



## Pig Genetics: How to get information?

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### *Genes influence pig performance*

The genetic make-up of a pig is an important factor that influences performance and ultimately the economic efficiency of pig production. Other factors that affect performance levels include nutrition, health, housing and management. All of these aspects need to be considered in order to optimise pig production systems. This information sheet provides an overview about information available to the Australian pig industry with respect to principles of genetic improvement.

### *Maximum genetic improvement throughout the industry*

Genetic improvement of pig production has a long-term perspective. Sound breeding programs need to be in place to ensure continued genetic improvement at all levels of the breeding pyramid. The breeding pyramid consists of seedstock providers, multipliers and commercial producers. Maximum genetic gain throughout the industry depends on the genetic gains that are achieved in purebred populations at the seedstock level, their multiplication and the efficiency of crossbreeding programs at the multiplication and commercial level.

A range of information is available to each sector of the breeding pyramid from the Animal Genetics and Breeding Unit (AGBU) in Armidale, NSW. Avenues to disseminate this information include:

- **Pig Genetics Information sheets**
- **Workshops and seminars**
- **Specific enquiries and consultancies**
- **Publications from R&D**

### *Pig Genetics Information sheets*

The Pig Genetics Information sheets are a series of short articles (two or four pages long) that outline principles of genetic improvement of pig production. These sheets are available from the AGBU web pages at: <http://agbu.une.edu.au/piginfo> and provide information about:

- **PIGBLUP – User friendly genetic evaluations for pigs**  
The different features of PIGBLUP are outlined. This information is mostly of interest to seedstock providers.

- **General information about pig genetics**  
Principles of pig genetics are explained. The target group includes seedstock breeders, industry consultants and interested producers.
- **Practical pig breeding – purebred and self-replacing populations**  
Practical aspects of selecting superior pigs within purebred populations are described.
- **Practical pig breeding – crossbred populations**  
The emphasis is to demonstrate the economic benefits of using superior genetics. Producers will find this information useful.
- **Information about the National Pig Improvement Program (NPIP)**  
Estimated Breeding Values (EBVs) are the most accurate information about the genetic merit of an animal. EBVs from the NPIP are displayed for boars available in AI stations along with genetic trends, distributions of EBVs, lists of the Top Young Animals and other news from the NPIP.

### ***Workshops and seminars***

Pig Genetics workshops have been conducted by AGBU since 1991 and are held every 18 months. During these two-day workshops, the latest developments of PIGBLUP are demonstrated and results from research projects are reported. The workshop provides a forum for Australian and overseas seedstock breeders to discuss the latest developments in pig genetics. The list of papers presented at these workshops is available at: <http://agbu.une.edu.au/PIGBLUP>.

Seminars are presented to producer groups in the Australian pig industry in cooperation with key industry personnel (ie. extension staff, consultants). These seminars are prepared specifically for each audience and a wide range of topics relevant to pig genetics can be covered.

### ***Specific enquiries and consultancies***

Seedstock providers and producers alike are encouraged to contact Susanne Hermesch at AGBU (ph: 02 6773 3787; e-mail: [Susanne.Hermesch@une.edu.au](mailto:Susanne.Hermesch@une.edu.au)) for any enquiry related to genetic improvement of pig production.

In addition, staff at AGBU provide consultancy services on a fee-paying basis as required. Breeding companies and producers who seek support in the design of their (cross-) breeding program will receive confidential and independent advice.

### ***Publications from Research and Development***

Information about the various research projects undertaken in pig genetics at AGBU is available from the AGBU web pages: <http://agbu.une.edu.au>. Further links refer to the PIGBLUP pages (<http://agbu.une.edu.au/PIGBLUP>), the list of publications, and AGBU staff profiles.

