

PROGENY TEST PROGRAM

# PROGENY TEST PROGRAM 2021 - 2031



advancing the world's luxury beef



The 2021-2031 AWA Progeny Test Program (AWA-PTP) will leverage the existing highly successful Wagyu BREEDPLAN genetic analysis through testing progeny from the maximum number of emerging industry sires for high value Wagyu sector traits.

The AWA-PTP will also develop new Wagyu-specific traits for reproduction, structure, carcase and eating quality.

# WHY BE INVOLVED?

### GET YOUR SIRES PROGENY TESTED

Any Australian or international based AWA member can nominate sires for the AWA-PTP, providing an opportunity for all AWA members to have their next generation sires proven through the world's largest independent Fullblood Japanese Black Wagyu progeny test program for current and new traits.

### HAVE YOUR COW-HERD BENCHMARKED

Australian-based Herdbook registered cow herds with a minimum of 150 second-calf females have the opportunity to be at the forefront of genetic improvement for the Wagyu sector and have access to leading new industry sires and a cow herd with high accuracy breeding values for current and new traits.







Progeny test programs have been the backbone of the beef industry's genetic improvement for the past 30 years. To date, the AWA has not run a formal progeny test program. Rather, the unique vertical integration and relationships within the Australian Wagyu sector has enabled AWA to build its genetic database and reference population from the high-quality commercial genotype and performance data submitted by AWA members into the Wagyu BREEDPLAN genetic evaluation.

Data submission of key growth and carcase traits has increased significantly over the 2015 – 2020 period (**Figure 1**) and this combined with the introduction of genomics in 2017 has had a positive influence on increasing the accuracy and reliability of key Wagyu Estimated Breeding Values (EBVs) (**Figure 2**). In addition, there has been a significant increase in animal registrations (**Figure 3**) and this too has strengthened the AWA database.

The AWA Progeny Test Program aims to consolidate this progress and provide a formal program which aligns with GOAL TWO of the 2020 – 2025 AWA Strategic Plan: Advance and Protect Our Critical Genetic Resources.

This will be achieved through large-scale testing of diverse sire genetics from sires from the global Wagyu sector and joining them with females from the Australian Wagyu cow herd.



#### **FIGURE 2**

#### Average EBV accuracy for key traits for calves born in each year

Ave. EBV accuracy %



#### **FIGURE 3**



# **PROJECT OBJECTIVES & DESIGN**

- Generate comprehensive progeny test data on approximately 250 emerging Wagyu bulls.
- Capture data on approximately 3,500 female progeny for new and hard to measure traits including female fertility and maternal performance.
- + Capture data on approximately 3,500 steer progeny for feed efficiency and structure as well as new carcase and eating quality traits.
- Produce high-accuracy EBVs for Project Sires and Contributor Cow Herds and benefit the rest of the Wagyu population through genetic linkage and the use of genomic analysis.
- + Improve outcomes of breeding decisions and increase rate of genetic gain within the Wagyu breed.
- Expand the diversity and size of the reference population for the Wagyu breed, leveraging the AWA genomic, pedigree and performance data to enable the validation and refinement of Wagyu BREEDPLAN and Selection Indexes.

The project will run for ten years from 2021 - 2031 aiming to join approximately 40 Fullblood Wagyu sires per year to 2,040 Fullblood Wagyu females for seven breeding years using fixed time artificial insemination (FTAI) as recommended by AWA-PTP ASSISTED REPRODUCTION PARTNER **Vetoquinol's Repro360** team.

The Wagyu females will be located across multiple contributor herds, spanning a range of Australian production environments.

Contributor Herds will be supported by AWA-PTP ANIMAL HEALTH PARTNER **Zoetis**, to ensure best practice management of herd health treatments.

All progeny will be genomically SNP tested and comprehensively performance recorded to support whole-of-life progeny performance evaluation to fuel Wagyu BREEDPLAN and develop new Wagyu-specific EBVs.



#### WANT TO KNOW MORE?

Interested to nominate an animal or find out more about the project contact Laura Penrose, AWA Genetic Projects Manager or visit the AWA website.

## Laura Penrose

AWA Genetic Projects Manager





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