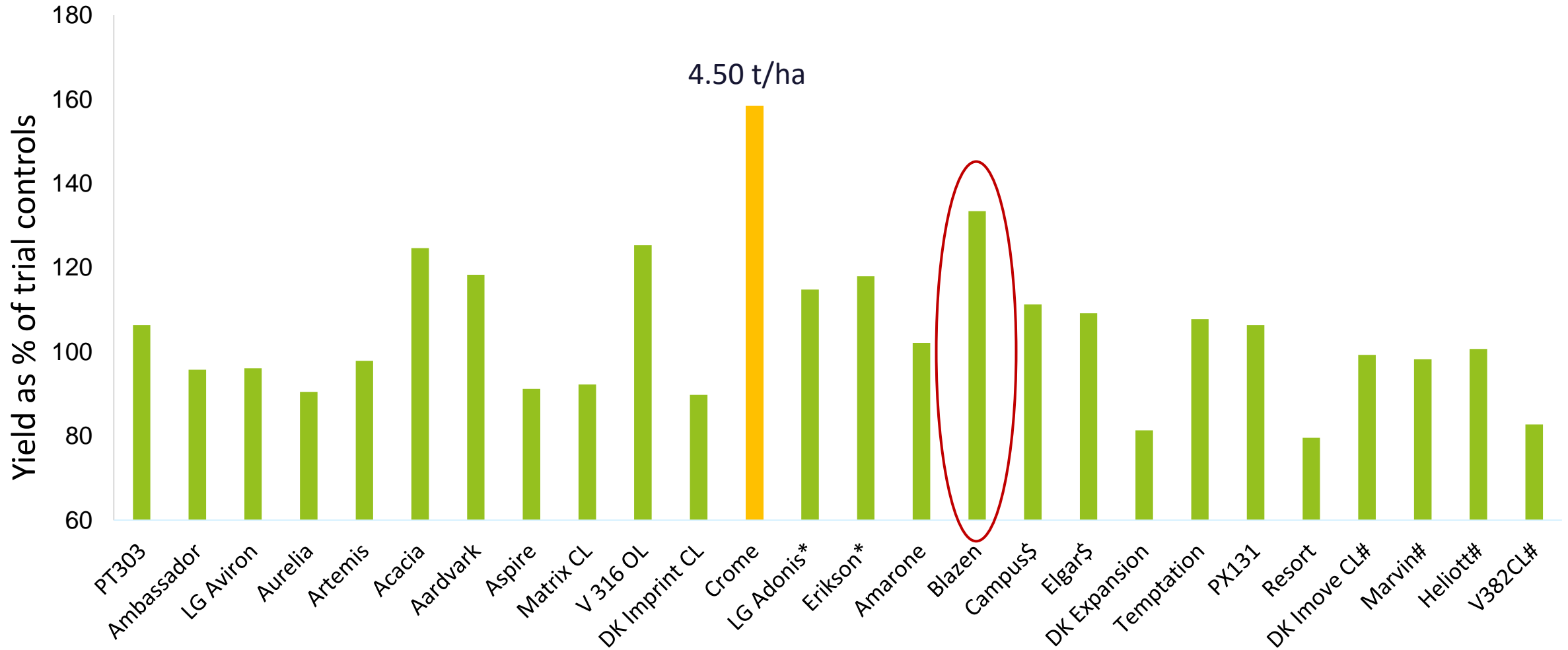
Symptoms

10th October



5th May

Impact on Yield



* Only recommended for the E/W, \$ no longer on the Recommended List, not added to the Recommended List

Rising clubroot risk?

- Infection is most likely to occur in warm, wet soils (optimum temperature 16–25°C)
- Crops are most susceptible to infection from August to mid-September
- More frequent cropping increases risk
- CSFB has meant less oilseed rape in the rotation
- Only around half the number of fields are limed as in the 1980s
- Earlier drilling to avoid CSFB makes crops more vulnerable to infection

Update on RL research



Variety resilience to CSFB

Spring assessments



Can some varieties tolerate larval feeding?

- Observations suggest that
 - some varieties may be less susceptible to larval damage
 - some varieties may be able to recover from larval damage
- Are some varieties more resilient?
- Can we assess this resilience in a meaningful way?

CSFB larval damage scoring

- A new CSFB damage scoring system was tested in 2020 and was used in all trials in 2021
- The 2021 data was analysed alone and then combined with the 2020 data and analysed together



Where next?

- 2021 scores gave statistically significant (but small) differences between varieties
- Combining 2021 and 2020 data resulted in no statistically significant differences between varieties
- Spring 2022 assessments about to happen
- Review the data and see if there are consistent differences between varieties
- Earliest that ratings could be published would be in 2023/24 RL

Autumn vigour

Measuring the undefinable



Autumn vigour

- Key to overcoming CSFB adult feeding pressure?
- Farmers rate it highly in characteristics they favour
- Some varieties are marketed as ‘vigorous’
- What does vigour mean, size, speed?
- How important are weather/soil conditions?

Autumn vigour - what to measure?

2020 Assessments

Time to reach key growth stages*

Biomass sample

Plant population

- Significant change to the protocol between 2020 and 2021
- Aimed to simplify and reduce workload for trial operators

*2 true leaves fully expended and 4 true leaves fully expanded

2021 Assessments

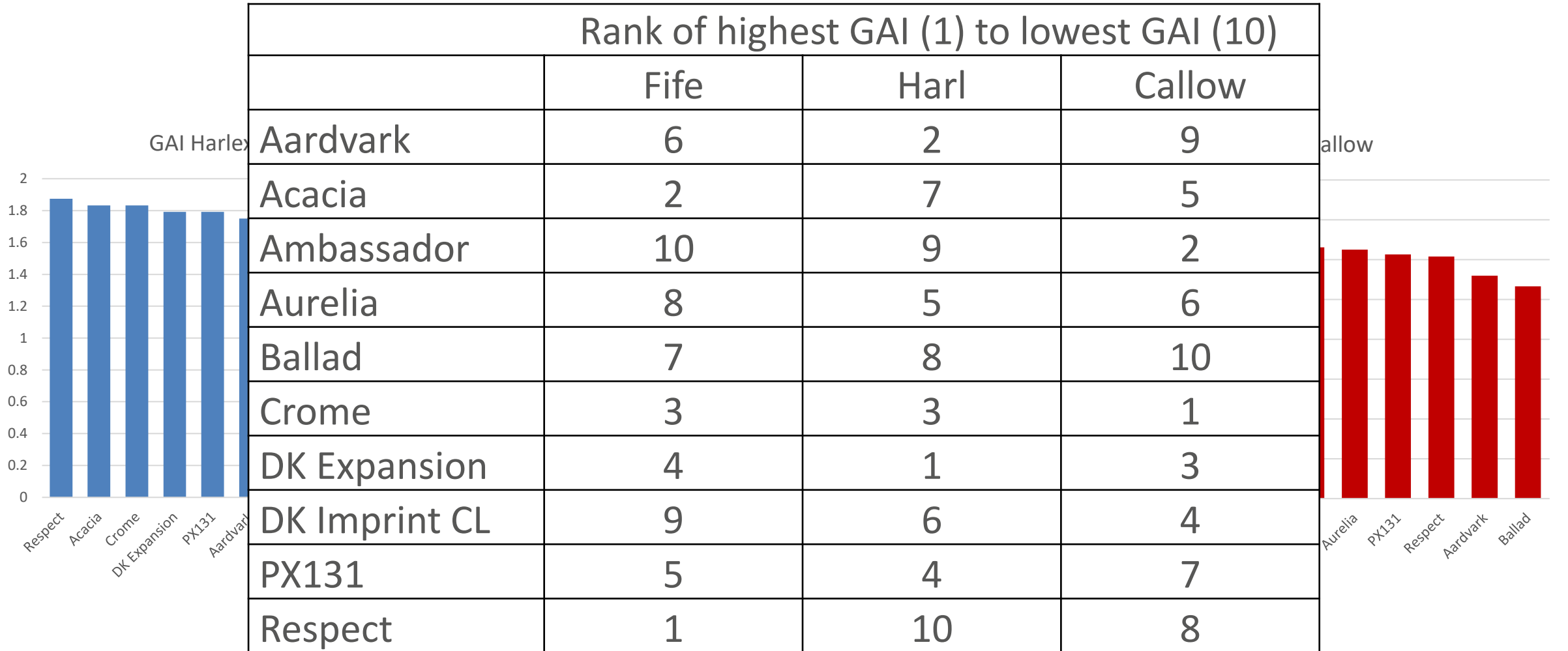
Development stage at specific time points after drilling*

Biomass sample

Plant population

*Plant height, GS, GAI

2021 GAI at '9' weeks



Where next?

- We will review all the different measures to determine if any are discriminatory
- Review the protocol with trial operators
 - What worked?
 - What didn't work and why not?
- Depending on what the outcome is continue in autumn 2022
- Vigour ratings – not before RL 2024/25

Summary

- Lots of new varieties but across different variety types; hybrid, conventional, clubroot, Clearfield and semi-dwarf
- Yields and disease resistance still improving with pod shatter resistance and TuYV becoming more common
- Vigour and variety resilience being investigated
- Problems like clubroot have not gone away

Thank you for listening

The RL Team

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Thank you