

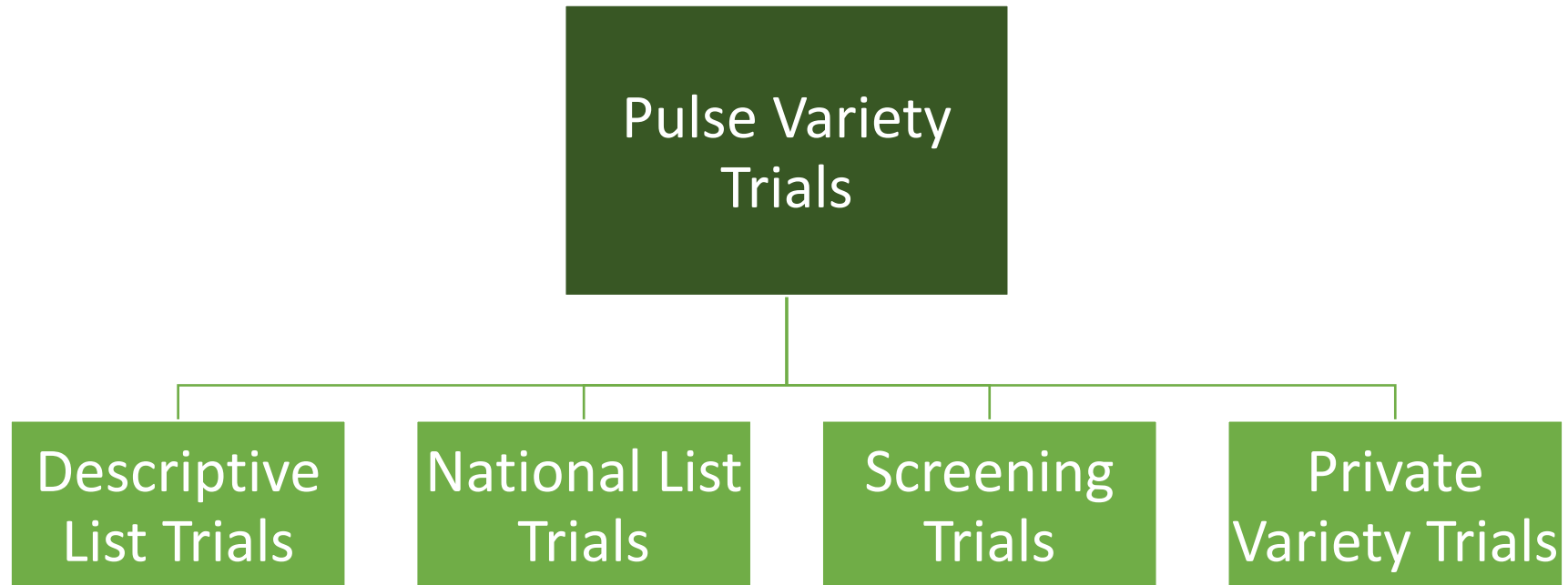


PGRO Pulse Variety Evaluations

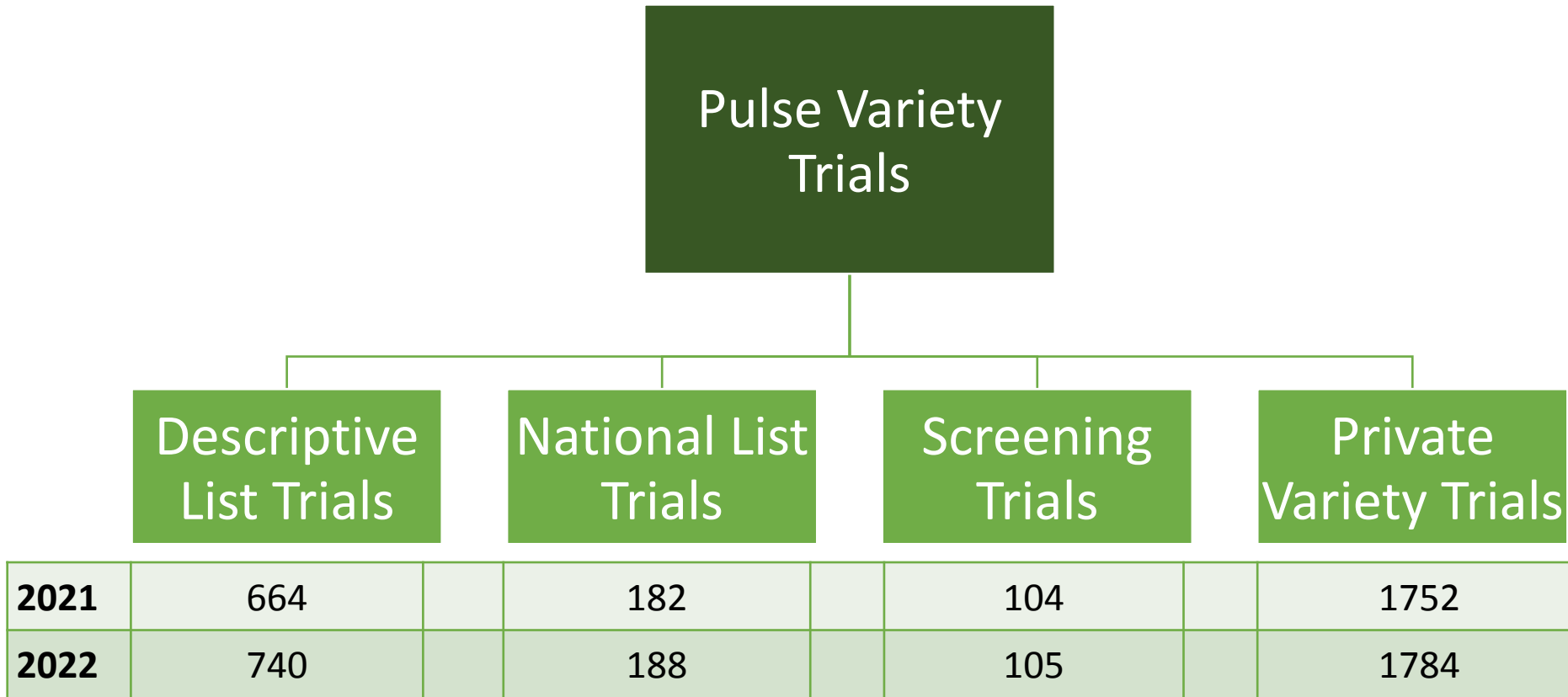
PGRO/Syngenta Roadshow 2023

Chris Judge

Pulse Varieties Trials



Pulse Varieties Trials



Trial Differences



National List

- Administered by BSPB on behalf of APHA
- PGRO runs a trial in each crop
- Involved in inspections and panels
- NL procedures similar to DL protocols

Screening Trials

- Usually two replicates
- Beans trialled alongside DL Beans
- Independent pea trial in Lincolnshire

Private Variety Trials

- Popular with many breeders
- Protocol adjusted to their requirements



Descriptive List



Descriptive List



Descriptive List

- Co-ordinated by PGRO
- Geographic Spread
- 5 Year Rolling Average
- Basket of Controls
- Used to be Recommended List
- High quality data



Pulse Descriptive Lists 2023 - Sites



6 winter bean locations
10 spring bean locations
7 pea locations



Traits measured



Early Season

- Plant Population
- Winter Hardiness

Pre-Harvest

- Haulm Length
- Disease Scoring
- Relative Maturity
- Brackling (Beans)

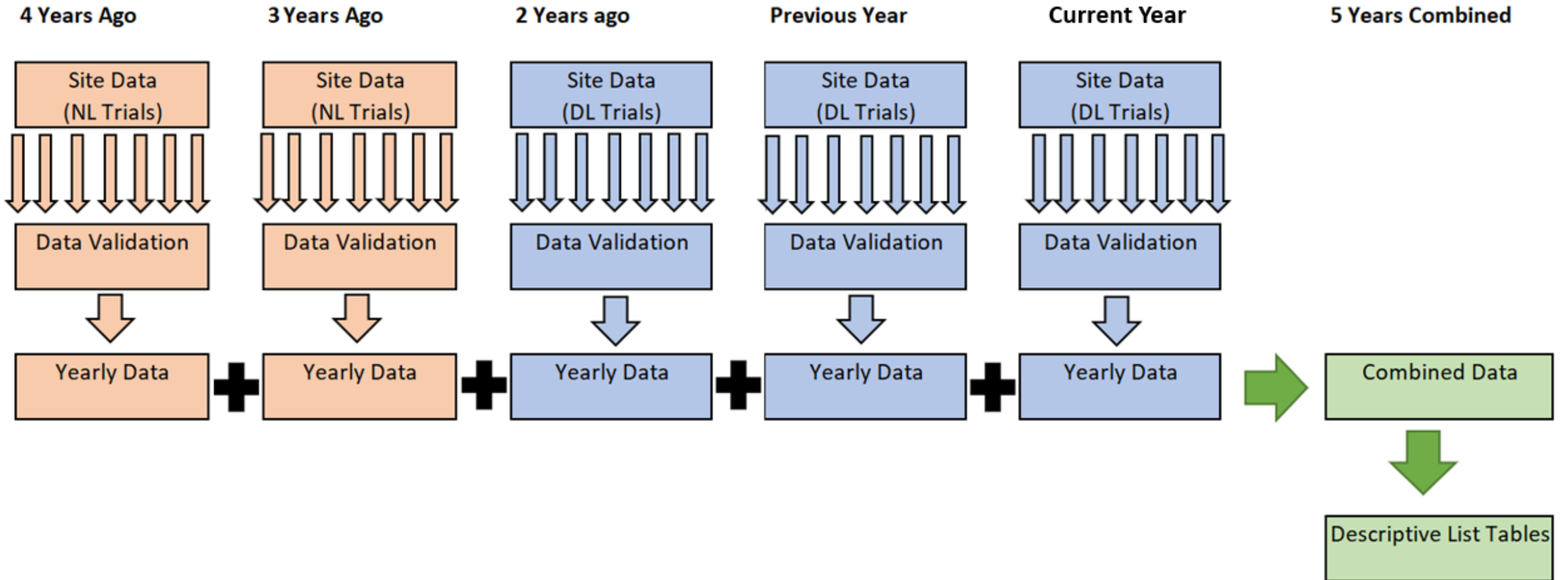
At Harvest

- Standing Ability
- Pre-harvest Shedding
- Combine Losses

Post-Harvest

- Fresh Yield
- Moisture Content
- TGW
- % Protein

Data for a new variety

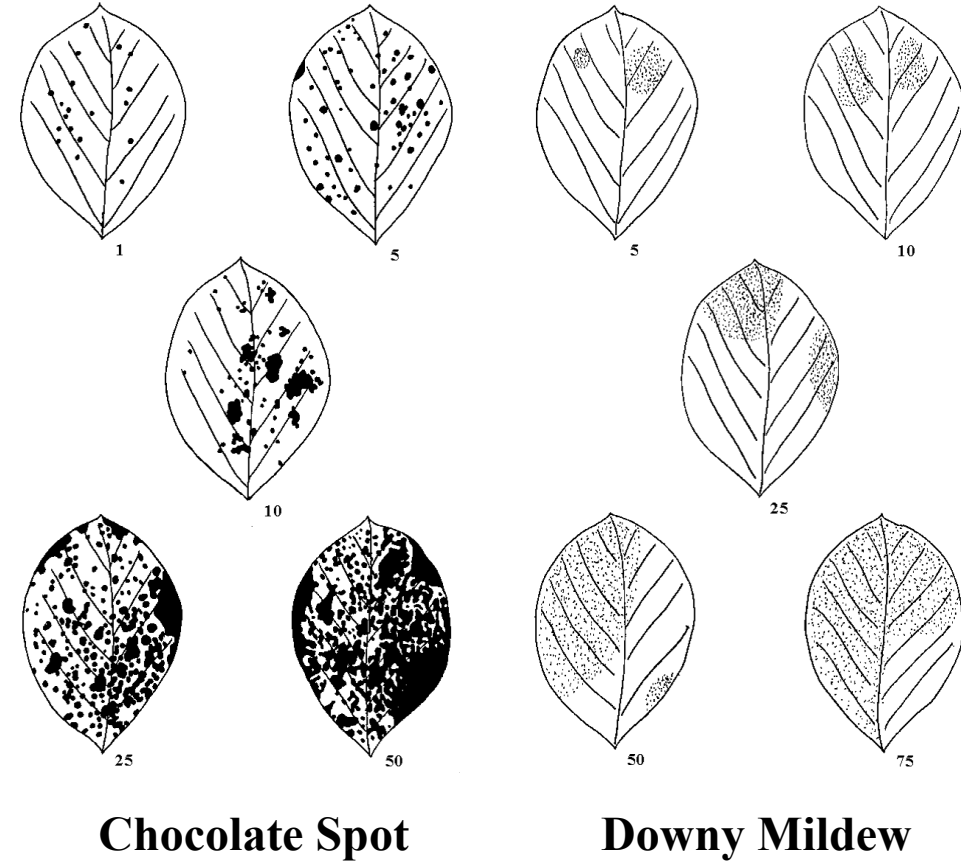


Disease Data

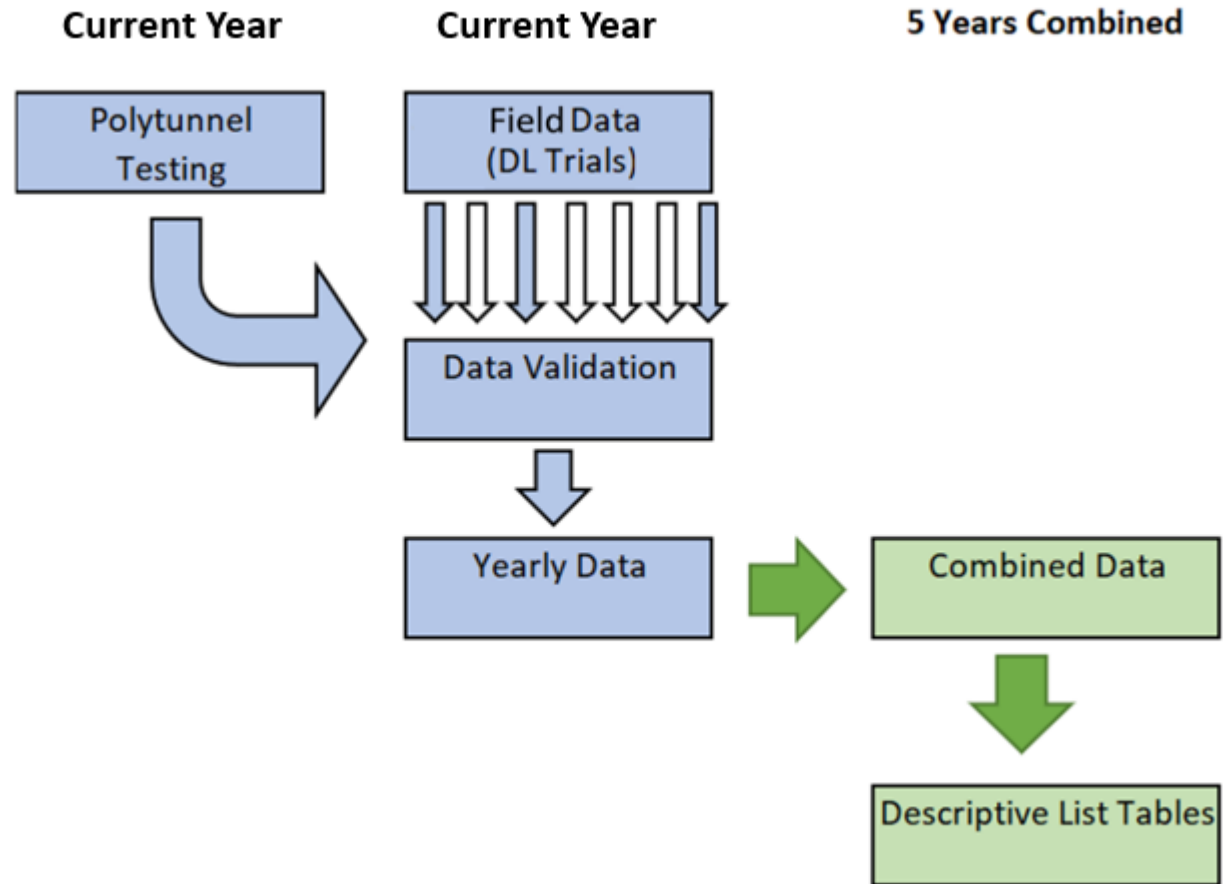


Field assessments

- Chocolate Spot (Beans)
 - Ascochyta (Beans)
 - Bean Rust (Beans)
 - Powdery Mildew (Peas)
 - Downy Mildew
 - Relevant Viruses
-
- Minimum of 5% infection to assess
 - Whole plot assessments
 - Managed Trials



Downy Mildew Data : Pea & Spring Bean



Disease Data



Winter Bean DM



Rust in 2020




Completed List



WINTER BEANS - PGRO Descriptive List 2023

The control for yield is the mean of 4 and 5 year varieties (4.50t/ha).
Yield differences of less than 8.0% are not statistically different.

	UK Agent (see appendix)	Yield as % control	Agronomic characters			Resistance to		Seed Characters		No. years in matrix	Year first listed	Type	Flower colour	Default sort
			Earliness of maturity(1-9)	Straw length (cm)	Standing ability at harvest(1-9)	Downy mildew (1-9)	Rust (1-9)	Thousand seed weight (g) 15%mc	Protein content (% dry)					
Vespa	Sen	111	5	115	8	5	5	667	25.7	5	18	Pale Hilum	C	1
Vincent	Sen	108	5	117	8	7	4	768	26.9	5	21	Pale Hilum	C	2
Bumble	Sen	104	5	121	8	5	5	665	25.3	5	16	Pale Hilum	C	3
Bonneville	Sen	102	6	115	8	5	4	692	26.5	3	23	Pale Hilum	C	4
Norton	Sen	102	7	112	8	6	5	659	25.8	5	21	Pale Hilum	C	5
Pantani	LSPB	96	8	90	8	5	5	610	23.3	4	22	Pale Hilum	C	6
Honey	Sen	94	7	105	9	5	4	673	25.9	5	12	Pale Hilum	C	7
Tundra	LUK	94	6	105	8	5	5	607	25.7	5	14	Pale Hilum	C	8

(1-9) A high rating indicates that the variety shows the character to a high degree.

The scales of characters of winter beans do not necessarily correspond with those for spring beans.

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Reading the Lists



WINTER BEANS - PGRO Descriptive List 2023

Individual years

Variety	Winter Beans 2018-2022: Summary of five year adjusted means (NL and DL trials)												
	Years in Matrix	No. of trials per year						Yield as % mean of 4 & 5 year varieties					
		2018	2019	2020	2021	2022	Total	2018	2019	2020	2021	2022	5 year mean
Vespa	5	5	5	4	4	4	22	108	109	115	115	109	111
Vincent	5	4	3	4	4	4	19	105	108	114	105	109	108
Bumble	5	5	5	4	4	4	22	100	99	114	107	102	104
Bonneville	3	*	*	3	5	4	12	*	*	108	103	95	102
Norton	5	4	3	4	4	4	19	106	106	106	92	100	102
Pantani	4	*	3	3	4	4	14	*	103	81	91	100	96
Honey	5	5	5	4	4	4	22	95	90	95	100	89	94
Tundra	5	6	5	5	5	4	25	95	92	83	101	92	94
Maximum no. of trials								6	5	5	5	4	25
Least Sig. Diff (variety means)(p=0.05)													
Smallest								5.7	8.3	10.0	9.1	7.2	6.0
Largest								7.0	10.8	13.0	10.2	7.2	8.0
Average								6.5	9.6	12.0	9.8	7.2	6.9
Mean of controls in t/ha								4.38	5.5	2.77	5.18	4.78	4.50

Disease Ratings



Winter Beans		Spring Beans		Combining Peas	
Downy Mildew	Rust	Downy Mildew	Rust	Downy Mildew	Powdery Mildew
Vincent (7)	(All 4/5)	Yukon (9)	LG Viper (7)	Rose (9)	LG Ajax [HR]
Norton (6)		Lynx (7)	Macho (6)	Mantara (8)	LG Aviator [HR]
		Maris Bead (7)		Rivoli (8)	Greenwood [HR]
				Carrington (8)	Manager [MR]
				Bluetime (8)	
				LG Aviator (8)	

Access to Information

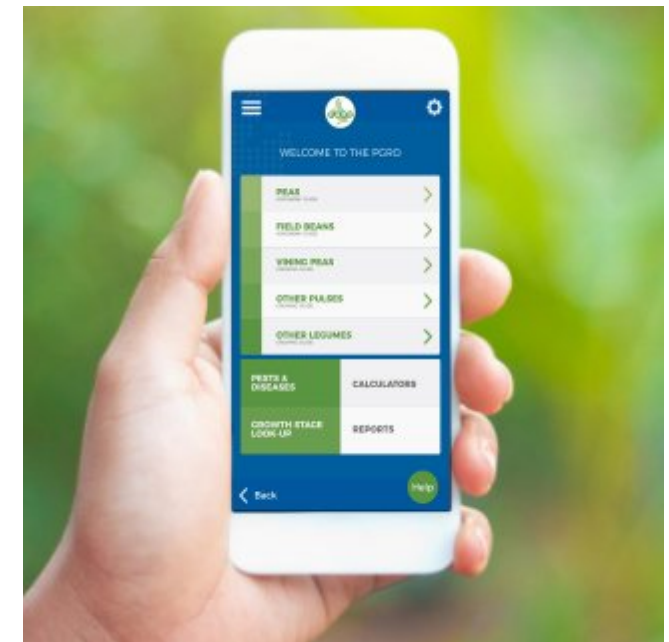


Descriptive List

- Available to download from PGRO Website
- Printed in Winter Issue of Pulse magazine
- PGRO App

The screenshot shows the PGRO website homepage. At the top, there is a navigation bar with the PGRO logo, the text 'Processors and Growers Research Organisation', and links for 'Sign In' and 'Register'. Below the navigation bar, there are tabs for 'News & Events', 'Services', 'Publications', 'Advice', and 'Research'. The main content area is divided into several sections: 'Welcome' with a brief introduction, 'PGRO Latest News' with a 'Press Release' and 'Crop Update', 'Pulse Market Updates', and a 'Publications' sidebar with links to 'PULSE DESCRIPTIVE LIST', 'COMBINING PEAS AGRONOMY TIMELINE', 'WINNING PEA DESCRIPTIVE LIST', 'RESEARCH PUBLICATIONS', 'PEA & BEAN CROP WATCHERS GUIDE', 'VEG MAGAZINE 21/22', and 'PULSE MAGAZINE SUMMER 2022'. There is also a 'Videos' section and a 'Latest Tweets' section. At the bottom, there are icons for 'FIELD BEANS', 'ORGANIC PULSES', 'OTHER PULSE CROPS', and 'WINNING PEAS & VEGETABLE LEGUMES'.

The cover of Pulse Magazine Winter 2022 features the title 'THE PULSE MAGAZINE' and the PGRO logo. The main headline is 'DAYTONA blue pea' with a large graphic of a number '1' made of white peas. Below this, it says 'Accepted by end users as the NO.1 VARIETY FOR COLOUR RETENTION'. A list of benefits includes: 'High yields', 'Early to mature', 'High standing ability', 'Good disease resistance', and 'Outstanding quality'. A quote from Rebecca Gibson, Agri Pulse Product Manager, states: 'With rotations under pressure and growers looking to capture market value, Agri offers a range of pulses options to help diversify your farm.' At the bottom, there is contact information for the Agri Seed Desk and the Agri logo.



Q&A

