NSW GOVERNMENT | Department of Primary Industries

DeSireBull™ – a bull selection decision support tool powered by BREEDPLAN

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OVERVIEW

What's the problem?

- Complexity of genetic information
- Suboptimal selection decisions

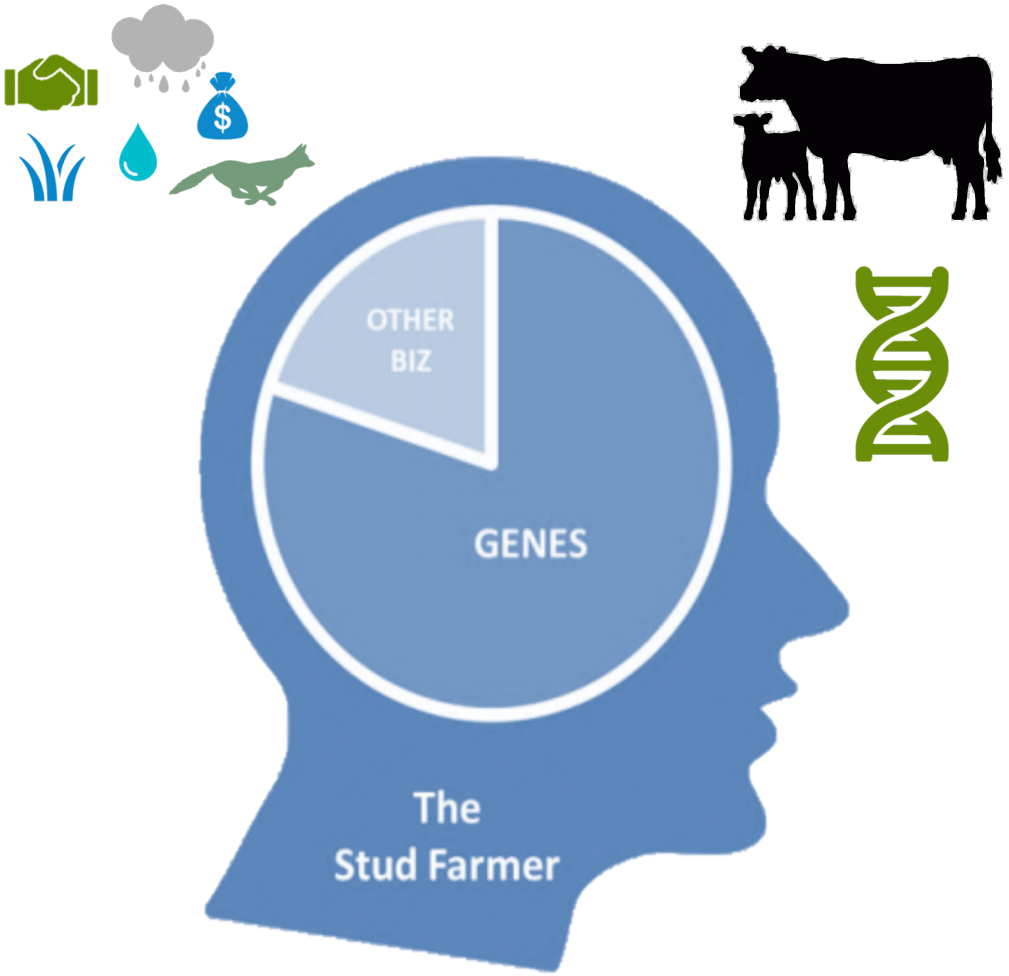
How do we fix it?

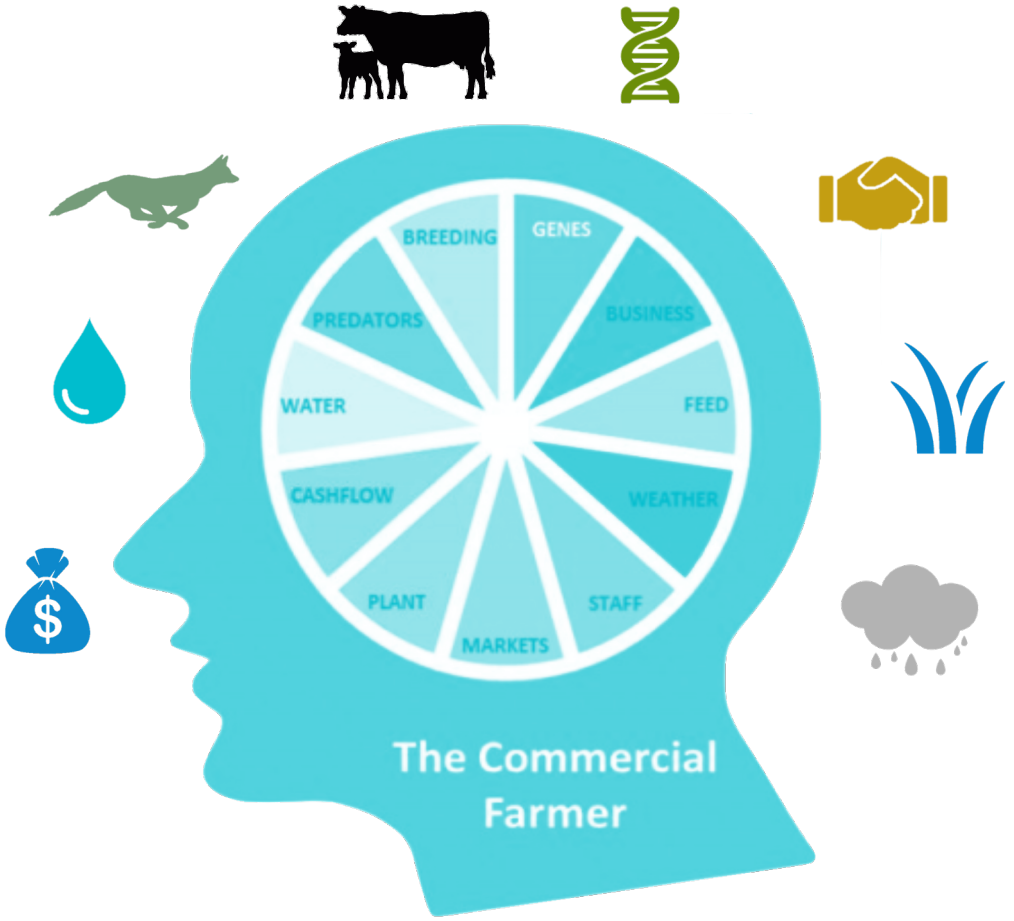
- Alternatives to aid selection decisions

What does it mean?

- Provide some flexibility without completely compromising genetic gain

The main focus



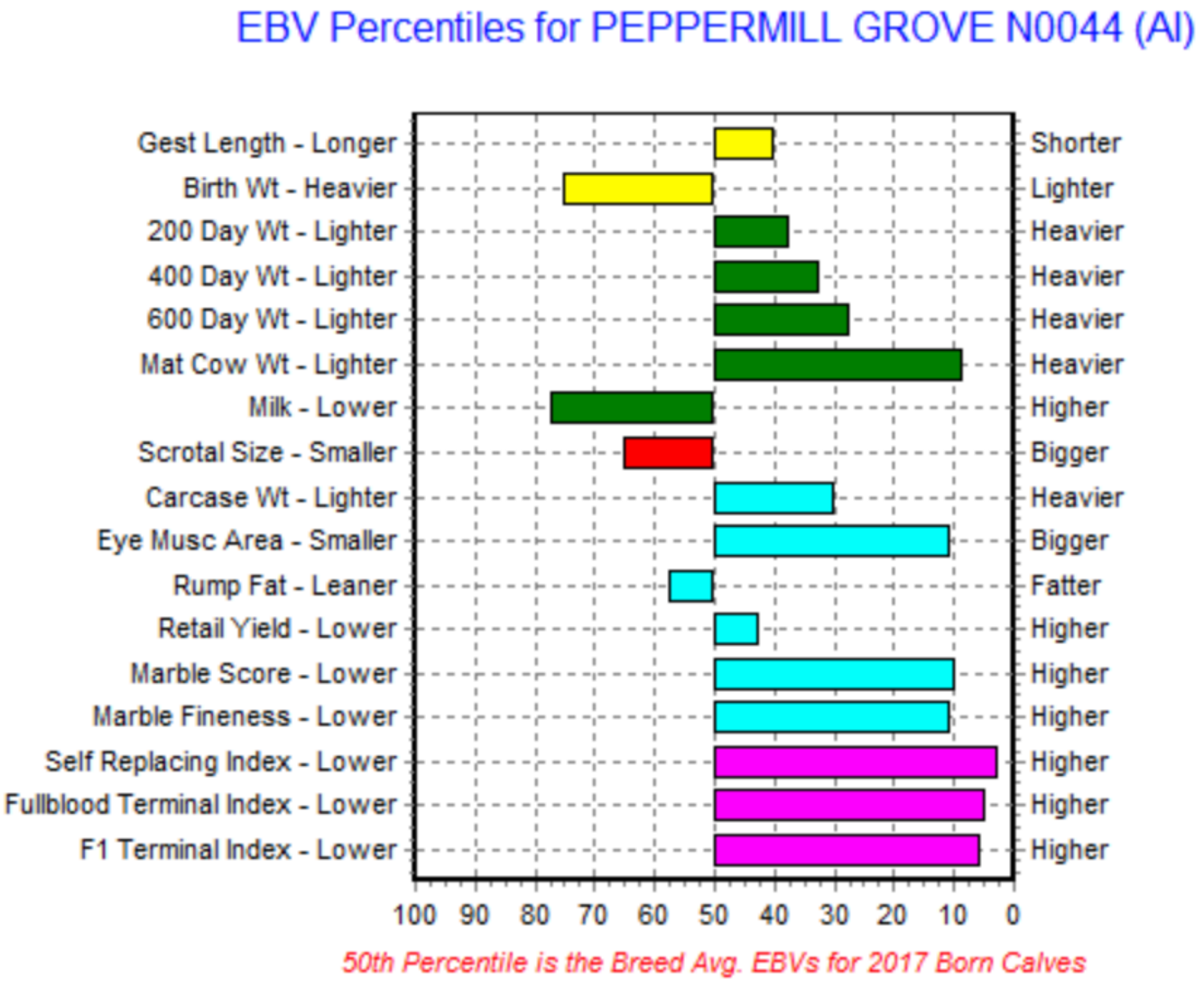


Ipsos, 2016

Complexity of genetic information

Estimated breeding values (EBVS)
Accuracies
Selection Indexes
Percentile values

Complex information



http://abri.une.edu.au/online/

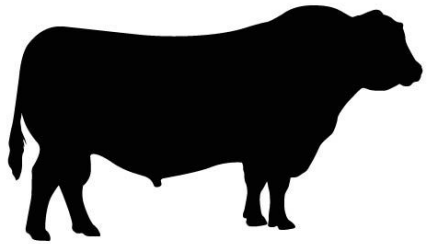
I want to increase carcase weight.

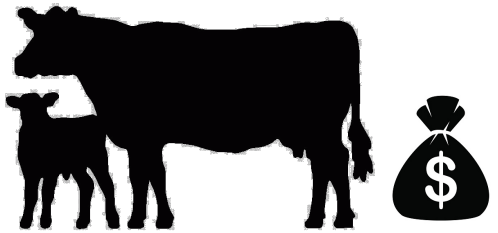
$Index?

What about other traits I desire?

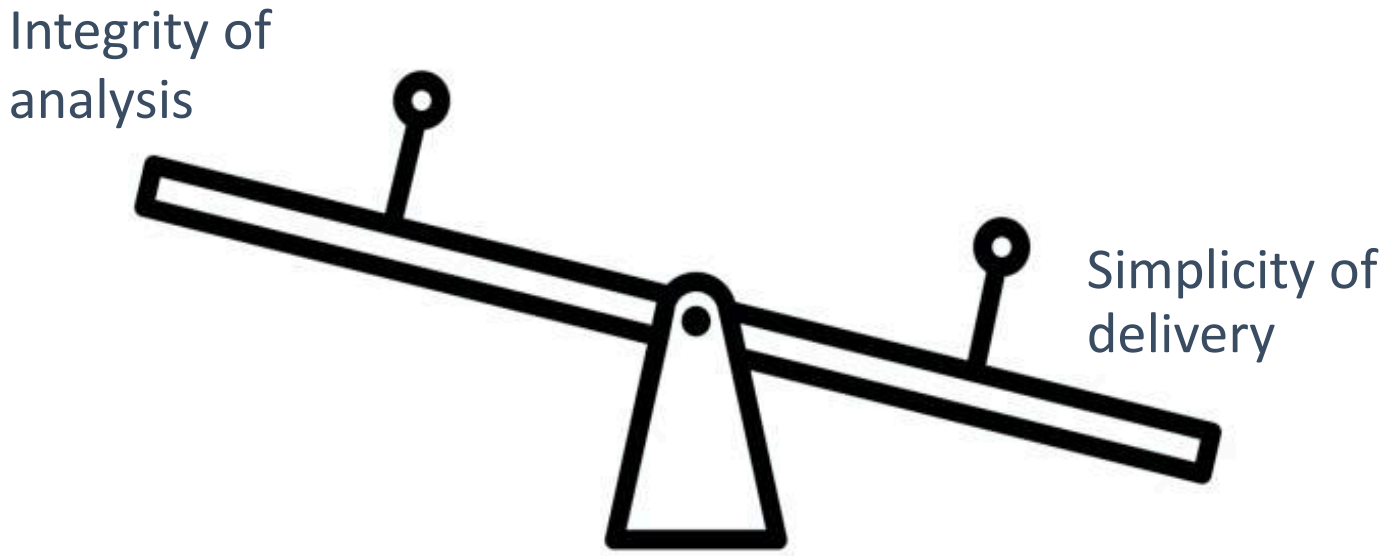
The result

- Sub-optimal selection decisions
- Decreased rate of genetic gain
- Decreased productivity and profitability





The solution



Finding a balance

Index subgroups

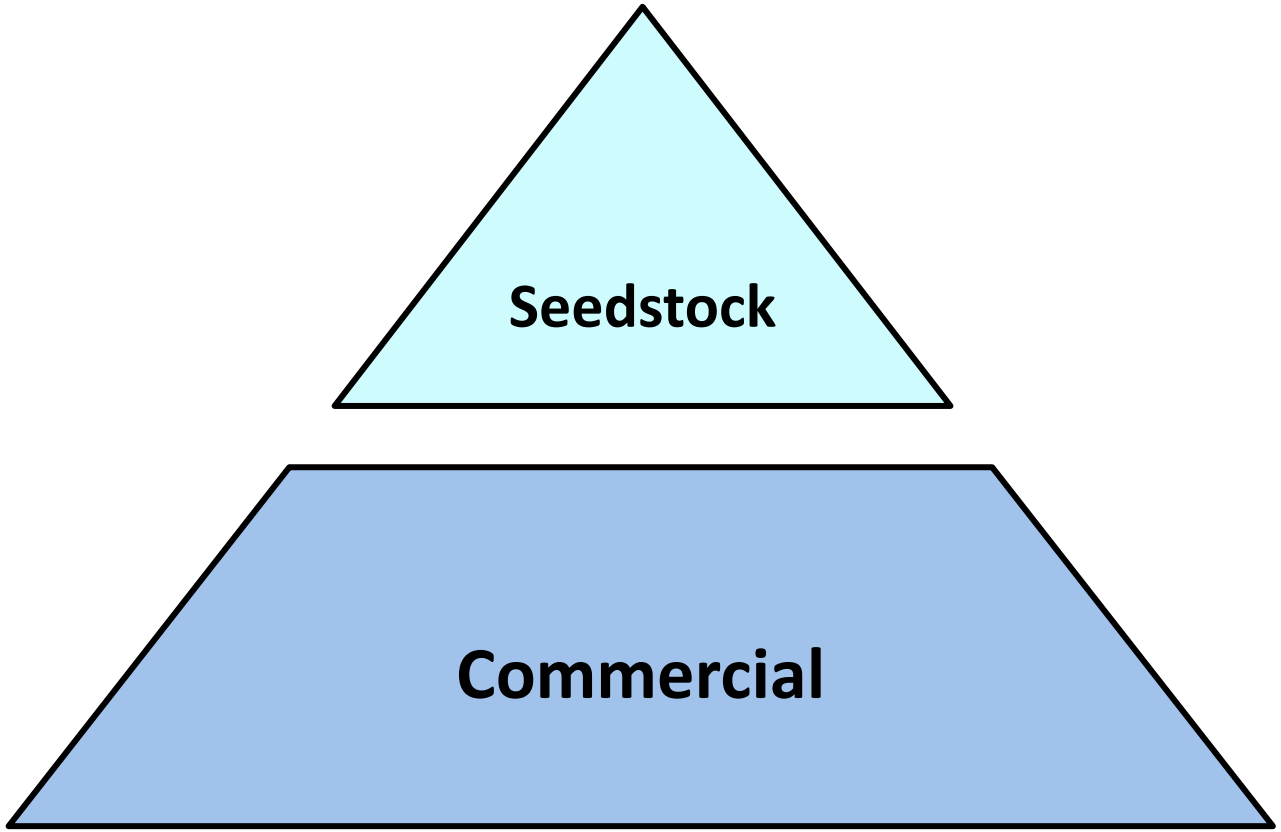
TRAIT CLASSIFICATION

Group	Trait
Birth & calving	Birth weight, Calving ease (dir & mat)
Carcase	Dressing %, Meat %, Rump fat, IMF
Efficiency	MCW, RFI
Fertility	SS, Days to calving
Growth	200 (dir & mat)/ 400/600 day weight

PRODUCTION SYSTEM CLASSIFICATION

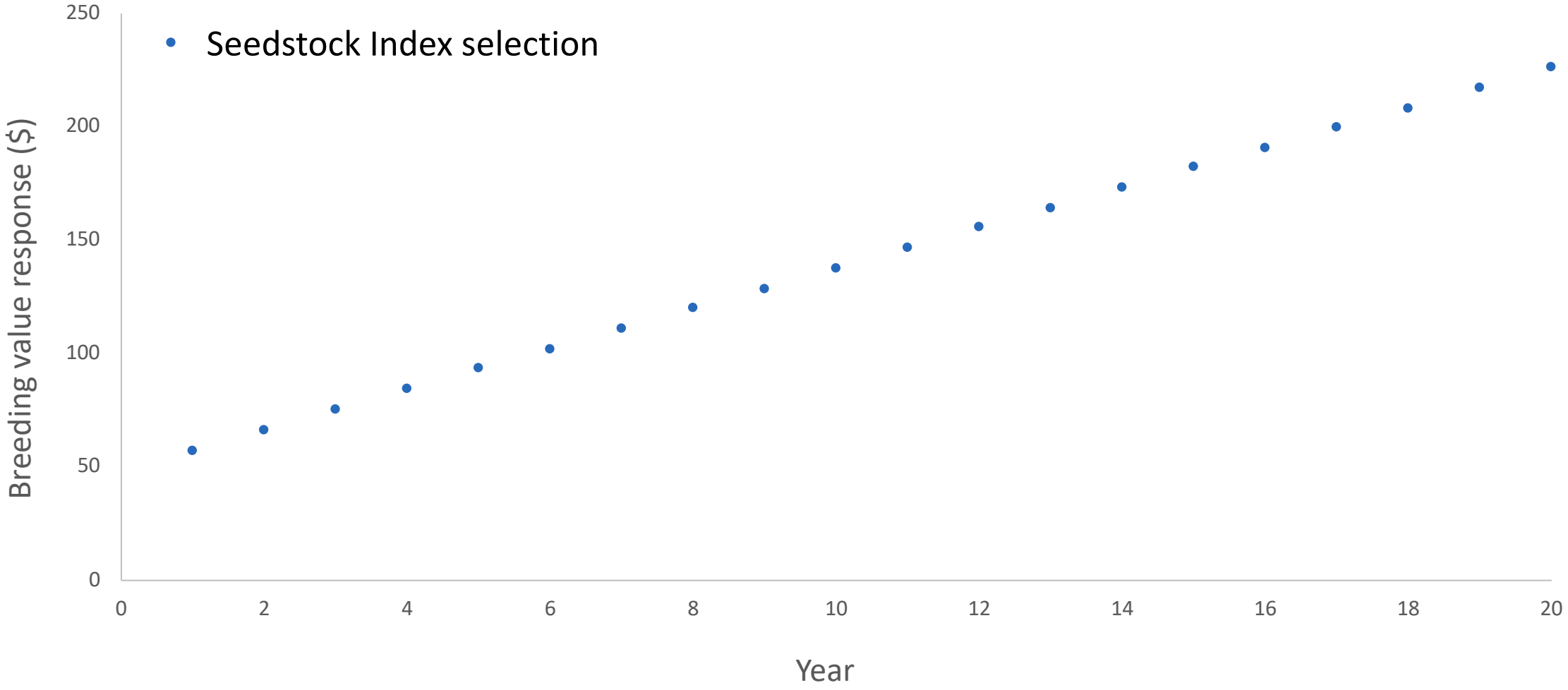
Group	Trait
On-farm	Birth weight, Calving ease (dir & mat), 200 (dir & mat)/400 day weight, SS, Days to calving, MCW, RFI-p
Off-farm	Dressing %, Meat %, Rump fat, IMF, RFI-f, 600 day weight

Scenario testing

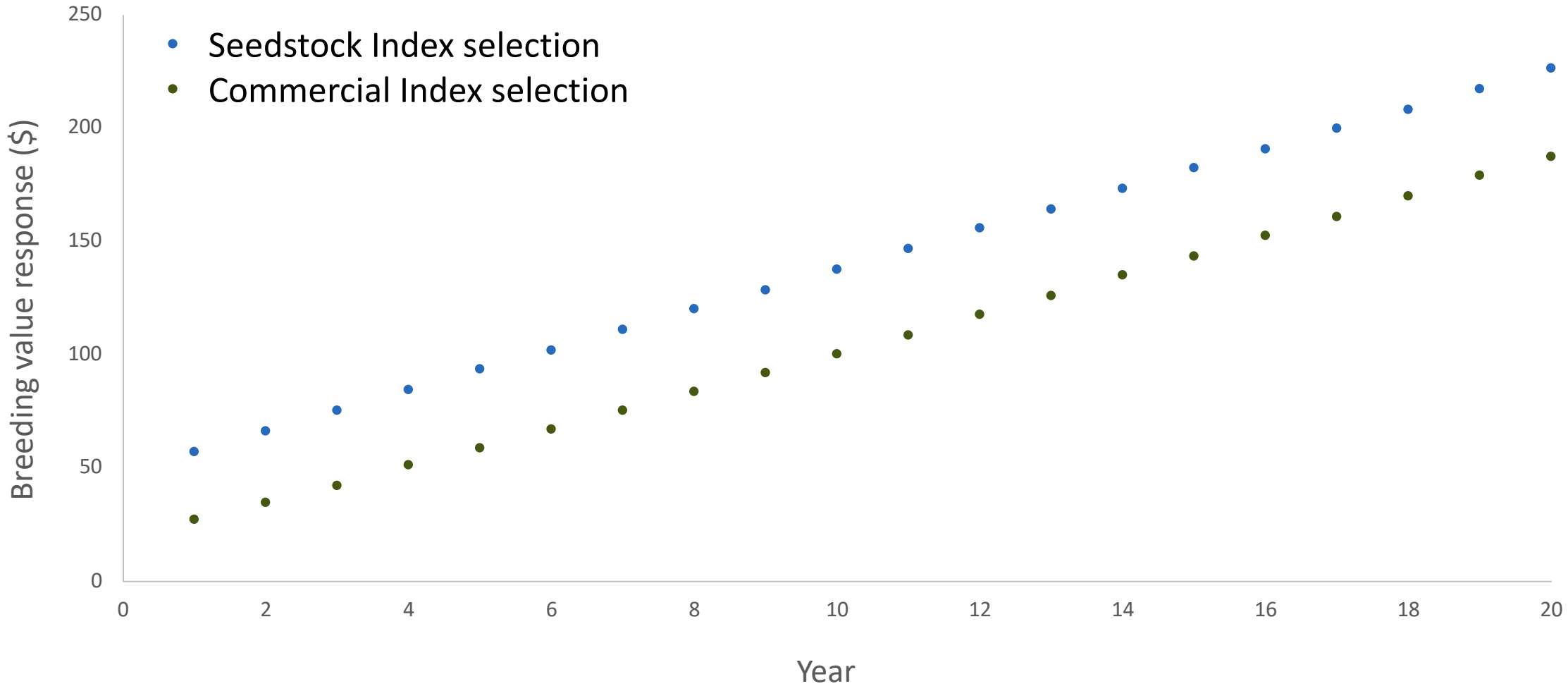


Scenario 1	Scenario 2	Scenario 3
Index	Index	Sub-Group
Index	Sub-Group	Sub-Group
I & I	I & S	S & S

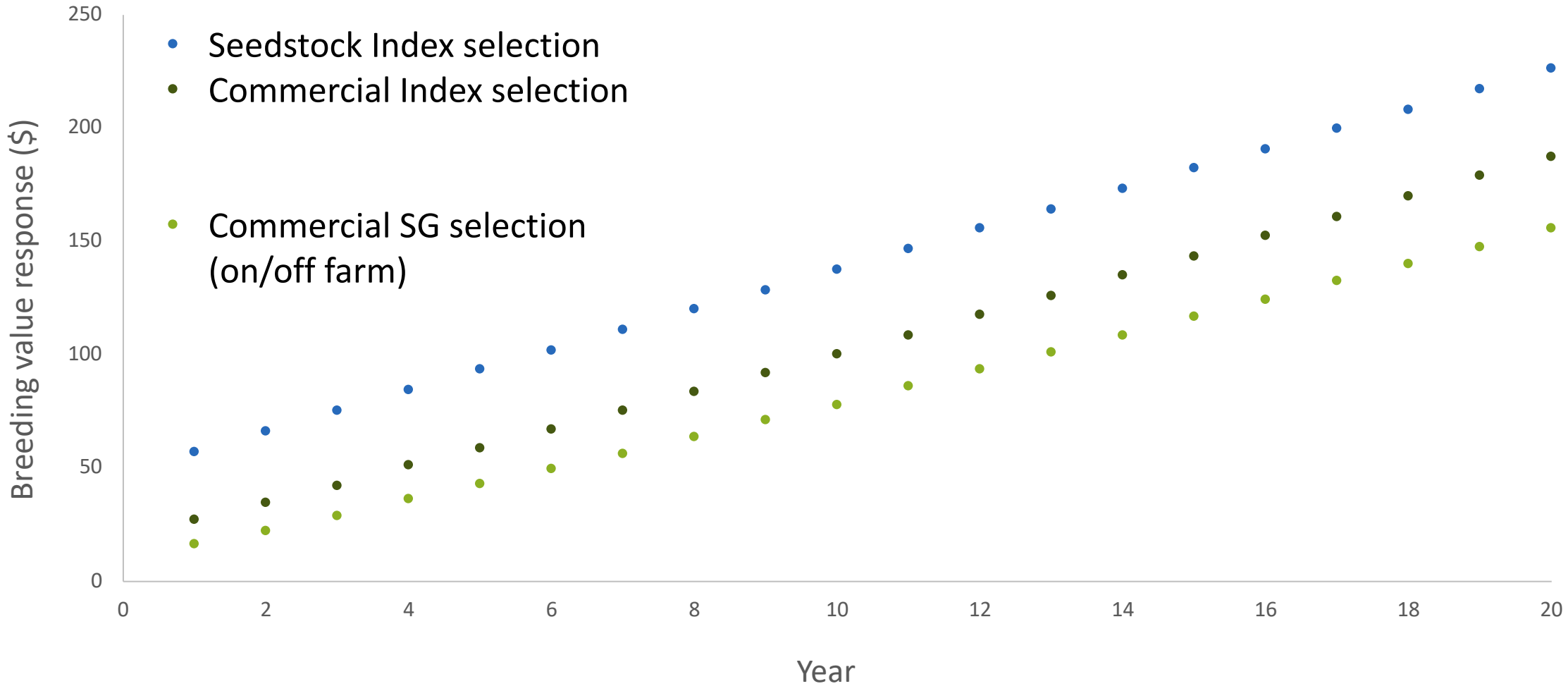
Response per year



Response per year



Response per year



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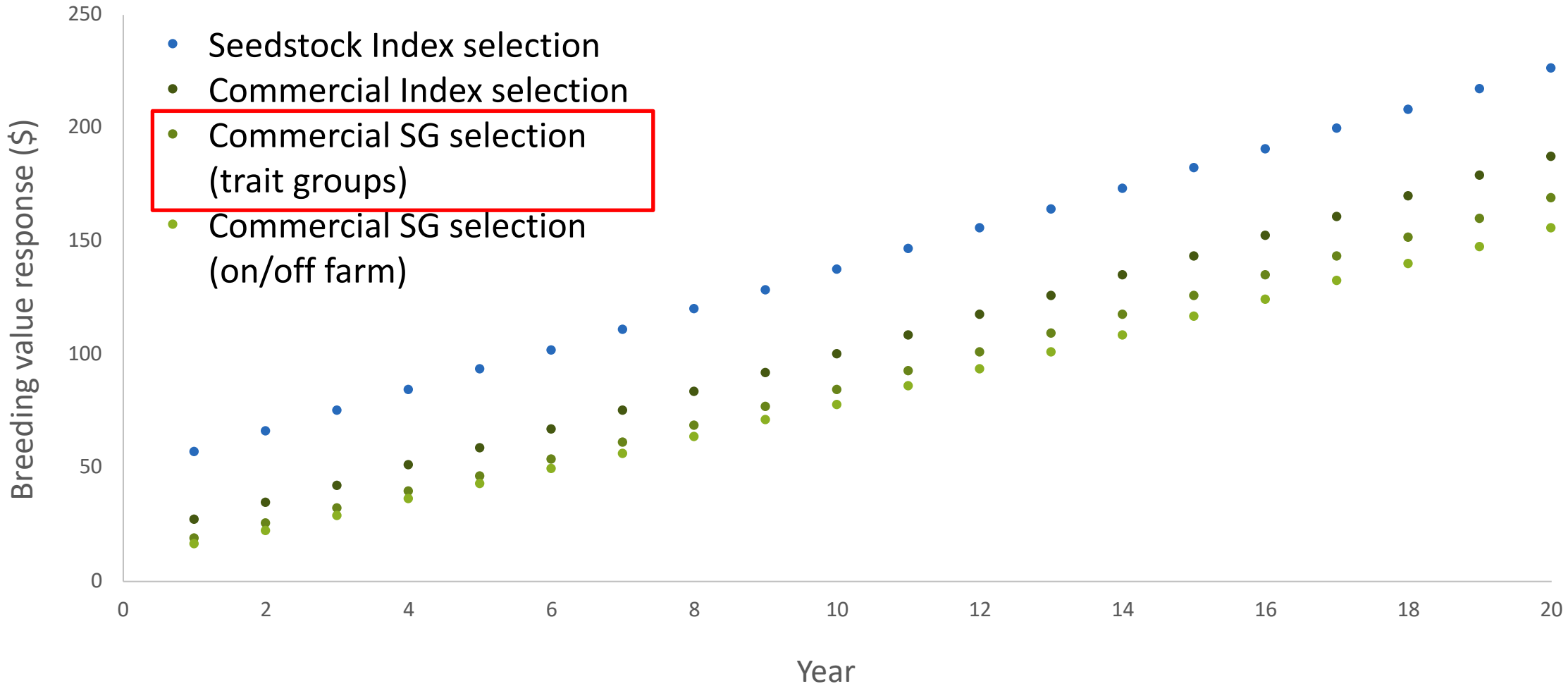
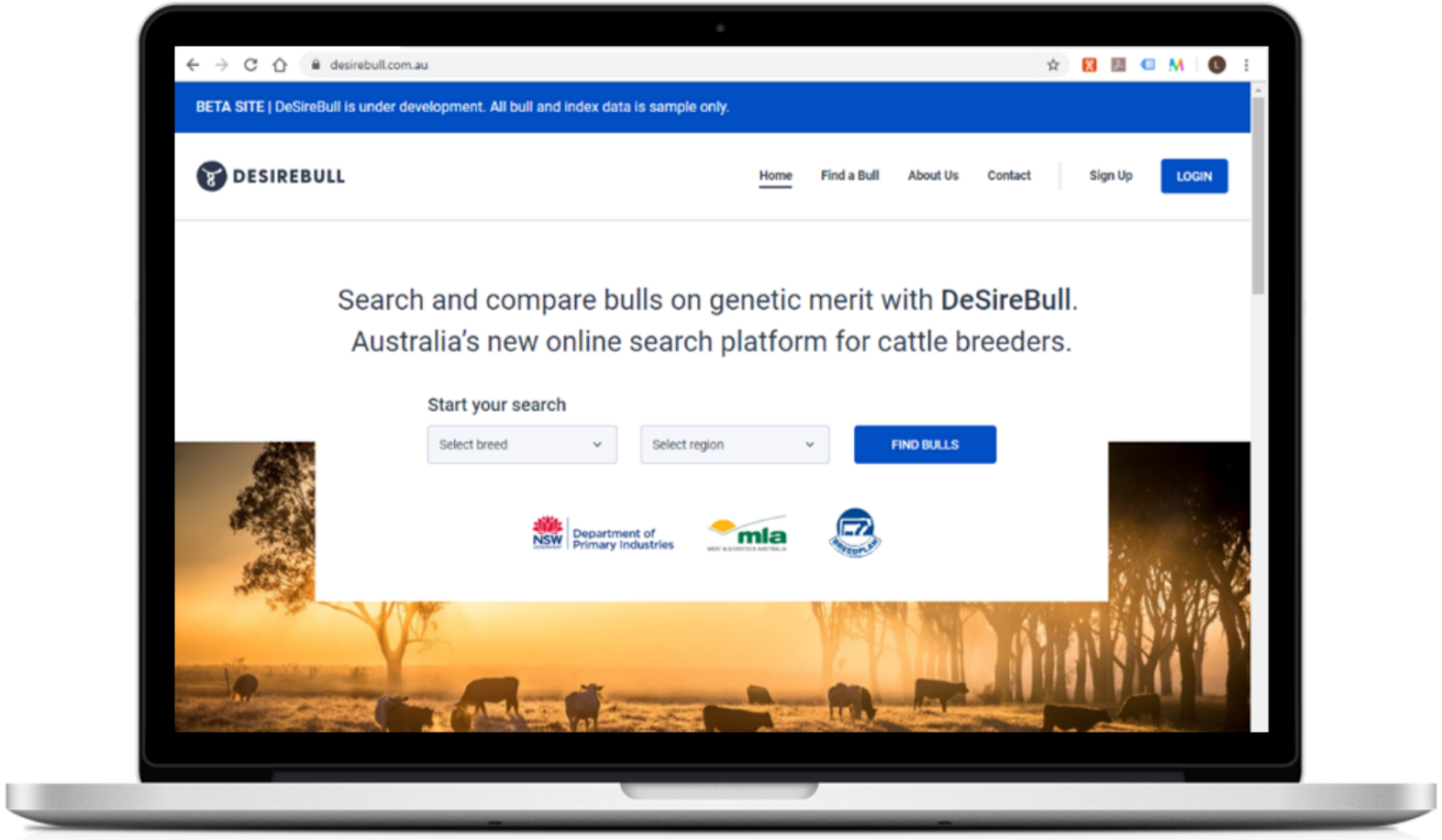


DeSireBull™


desirebull.com.au
BETA SITE | DeSireBull is under development. All bull and index data is sample only.
DESIREBULL
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About Us
Contact
Sign Up
LOGIN
Search and compare bulls on genetic merit with DeSireBull.
Australia's new online search platform for cattle breeders.
Start your search
Select breed
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NSW Department of Primary Industries
mla

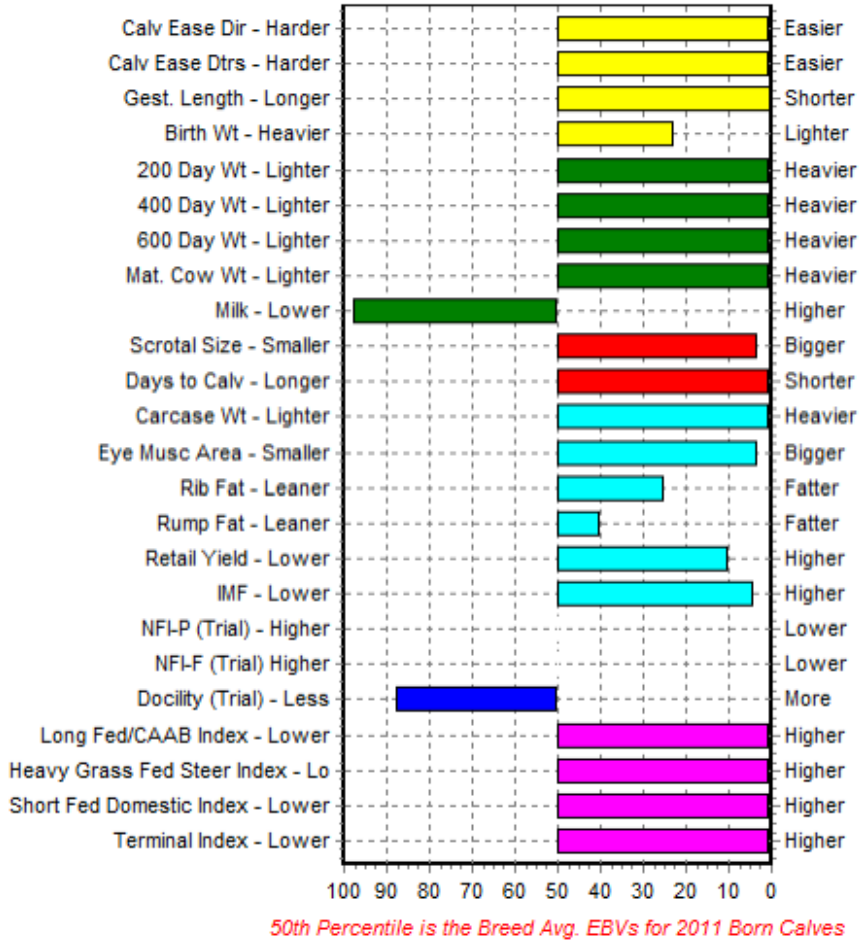
What we know will work..

Subgroup trait classification

Index Subgroup	BREEDPLAN trait (EBV)
Birth & calving	Birth weight, Calving ease direct, Calving ease maternal
Carcase	Dressing %, Meat %, Rump fat, Intra-muscular fat
Growth	200DW Direct, 200DW maternal, 400DW, 600DW
Efficiency	Mature cow weight, Residual feed intake
Fertility	Scrotal size, Days to calving

What works for producers?

Visual elements



Australian Business Research Institute (ABRI), 2019

Replacement Index Breed Percentiles (Sept 2019)

ICBF.com	20% ★★	40% ★★★	60% ★★★★	80% ★★★★★
All Breeds (Across Breed)	€49	€68	**€85**	€104
Angus	€70	€86	**€99**	€115
Aubrac	€118	€134	**€148**	€163
Blonde d'Aquitaine	€38	€54	**€66**	€80
Belgian Blue	-€11	€18	**€38**	€59
Charolais	€22	€43	**€61**	€80
Dexter	€45	€58	**€68**	€80
Hereford	€34	€50	**€65**	€82
Irish Maol	€23	€39	**€50**	€62
Kerry	€40	€51	**€60**	€68
Limousin	€62	€80	**€95**	€113
Other Minor Breeds	€41	€58	**€76**	€98
Piedmontese	€84	€102	**€117**	€133
Parthenaise	€88	€106	**€120**	€135
Salers	€128	€144	**€158**	€178
Shorthorn	€96	€108	**€119**	€131
Simmental	€93	€111	**€127**	€145
	★★ 20%	★★★ 40%	★★★★ 60%	★★★★★ 80%

Irish Cattle Breeding Federation, 2019

Department of Primary Industries

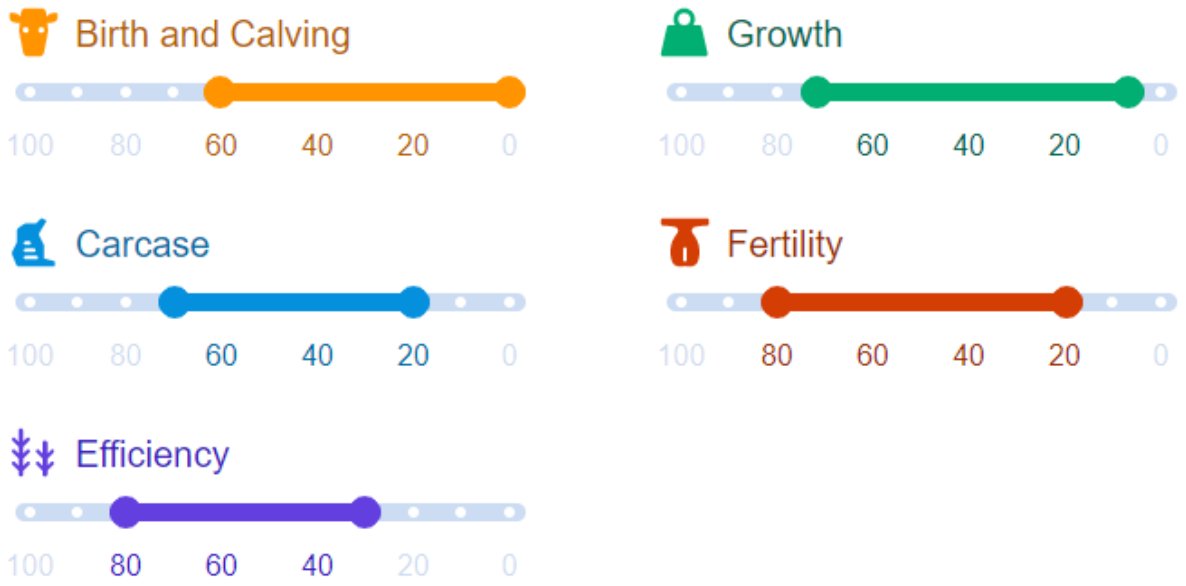
MEAT & LIVESTOCK AUSTRALIA DONOR COMPANY

The DeSireBull difference

Dynamically refine your search with our purpose built EBV Subgroups

We simplify complex genetic data to show you where the value counts

We summarise index components into a single star rating, so you can easily see how bulls stack up



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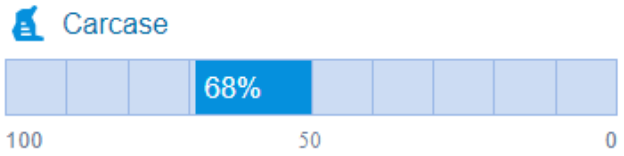

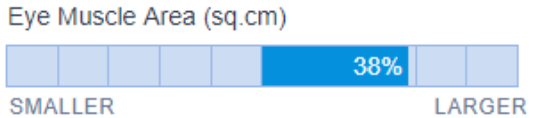

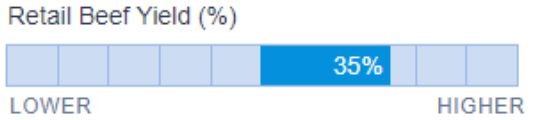

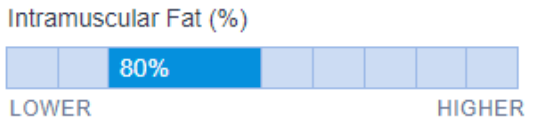

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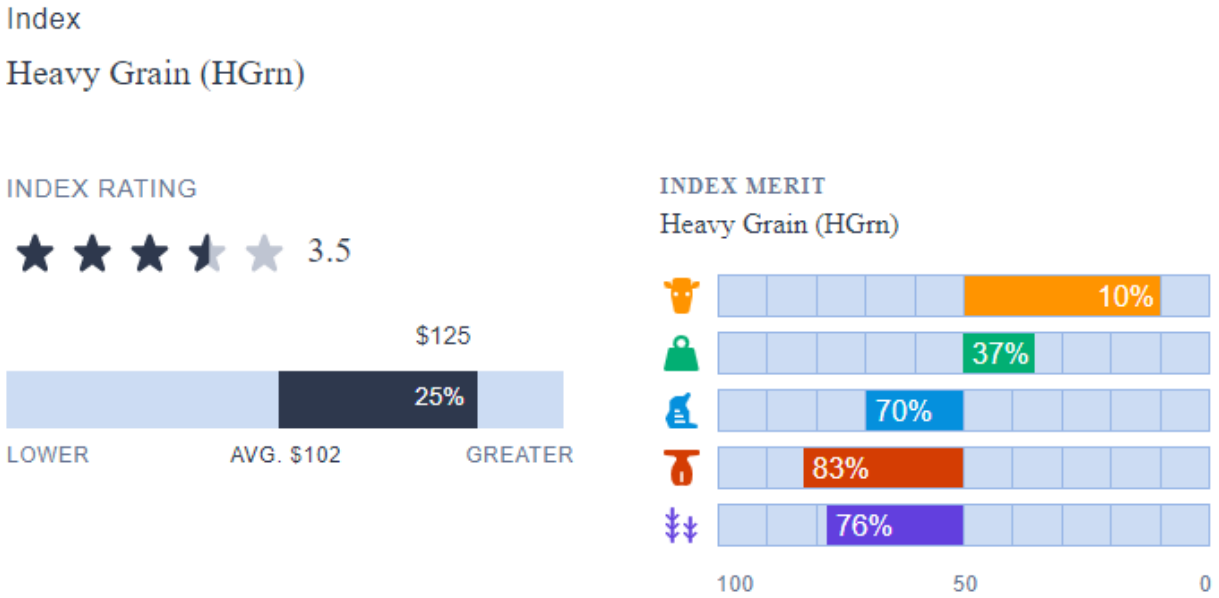

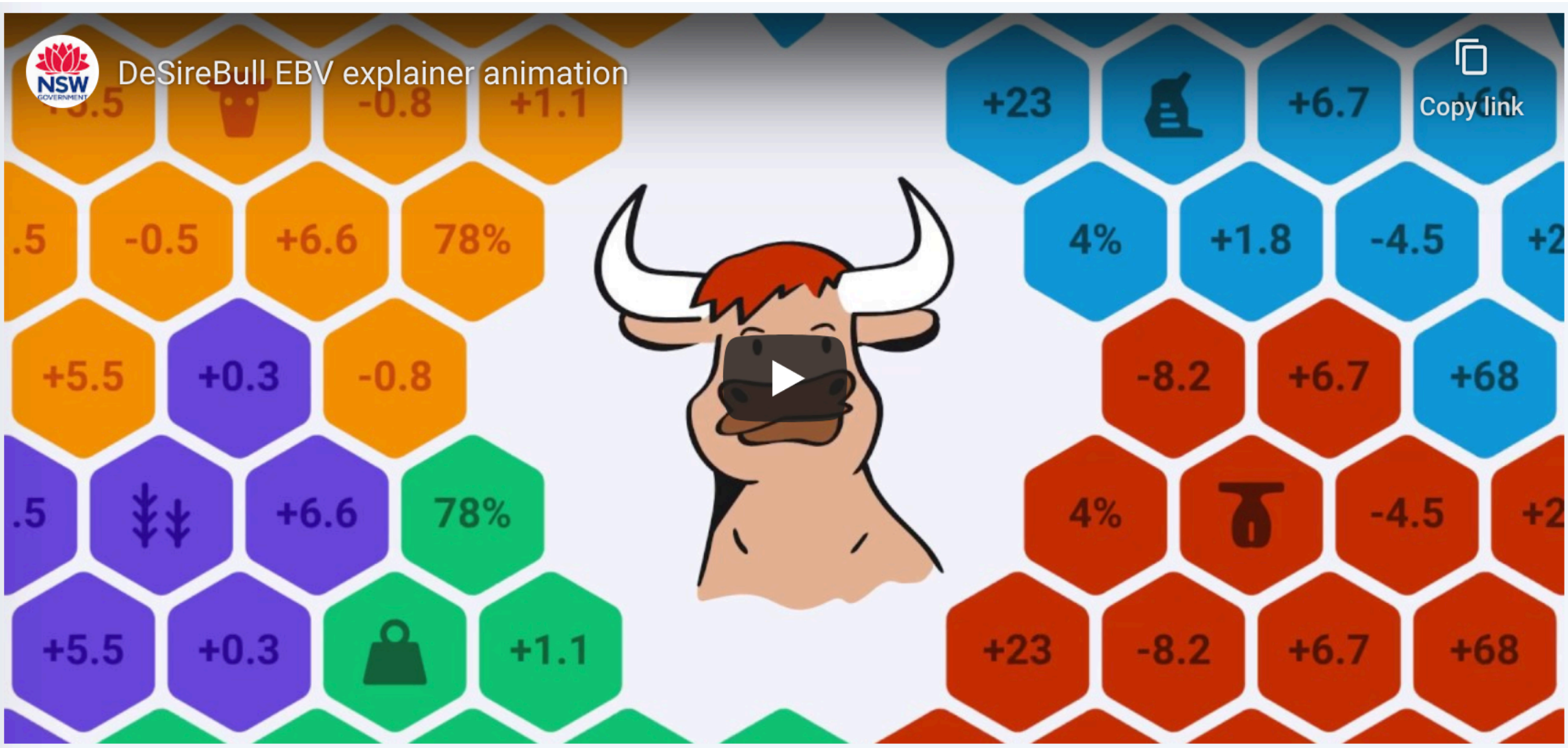
DeSireBull EBV explainer animation
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+6.6
78%
4%
-4.5
+5.5
+0.3
+1.1
+23
-8.2
+6.7
+68

Additional search criteria

SEARCH BY

- Location
- Catalogue

CATALOGUE

Penrose Wagyu Autumn 20 ×

AGE

- Yearlings
- 2+

GENETIC CONDITIONS

- Free of all

HORN STATUS

- Horned
- Dehorned
- Polled
- Scurred

SET EBV THRESHOLD

	MIN	MAX
Select EBV	-0.0	0.0

SEARCH BY ANIMAL ID

ENTER ID

Enter ID

SEARCH

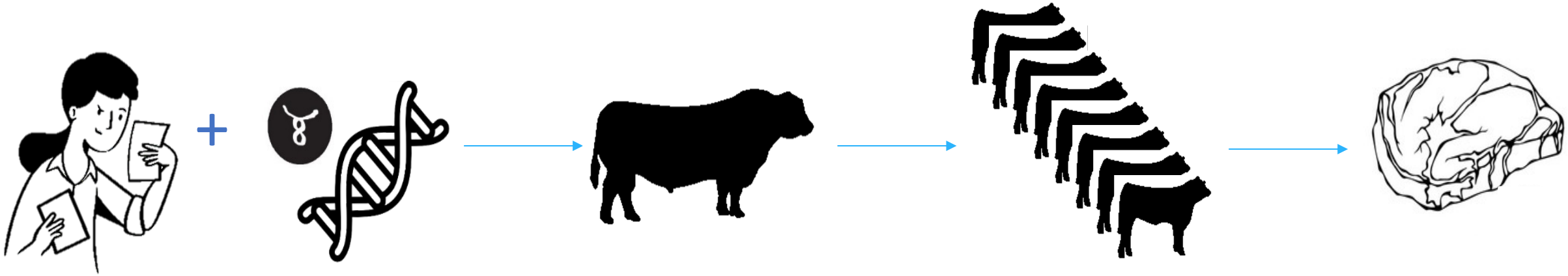
Project aim

A decision support tool that will:

- Simplify the bull selection process
- Match available bulls
- Compare and benchmark
- Provide feedback

Industry outcomes

- Increase demand for and adoption of genetic evaluation (BREEDPLAN)
- Increase productivity and profitability of Australian beef



Summary

Subgroup selection:

- Nucleus drives response
- $Index selection enables optimal genetic gain
- Commercial subgroup selection allows some flexibility
- Genetic gain not completely compromised

DeSireBull™

- Simplify selection decisions
- Allow producers some flexibility in decision process
- Improve rates of genetic gain, productivity and profitability

Questions