



THE SCIENCE OF SELECTION

The advanced genomic selection tool available
for Australian Angus breeders



ENHANCE YOUR SELECTION AND MANAGEMENT DECISIONS.

The i50K for Angus genomic test is specifically designed to predict key performance traits in Australian black Angus cattle. i50K provides valuable information to commercial and stud producers alike.



KEY PERFORMANCE TRAITS

The test evaluates 22 key performance traits important to the future productivity of your business. i50K for Angus takes the genetic information encoded in an animal's DNA and converts it into Molecular Value Predictions (MVPs) that allow you to assess its genetic potential for a range of economically important traits.

	i50K FOR ANGUS — MOLECULAR VALUE PREDICTIONS FOR 22 TRAITS
CALVING	1 Birth Weight* 2 Calving Ease Direct* 3 Calving Ease Daughters 4 Gestation Length*
GROWTH	5 200 Day Growth* 6 400 Day Weight* 7 Average Daily Gain (Feedlot) 8 600 Day Weight* 9 Mature Cow Weight* 10 Milk (Maternal Ability)*
REPRODUCTION	11 Days to Calving 12 Scrotal Size*
CARCASE	13 Carcase Weight* 14 Eye Muscle Area* 15 Intramuscular Fat (Marbling)* 16 Retail Beef Yield 17 Rib Fat* 18 Rump Fat* 19 Tenderness
EFFICIENCY	20 Dry Matter Intake 21 Net Feed Intake (Feedlot) 22 Net Feed Intake (Post Weaning)

*Traits blended with BREEDPLAN EBVs.



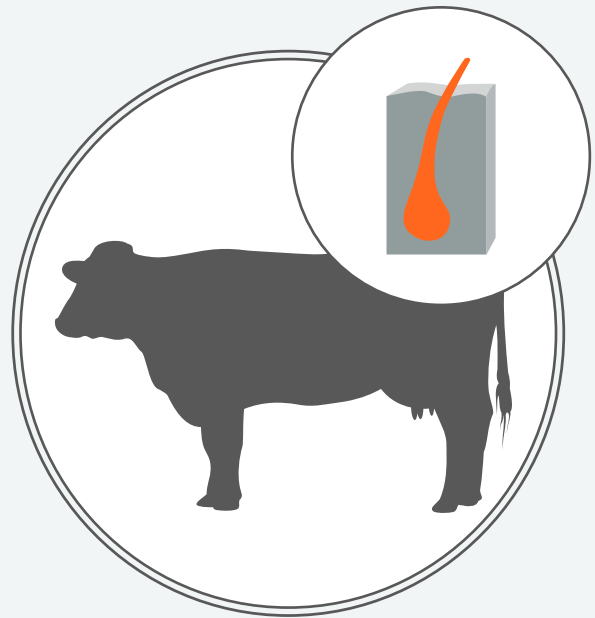
The Science of Selection

i50K for Angus genomic predictions have been developed using BREEDPLAN EBVs provided by Angus Australia. The predictions are designed and built by Zoetis.

UNIQUE KNOWLEDGE FROM DAY 1

A comprehensive genetic evaluation can be obtained from a simple tail hair sample, to:

- Increase the accuracy of management and breeding decisions.
- Select superior heifers to become herd replacements without the bias of age or pregnancy status.
- Utilise young sire prospects in your own herd with confidence.
- Identify elite females for submission to AI or ET programs.
- Ensure you have an informative tool to make the best decisions around market opportunities.



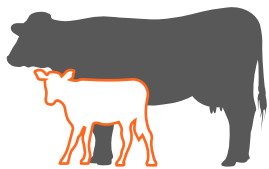
EARLY OPPORTUNITIES

Genomic predictions are most valuable for young animals – they help determine the characteristics of an animal as a potential parent.

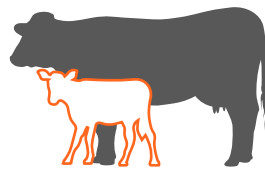
i50K genomic predictions will assist to increase genetic gain by:

- ✓ **Providing insights into traits that you cannot measure or are hard to measure** – this helps to ensure critical breeder traits like female fertility are maintained when selecting on growth or carcase characteristics.
- ✓ **Leveraging information on efficiency traits such as Net Feed Intake** – genomic predictions allow producers to make progress in traits that can never be measured on farm but can significantly affect operating costs.
- ✓ **Visualising your future progeny** – i50K for Angus provides information that is equivalent to recording numerous progeny of the tested animal. For example:

i50K for Angus genomic predictions deliver information that is equivalent to seeing:



9+ progeny with
200 Day growth records



7+ progeny with
scrotal size records

For females this is more information than what would be recorded in a cow's natural calf-producing lifetime and information that would not be available to a producer that does not utilise a genetic improvement program.

i50K for Angus genomic tests enable you to accurately assign parentage:

- Identify bulls producing superior progeny.
- Increase calving rates using a multiple-sire mating approach – use the DNA to assign sires to calves.
- Ensure the accuracy of performance recording with DNA-verified pedigrees.

ENHANCED EBVS



Angus Australia combines pedigree and performance data from Angus BREEDPLAN with 14 of the i50K MVPs to provide the most accurate genetic evaluation available for your stock

- Increase the accuracy of EBVs and selection decisions by blending MVPs from i50K.
- Increase the accuracy of EBVs in small herds or animals outside their contemporary groups.
- Lower the reportability threshold for your herd's EBVs by incorporating i50K for Angus MVPs.
- Ensure you have the most complete and accurate information possible for young, unproven bulls and potential replacement females.

EASY TO UNDERSTAND REPORTS

The i50K for Angus report lists an evaluation for a complete set of traits for each and every one of your tested cattle.

MOLECULAR VALUE PREDICTIONS (MVPs)

Tag/Tattoo:
Animal Ident: K18
Name:

Reg. No: ABCK123
Sex: M

Barcode: 12345678
Breed: Angus
Sample Type: Hair

	CALVING				GROWTH						FERTILITY		CARCASE							EFFICIENCY		
	CE	CE Dtrs	GL	BW	200d	400d	ADG	600d	MCW	MILK	SS	DC	CWt	EMA	Rib	Rump	RBY	IMF	Tend	DMI	NFI ^F	NFI ^P
	%	%	days	kg	kg	kg	kg	kg	kg	kg	cm	days	kg	cm ²	mm	mm	%	%	kgSF	kg/d	kg/d	kg/d
MVP	3.6	2.2	-4.4	2.3	31	62	0.1	72	59	12	2.0	-3.0	42	3	0.8	0.3	0.2	0.8	-0.21	-0.10	0.01	-0.11
BREED RANK	Top 9%	Top 20%	Top 25%	Top 6%	Top 95%	Top 90%	Top 70%	Top 95%	Top 90%	Top 30%	Top 30%	Top 70%	Top 90%	Top 80%	Top 20%	Top 40%	Top 65%	Top 75%	Top 85%	Top 30%	Top 40%	Top 20%

Whether it's enhancing your existing EBVs or actually providing you with genetic information on your herd for the first time, i50K is a powerful and informative selection tool.



To commence a i50K for Angus genomic testing program, or for more information on this product or other genetic products: Contact your local Zoetis sales representative today or call 1300 768 400.



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