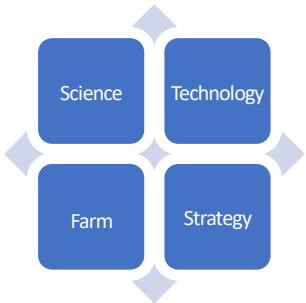


Development and deployment of selection indexes incorporating breeder input

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Where We Work



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Team



Steve Miller,
American Angus
Association
Project lead



Jason Archer



Peter Amer



Cheryl Quinton



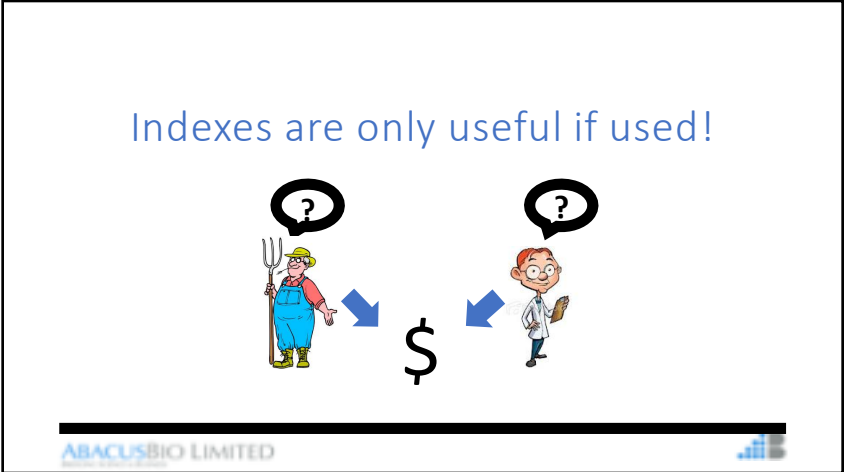
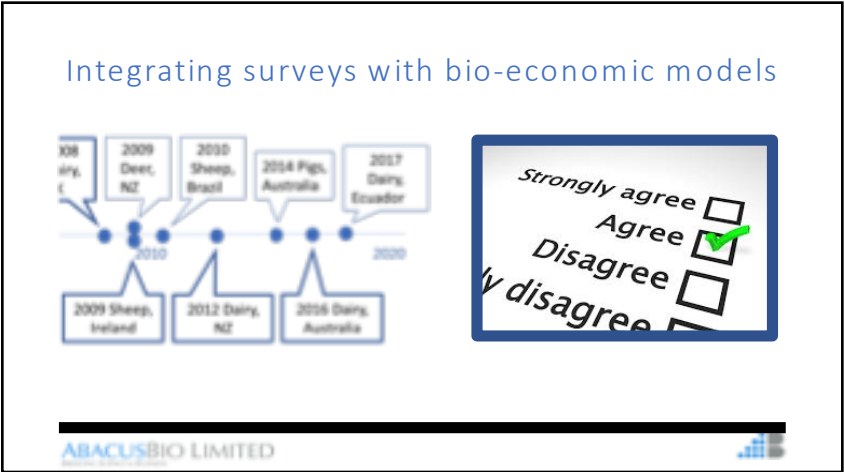
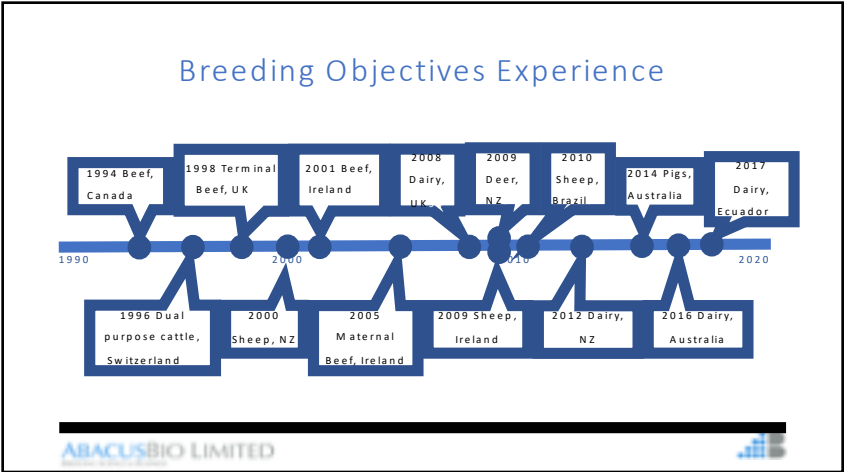
Bruno Santos



Tim Byrne (UK Office)

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Economics are important!



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Are we aiming for the same milk EPD?



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Opinion

Economic
Rationale \$

I don't want
any more milk

I can't feed the cow any
more. If I breed for more
milk, she will lose body
condition and fertility

What would we have to believe?



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Combining Opinion and Economics

- Survey data + economic models - Changes the traditional method of developing breeding objectives
- Quantifies views
 - Identifies trait preferences
- Provides insight into diversity of needs and opinions

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Case Study - Australian Dairy Industry



"The Health Weighted Index is going to help me short list sires that are well aligned to our breeding priorities."

James Neal | Taree NSW



"As a commercially focused herd, the Balanced Performance Index best matches our breeding goal"


Bryan & Jo Dickson | Terang VIC



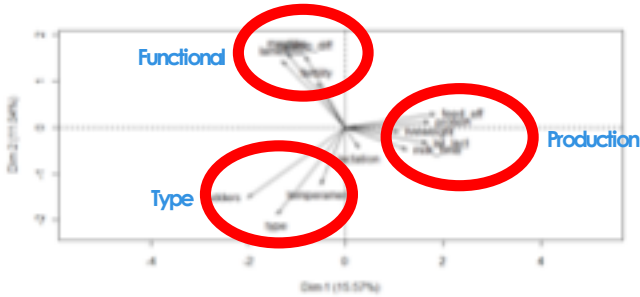
Trait preference outcome


ADHIS - dairy model v6 - % - release

	Bar graph
3 less empty cows per 100 cows per year	17.0%
8 less lameness cases per 100 cows per year	14.9%
1 more lactation per cow	12.8%
Cow live weight does not increase by 10 kg	10.6%
5 less cows culled for poor udders per 100 cows per year	10.6%
5 less cows culled for unacceptable type per 100 cows per year	8.5%
6 less cases of clinical mastitis per 100 cows per year	6.4%
1.5 kg more protein per cow per year	4.3%
2 less very difficult calvings per 100 cows per year	4.3%
5% less time required for milking (with same overall milk production)	4.3%
2 less cows culled for bad temperament per 100 cows per year	2.1%
5% of milk production shifts from peak to late lactation (with same overall milk production)	2.1%
1% less feed per cow (with same overall milk production)	2.1%



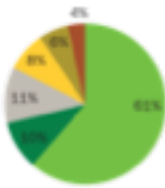
Cluster groups



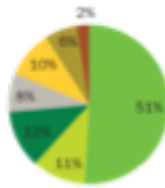


Selection Indexes Created

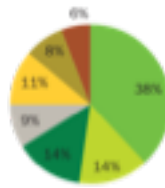
Current (APR)



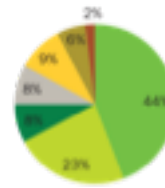
Balanced Performance Index





Health Weighted Index



Type Weighted Index








American Angus Association Survey


1. Demographics and opinions

2. Trait preferences

\$Value Indexes Review


1000minds
when good decisions matter

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American Angus Association - \$Value Indexes Review

7. Which of the feeding systems below best describe the cow-calf (or weaning) part of your operation?

☐ Year-round grazing (cows and calves are fed year around on grass or crop residue with very limited supplemental feed)

☐ Cow herd is grazed year-round on grass or crop residue but replacement heifers and bulls are fed over winter

☐ Cow herd is grazed on grass and crop residue from spring through fall with supplemental feed fed in winter

☐ Drylot where cow herd receives over 75% of their annual feed through feeding of hay, grain and other supplemental feed

☐ Angus

☐ Angus-crossbred

☐ Hereford

☐ Brahman

American Angus Association - \$Value Indexes Review

24. How much emphasis (on a scale of 1 - 100) would you give to each of the groups of traits below?

0

50

100

Growth to weaning

Feeder growth

Cow feed requirements

Fertility

Calfing difficulty

Cow functionality (longevity, feet, udder, docility)

Yield grade

Quality grade

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1000minds

Preferences survey

To reveal your preferences, please answer the following questions (making trade-offs).

Question #12:

Which of these 2 (hypothetical) alternatives do you prefer?

Cow-cow herd
6 more cows live past 3 calvings per 100 cows

10%
20 lbs more weaning weight because of cow milking ability

this one

OR

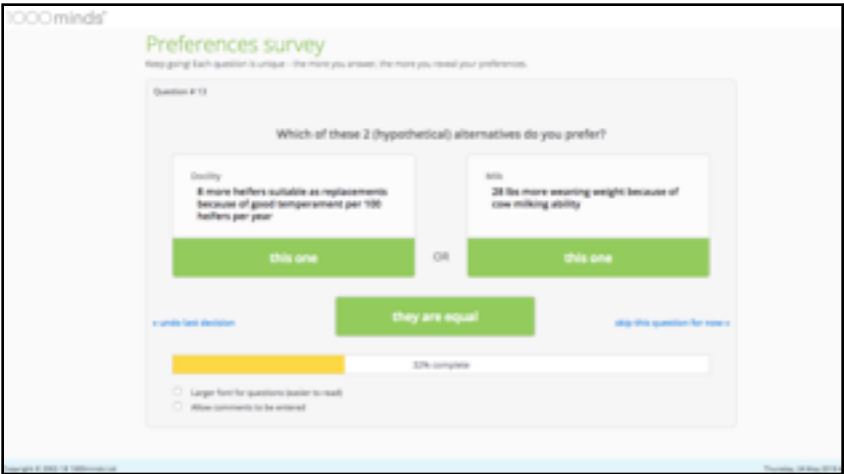
this one

they are equal

27% complete

Larger font for questions (easier to read)

Allow comments to be entered



Following the survey ...

- Identify major groupings based on needs & opinions
- Align economic models and indexes with survey outcomes
- AAA determines preferred index approach

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Visiting and Listening

Different index structures for different reasons

Sub Index	Bull A	Bull B
Calving	+10	+30
Growth	+20	+10
Carcase	+30	+10
Maternal	+10	+30
Total Index \$	+70	+80

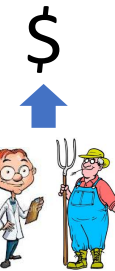
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The Endgame

- AAA has consulted with members and stakeholders and listened
- Revised index(es) aligned to preferences of major groupings
- Index(es) based on sound science rationale and plausible scenarios
- Bulls rankings that make good sense to breeders



Indexes are useful and used!



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