Technote No. 3

# Description of ABV Traits

Australian Dairy Herd Improvement Scheme

**Key messages**

- The expression of non-production ABVs has changed. Use this opportunity to refresh your memory on the meaning, direction and expression of each ABV.
- The direction of the Cell Count ABV has changed. To improve resistance to mastitis, select an ABV above 100.
- Help your clients select bulls to meet their breeding objectives using accurate ABV explanations.

## ABV Expression

To simplify bull selection, ADHIS has improved the expression of ABV's. Although only non-production ABVs have changed, this Technote has been developed to provide a summary of all ABVs currently produced for the Australian dairy industry.

| Profit Indexes | Production Traits | Non-Production Traits |
|---|---|---|
| $ Profit more or less than average. | kg, % or L more or less than average. | % more or less than average. |
| $ | kg % L | 100 |
| **Eg. APR of 120** This bull is $120 more profitable than average. The average is 0. | **Eg. Protein ABV of 40** This bull is 40 kg more protein than average. The average is 0. | **Eg. Daughter Fertility ABV of 104** This bull is 4% greater for daughter fertility than average. The average is 100. |

## What is Average?

Average is the modern dairy cow. ADHIS analysed the national milking population to determine the group of cows which represents the average of the current milking population. This average is set at 0 for production traits and 100 for non-production traits.

## ABV Description Tool

The following chart describes the direction and expression of profit indexes (APR and ASI), production traits and non-production traits.

## ABV Description Tool

| | Production ABVs | ABV More than 0 | ABV Less than 0 |
|---|---|---|---|
| | APR | Dollars more profitable than average. | Dollars less profitable than average. |
| | ASI | Dollars more profitable from production than average. | Dollars less profitable from production than average. |
| | Protein kg | Kilograms of protein more than average. | Kilograms of protein less than average. |
| | Protein % | Percentage of protein more than average. | Percentage of protein less than average. |
| | Milk L | Litres of milk more than average. | Litres of milk less than average. |
| | Fat kg | Kilograms of fat more than average. | Kilograms of fat less than average. |
| | Fat % | Percentage of fat more than average. | Percentage of fat less than average. |
| | **Non-Production ABV's** | **ABV More than 100** | **ABV Less than 100** |
| | Milking Speed | % More daughters rated satisfactory or better than average. Faster milking speed than average. | % Less daughters rated satisfactory or better than average. Slower milking speed than average. |
| | Temperament | % More daughters rated satisfactory or better than average. Temperament is more acceptable than average. | % Less daughters rated satisfactory or better than average. Temperament is less acceptable than average. |
| | Likability | % More daughters rated satisfactory or better than average. More likable than average. | % Less daughters rated satisfactory or better than average. Less likable than average. |
| | **Non-Production ABV's** | **ABV More than 100** | **ABV Less than 100** |
| | Cell Count | % Lower cell count than average (more resistance to mastitis) | % Higher cell count than average (less resistance to mastitis) |
| | Liveweight | % More liveweight than average | % Less liveweight than average |
| | Survival | % More daughters will survive from one year to the next compared to the average | % Less daughters will survive from one year to the next compared to the average |
| | Calving Ease | % More normal or easier calvings than average | % Less normal or easier calvings than average |
| | Daughter Fertility | % More daughters pregnant within 6 weeks (100 days) than average | % Less daughters pregnant within 6 weeks (100 days) than average |
| | **Non-Production ABV's** | **ABV More than 100** | **ABV Less than 100** |
| | Overall Type | % Overall Type ABV more than average | % Overall Type ABV less than average |
| | Mammary System | % Mammary System ABV more than average. | % Mammary System ABV less than average. |
| | Stature | % Taller than average | % Shorter than average |
| | Udder Texture | % More textured than average (soft) | % Less textured than average (fleshy) |
| | Bone Quality | % Flatter bone than average | % Coarser bone than average |
| | Angularity | % More angular than average | % Less angular than average |
| | Muzzle Width | % Wider muzzle than average | % Narrower muzzle than average |
| | Body Length | % More body length than average (longer) | % Less body length than average (shorter) |
| | Body Depth | % More body depth than average | % Less body depth than average |
| | Chest Width | % Wider chest than average | % Narrower chest than average |
| | Rump Length | % Longer rump than average | % Shorter rump than average |
| | Pin Width | % Wider pins than average | % Narrower pins than average |
| | Pin Set | % Rump slopes more than average | % Rump slopes less than average |
| | Foot Angle | % Greater foot angle than average | % Less foot angle than average |
| | Rear Set | % More curved than average when viewed from the side | % Straighter than average when viewed from the side |
| | Rear Leg Rear View | % Straighter legs when viewed from the rear | % Legs "hock in" more than average when viewed from the rear |
| | Udder Depth | % Shallower than average | % Deeper than average |
| | Fore Attachment | % More smoothly attached | % Less smoothly attached |
| | Rear Attachment Height | % Higher rear attachment than average | % Lower rear attachment than average |
| | Rear Attachment Width | % Wider rear attachment than average | % Narrower rear attachment than average |
| | Centre Ligament | % Stronger ligament than average | % Weaker ligament than average |
| | Teat Placement | % Closer front teat placement than average | % Wider front teat placement than average |
| | Teat Length | % Longer teats than average | % Shorter teats than average |
| | Loin Strength | % Stronger loin than average | % Weaker loin than average |



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