

Australian Dairy Herd Improvement Scheme

The story of Australia's new breeding indices

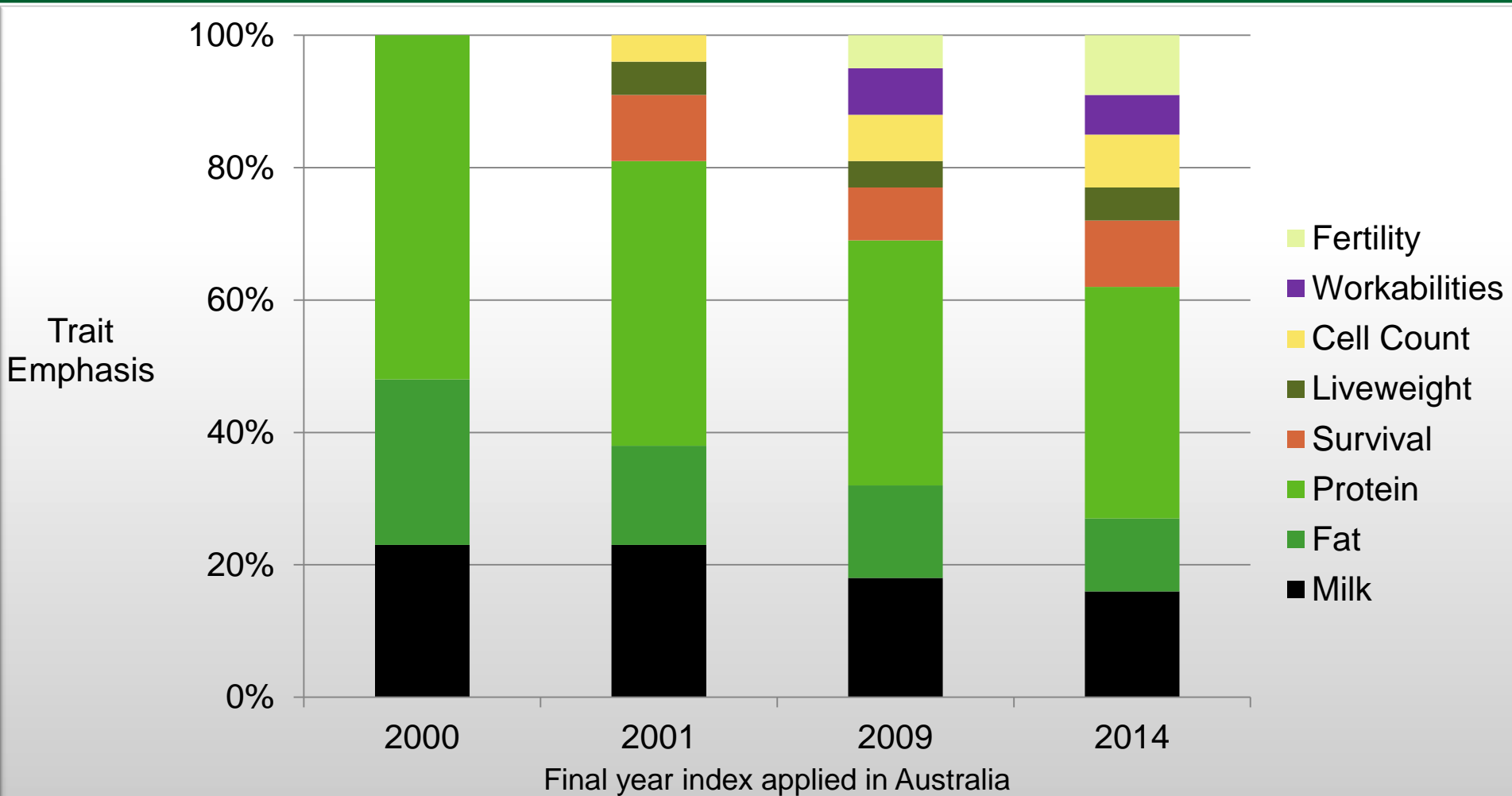
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Abacus Bio*



Australian
Dairy Herd
Improvement
Scheme



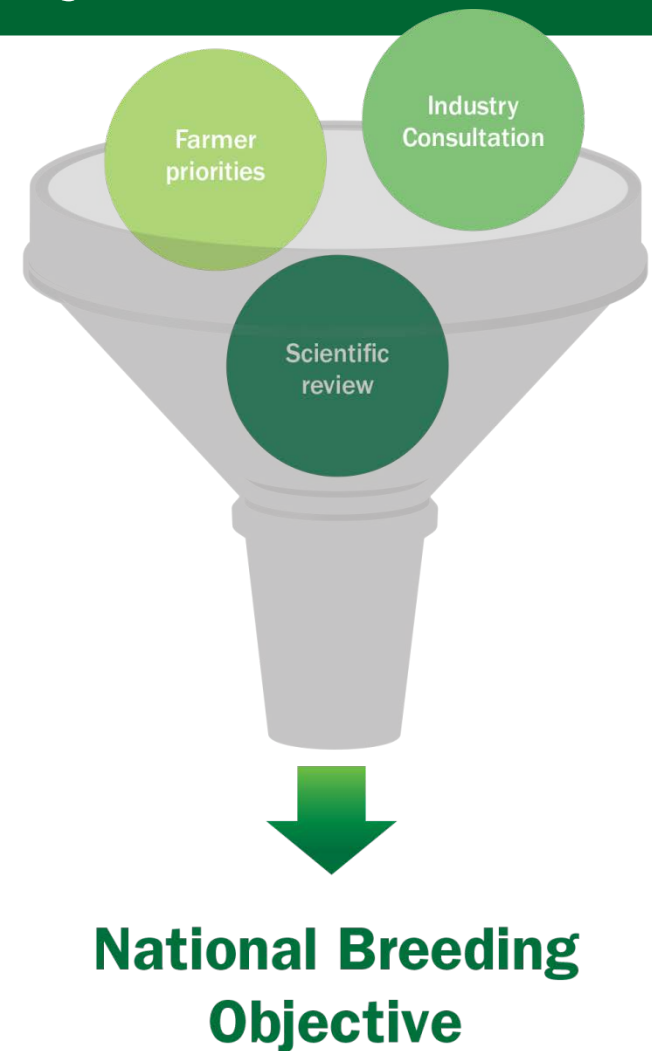
Indices evolve over time



Current National Breeding Objective = Profit

The NBO review aims to

- 1) Is Profit still the focus
- 2) Produce an index (indices) that are based on sound scientific principles and is in line with overall objective and farmer preferences.



Farmer Input into NBO review



National Breeding Objective Survey



1000 Minds™

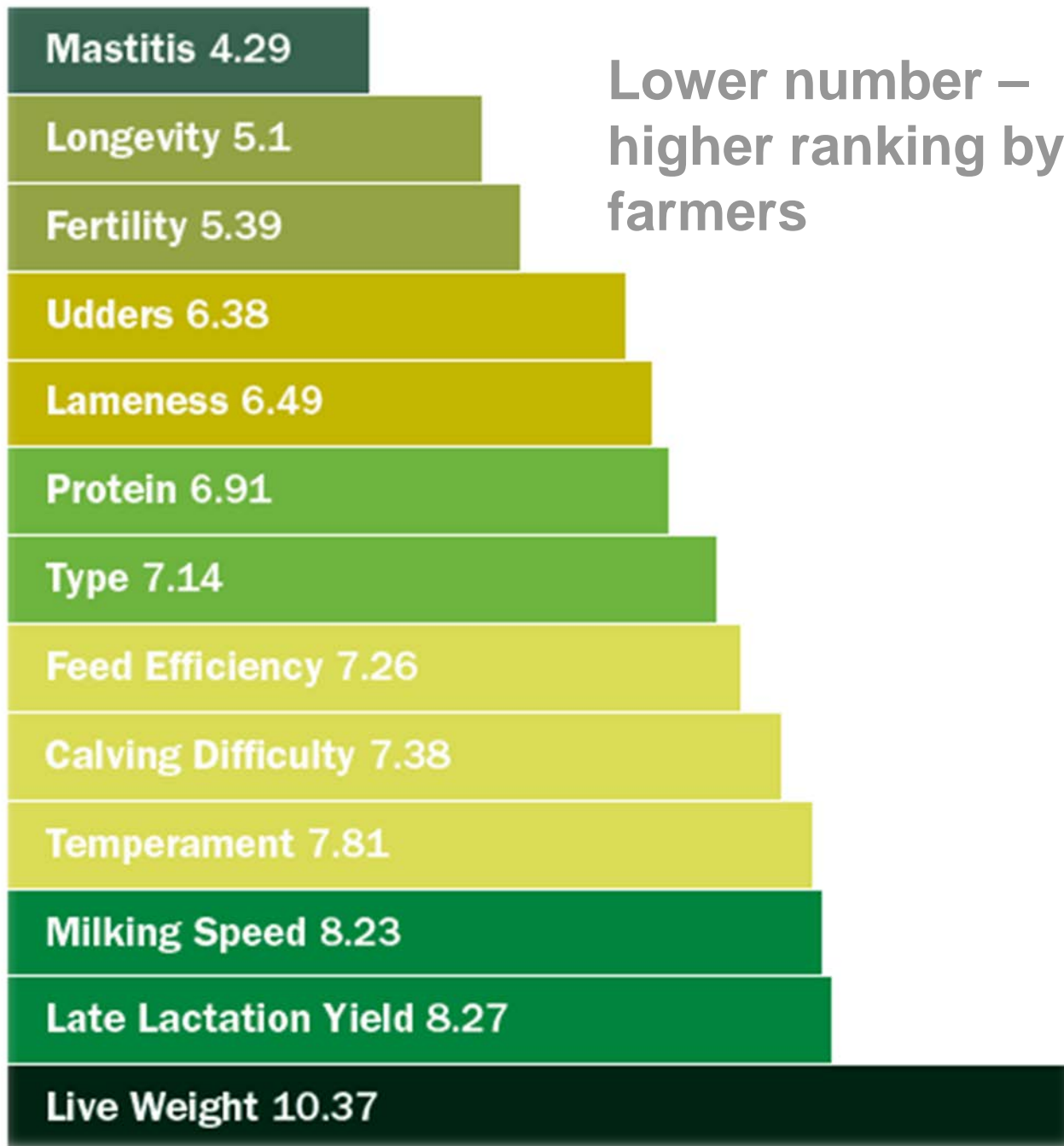
- Farmwalk event
- 26 events on 46 farms throughout Australia
- >600 participants

- >600 farmer and service provider responses collected through;
 - Random phone calls
 - Volunteer participation





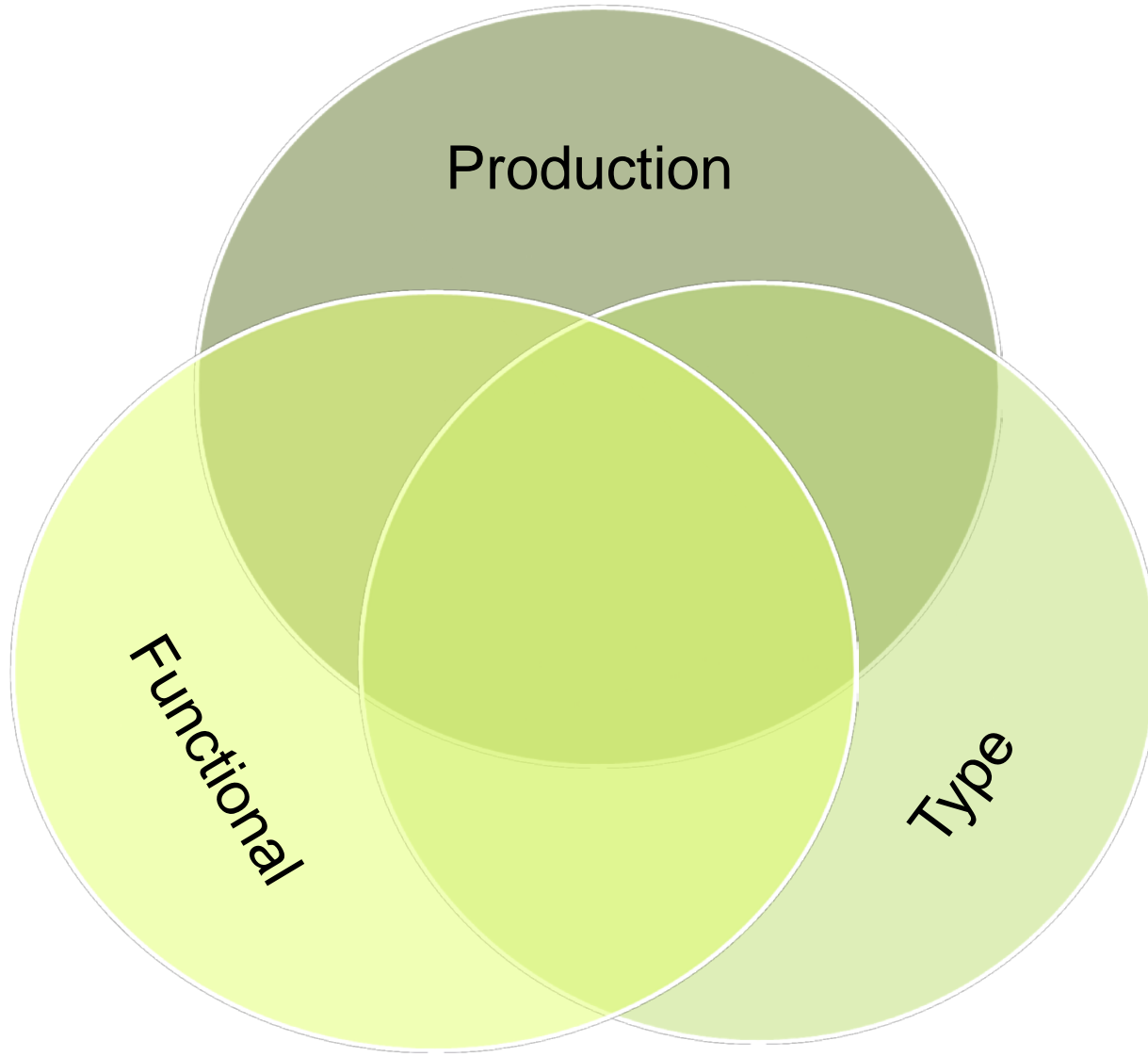




Key Outcomes from Survey

- Profit remains important
- Mastitis, longevity and fertility and protein rank highly
- Emphasis on improving confirmation (Type)
- Some differences seen in preferences

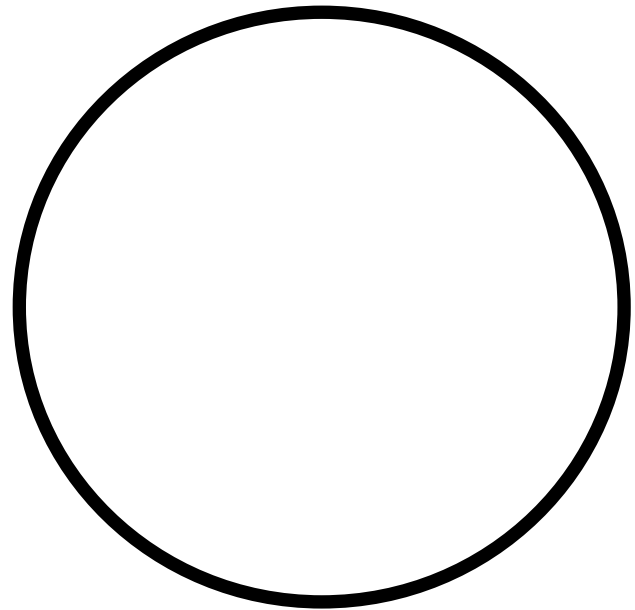
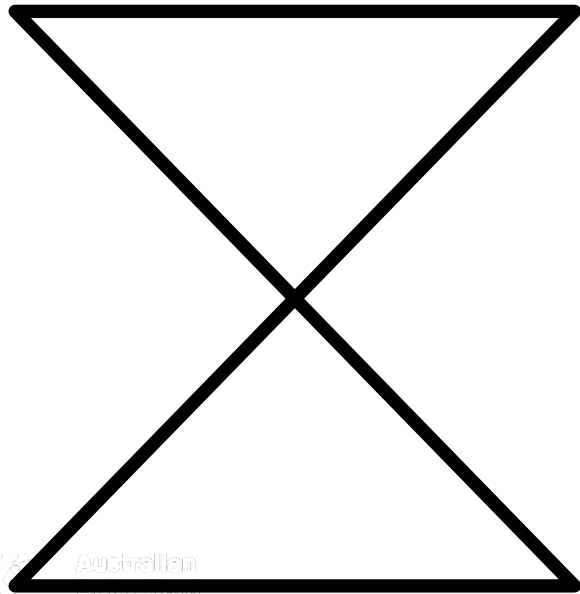
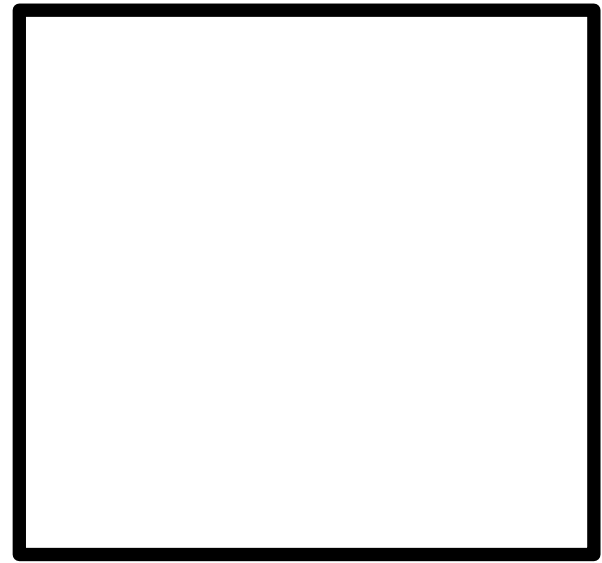
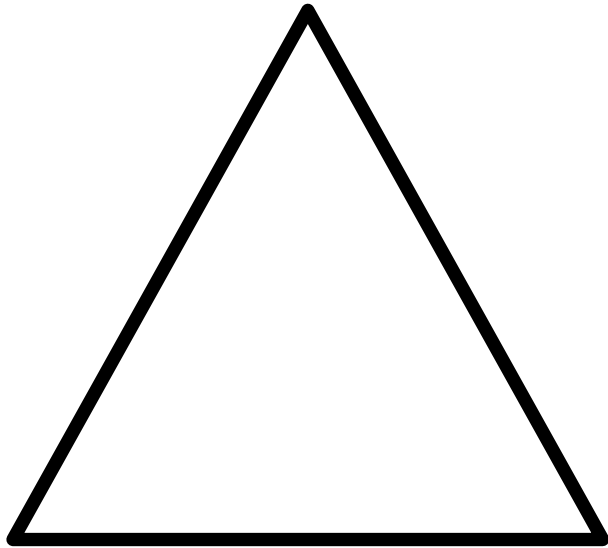




Production

Functional

Type



Introducing the New Indicies

Balanced Performance Index (BPI)

- Economic index
- Blends production, type and health traits for maximum profit
- In line with farmer preferences



Health Weighted Index (HWI)

- Fast track fertility and mastitis resistance



Type Weighted Index (TWI)

- Fast track type

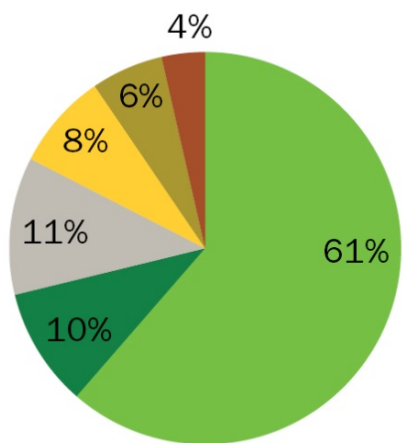


Economic values

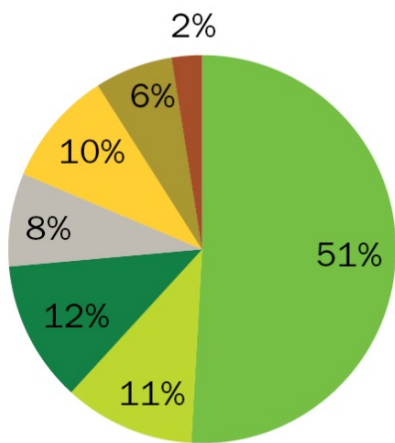
Economic values for new indices

	Protein	Fat	Milk	Residual survival	Fertility	SCC	LW	Milking speed	Mammary	Temp	Udder depth	Overall type	Pin set	Fore-udder attachment	Survival	Feed Saved
APR	7.1	1.43	-0.08	0	4.38	0.67	-2.69	1.63	0	4.28	0	0	0	0	6.99	0
Balanced Performance Index	6.92	1.79	-0.1	8.84	6.94	1.07	0	4.9	1.91	3.51	0.31	2.03	0.59	0	0	0.1488
Type Weighted Index	6.23	1.61	-0.09	8.84	4.86	1.07	0	4.9	2.1	3.51	0.34	5.53	0.65	2.2		0.1488
Health Weighted Index	4.46	1.16	-0.06	8.84	6.94	1.07	0	4.9	2.48	3.51	0.31	2.03	0.59			0.2975

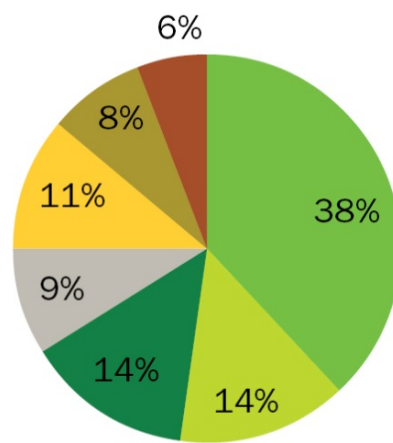
Current (APR)



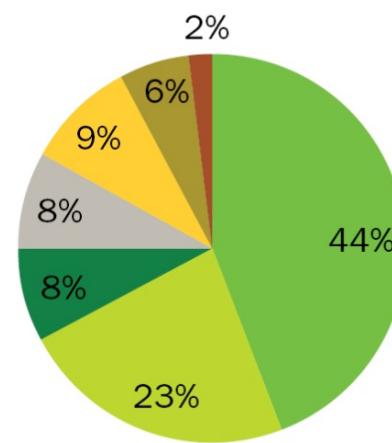
Balanced Performance Index



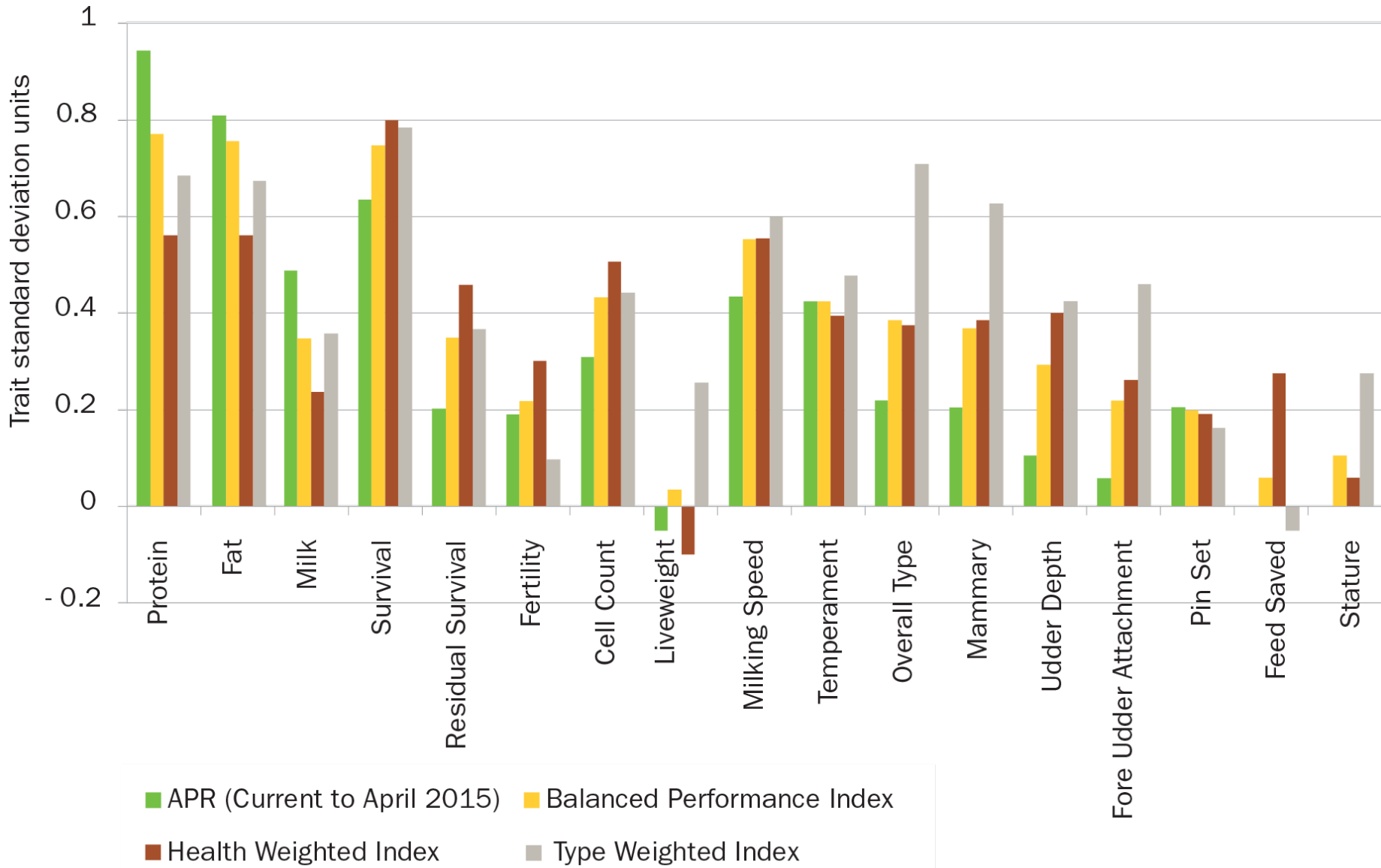
Health Weighted Index

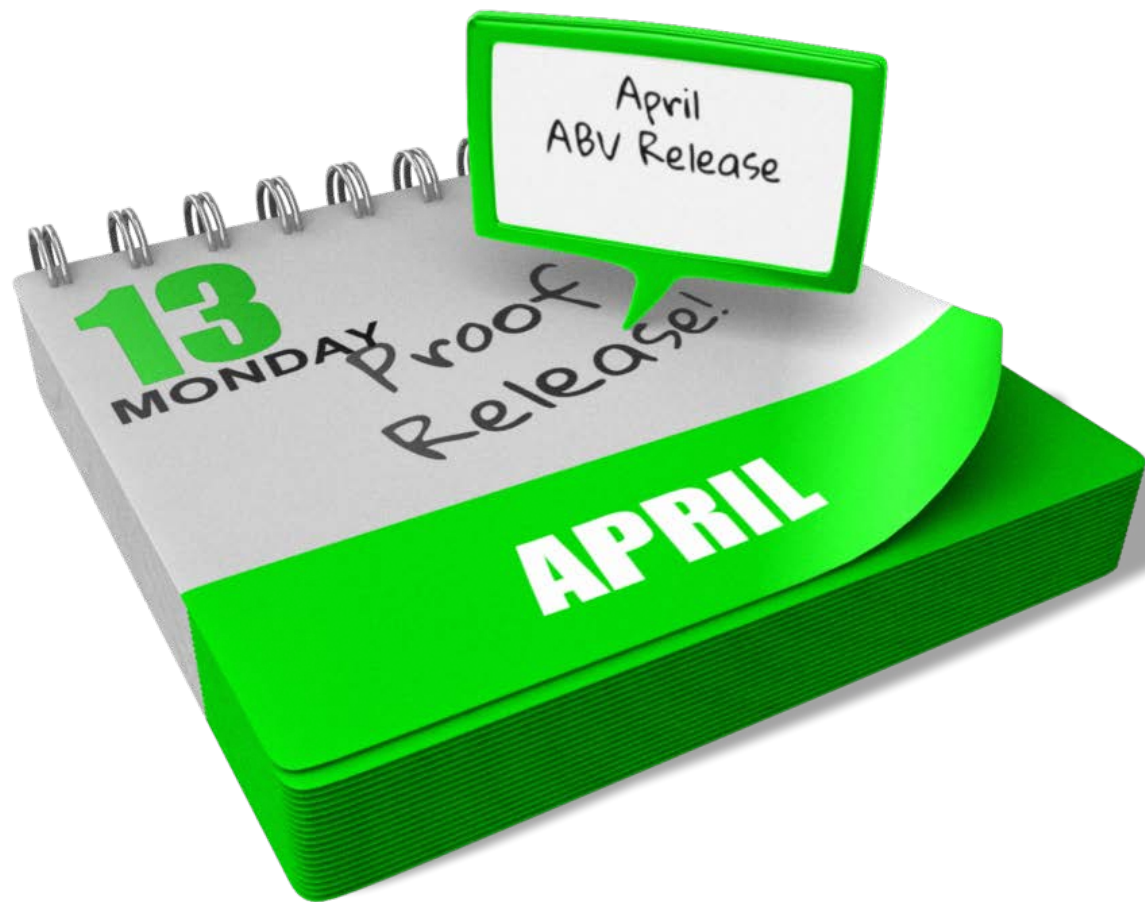


Type Weighted Index



■ ASI - Production ■ Fertility ■ Cell Count ■ Feed Saved ■ Type ■ Survival ■ Workability





Australian Indices. Tailor made for Australian farmers.

When breeding cows are you most interested in...

A balance of production, type and health traits to deliver maximum profit?

Your Index is...

Traits like fertility, mastitis resistance, feed saved and longevity?

Your Index is...

Overall type and mammary system?

Your Index is...

Balanced Performance Index

- Production
- Fertility
- Type

Health Weighted Index

- Fertility
- Less Mastitis
- Improved Longevity

Type Weighted Index

- Overall type
- Improved udders
- Production

What's their real efficiency?



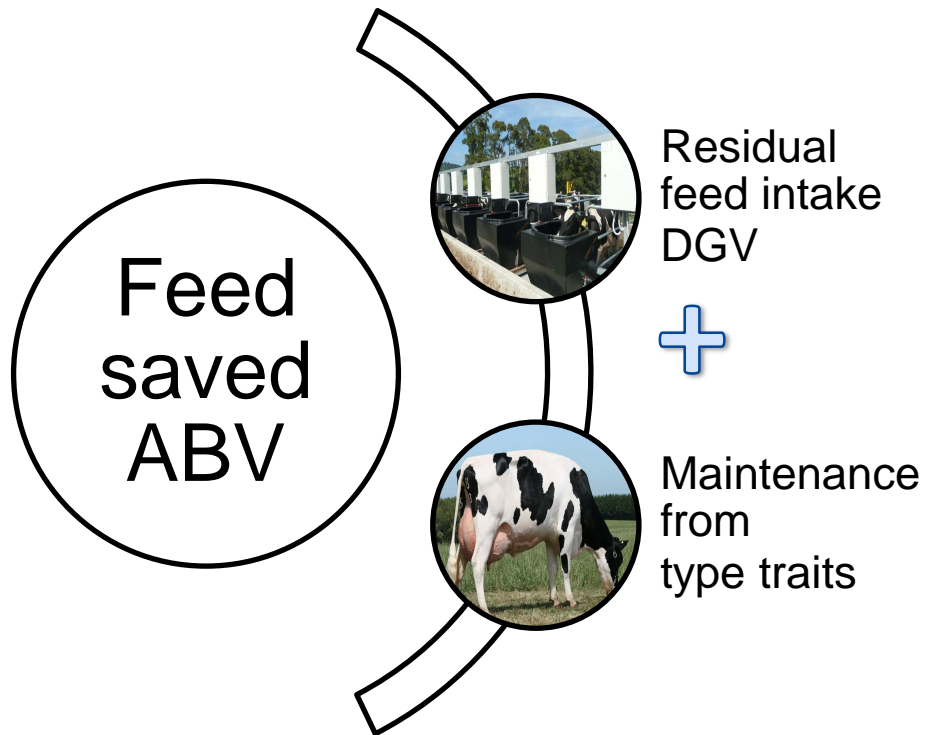
6890 litres/year
600 kg liveweight
20 kg DM/d of feed



6890 litres/year
600 kg liveweight
19 kg DM/d of feed

Cow B is more efficient than cow A
1 kg/d at \$0.3/kgDM is worth \$110/cow/year

Construction of Feed Saved ABV



- Holsteins – Residual Feed Intake plus maintenance
- Other breeds – maintenance requirements

Example Feed Saved ABVs



Holstein		
BULL ID	BPI	FEED SAVED
	BALANCED PERFORMANCE INDEX	FEED SAVED ABV
A	336	- 43
B	320	- 147
C	302	- 4
D	301	110
E	285	2
F	282	- 6
G	277	72
H	277	- 26
I	274	18
J	268	111
	\$ profit/cow/year	kg feed saved /cow/year



Impact
ads

Hearts
and
minds
comms

Invest
in
opinion
leaders

Tools
are
cool

Working
Together



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Scheme



ABVS DON'T BE NUTS GET INTO THEM!

BPI, TWI, HWI – THE ABC OF MORE BUCKS IN YOUR BANK

Faccae. Name perlo doluptio. Ita sminctelneliquo esperibeae volestion est quam, voluptate minctesdiel faccaec eaquatquam Int expilitum aspel Idipsunti rectota Ipid essimus Id uita qui dolum explam ut a et plaborum Iquam hic tem quo od quia sitate posae dssitas ut iadum vent vendam fuga. Nem archil molessime volo dolores dolum faccatur simadmodis destum uta nis

Thank you

ADHIS Team

- Daniel Abernethy, Michelle Axford, Peter Williams, Sarah Saxton, Gert Nieuwhof, Kon Konstantinov, Tim Hancock

NBO Task Force

- Joanne Dickson, Graeme Gillan, Patrick Glass, Daryl Hoey, Mike Huth, Ray Kitchen, James Neal, Matthew Radford, Matthew Shaffer, Peter Thurn

Science Team

- Jennie Pryce & a team of 13 scientists from DEPI-V, AbacusBio and University of New England

Farmwalk Team

- The team of 26 families and 16 farm consultants who hosted Australia's Longest Farmwalk
- Dairy Australia Extension Co-ordinators

Resourced by

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- DEPI-V and Dairy Futures CRC

With support from

- Australian Dairy Farmers
- Regional Development Programs
- NHIA, breed societies, bull companies and resellers

With input from

- Australian Dairy Products Federation
- MLA
- Red Sky
- Dairy Farm Monitor Project
- 27 private consultants, veterinarians, nutritionists, herd improvement advisors and an epidemiologist

Industry Partners



**Australian
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Department of
Economic Development,
Jobs, Transport & Resources

