



**2016**



# GLOBAL DOHNE CONFERENCE

JULY 21 -22 | AUSTRALIA

*Celebrating*  
**50 years**

**“A must for all sheep producers”**

**“Dohne Genetic Evaluation on the  
World Stage”**

**Hamish Chandler, Manager – Sheep Genetics**

# The purpose of Sheep Genetics?

SHEEP GENETICS

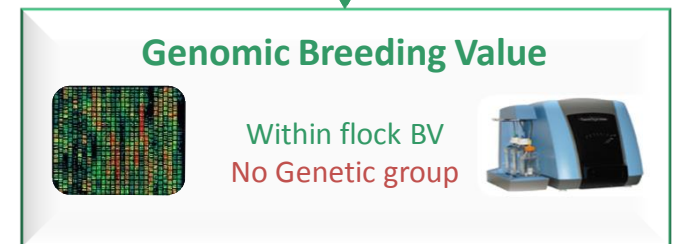
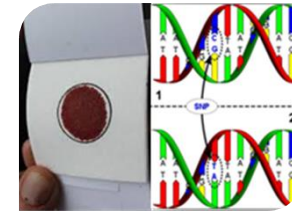


- ” SG is the national genetic evaluation service for the Australian sheep industry.
- ” Our role is to provide tools for producers to breed the sheep that they want.
- ” Success measured by rate of genetic improvement by the number of animals.



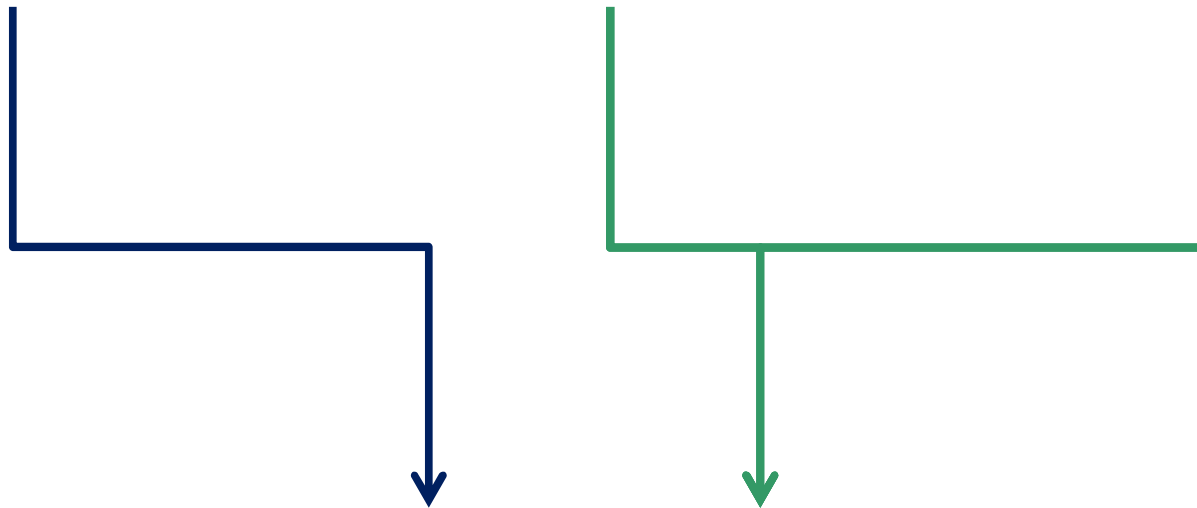
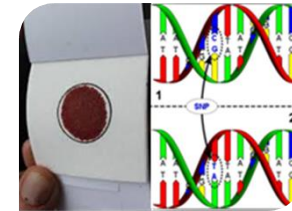
# Analysis Upgrades – Blended

SHEEP GENETICS



# Analysis Upgrades – Single Step

SHEEP GENETICS



**Australian Sheep Breeding Values**

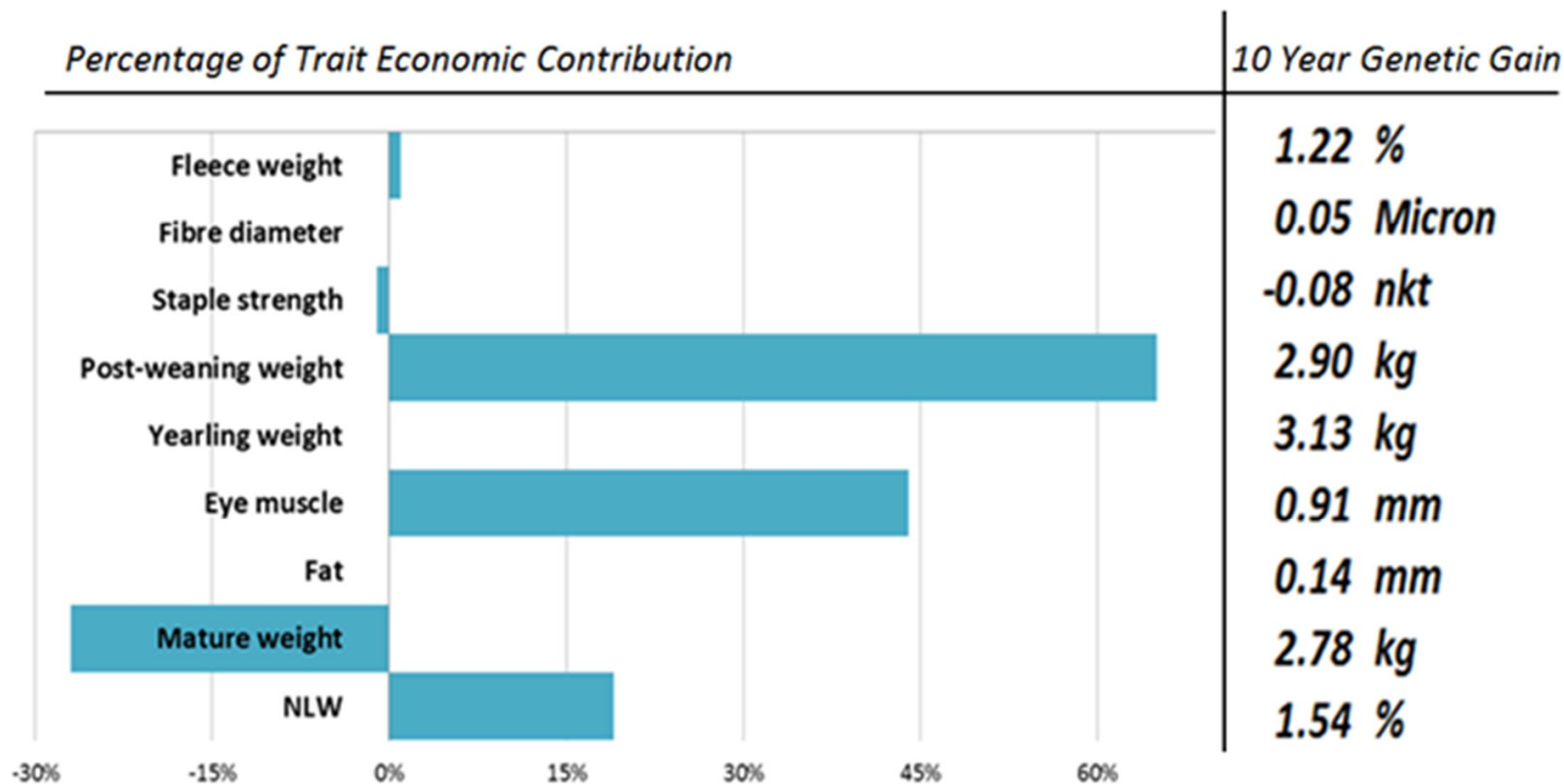
**MERINOSELECT**  
ASBV

Within flock BV  
Genetic Group

**LAMBPLAN**  
ASBV

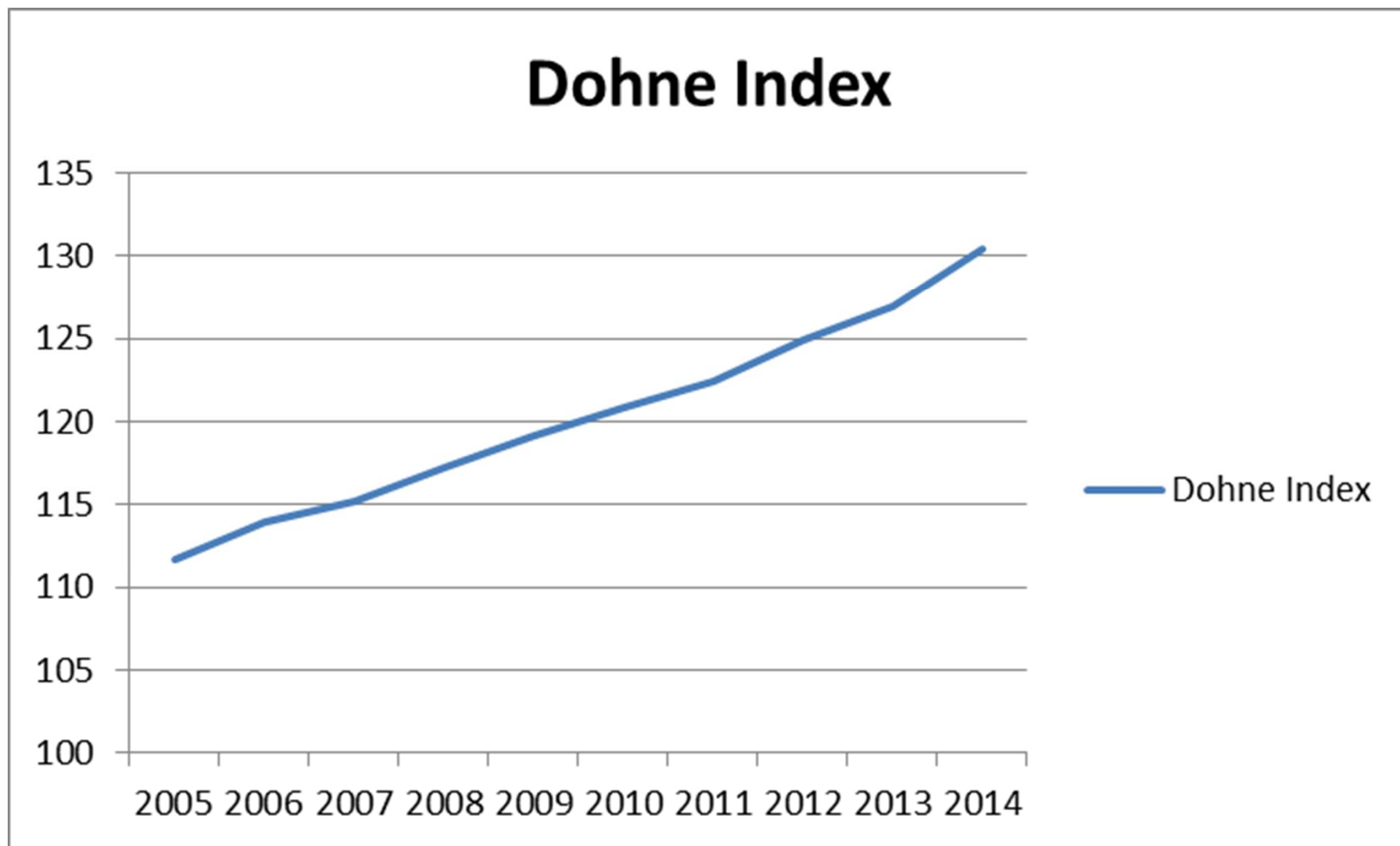


# Dohne Index

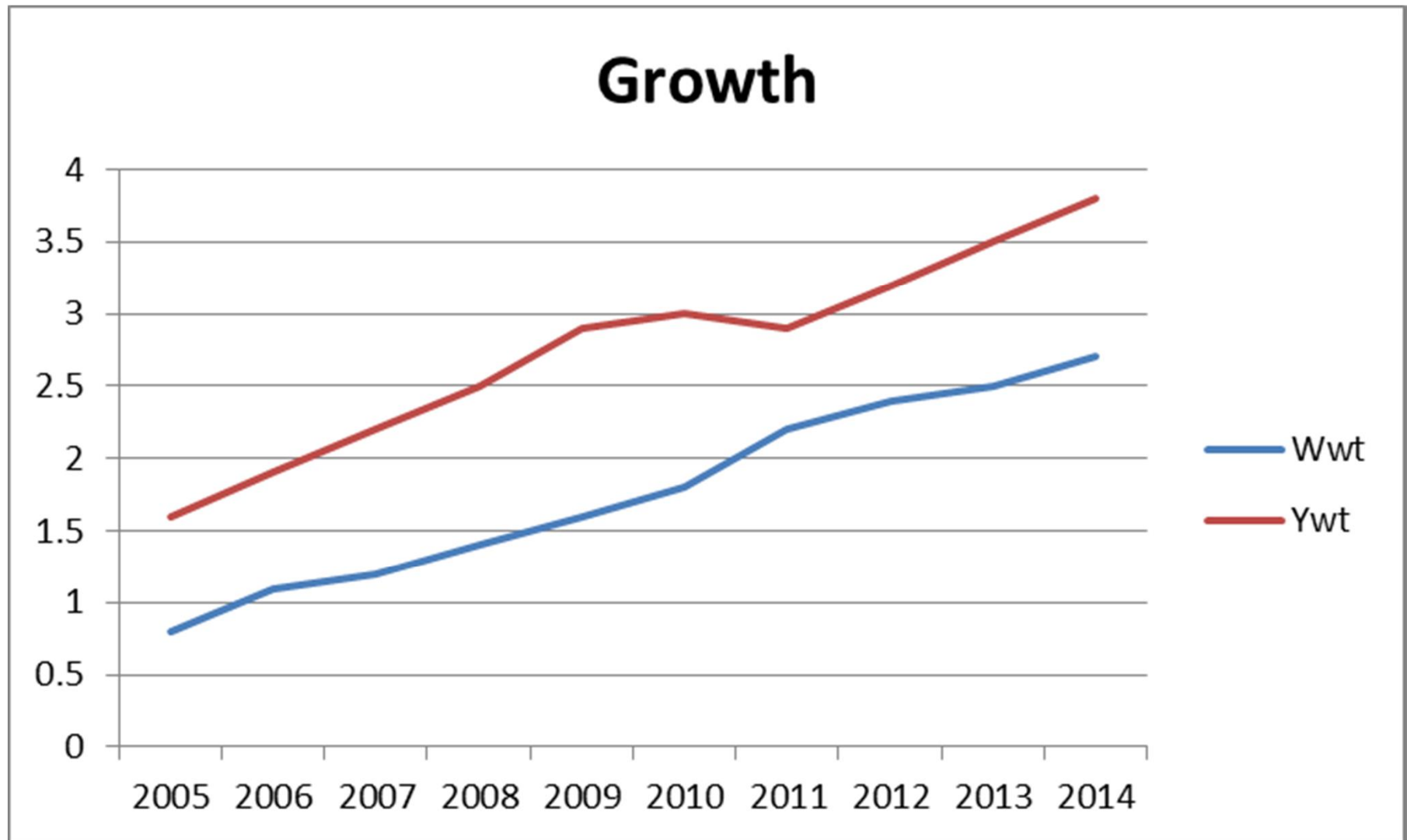




## Dohne Genetic Trends

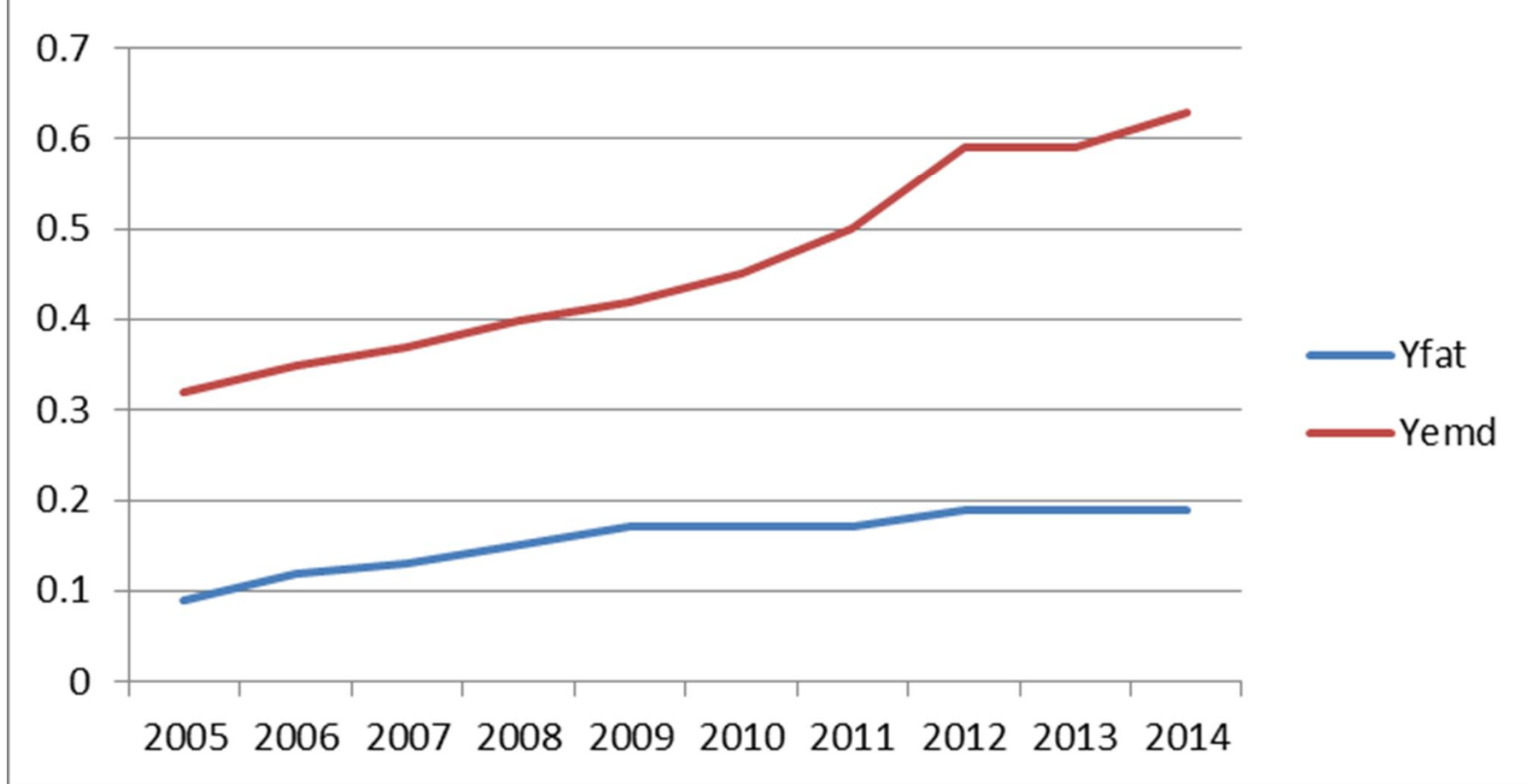


# Dohne Genetic Trends



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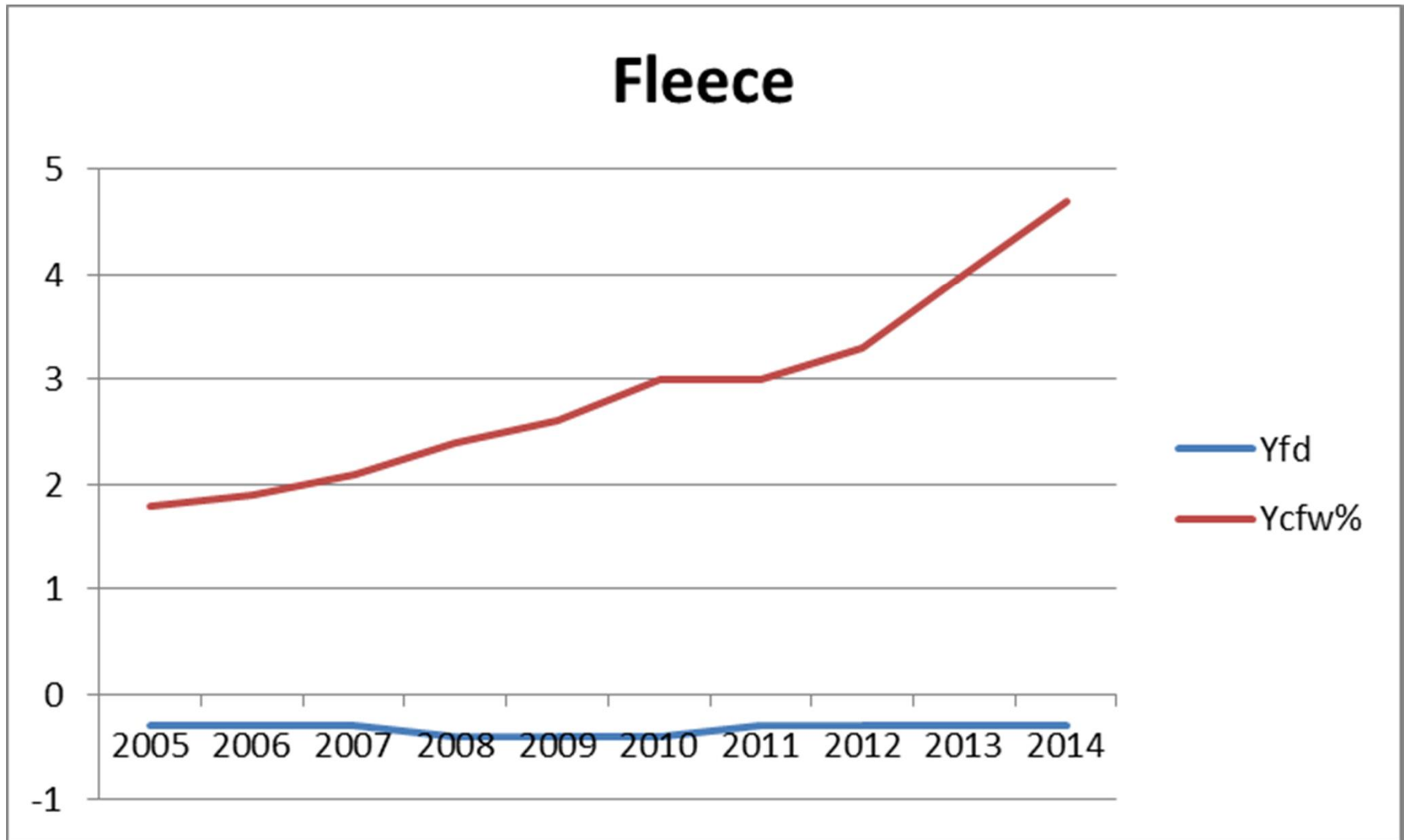
## Muscle & Fat



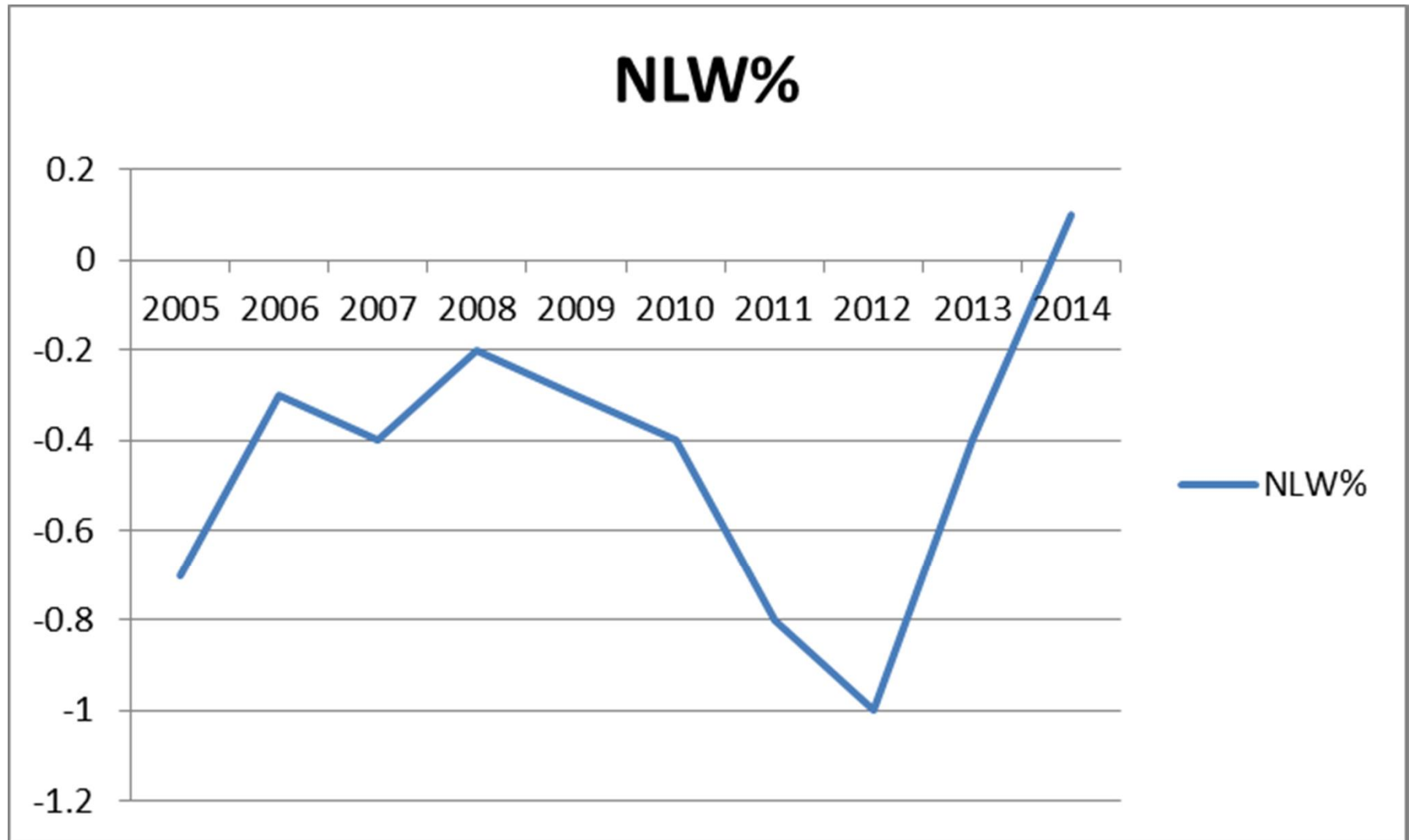


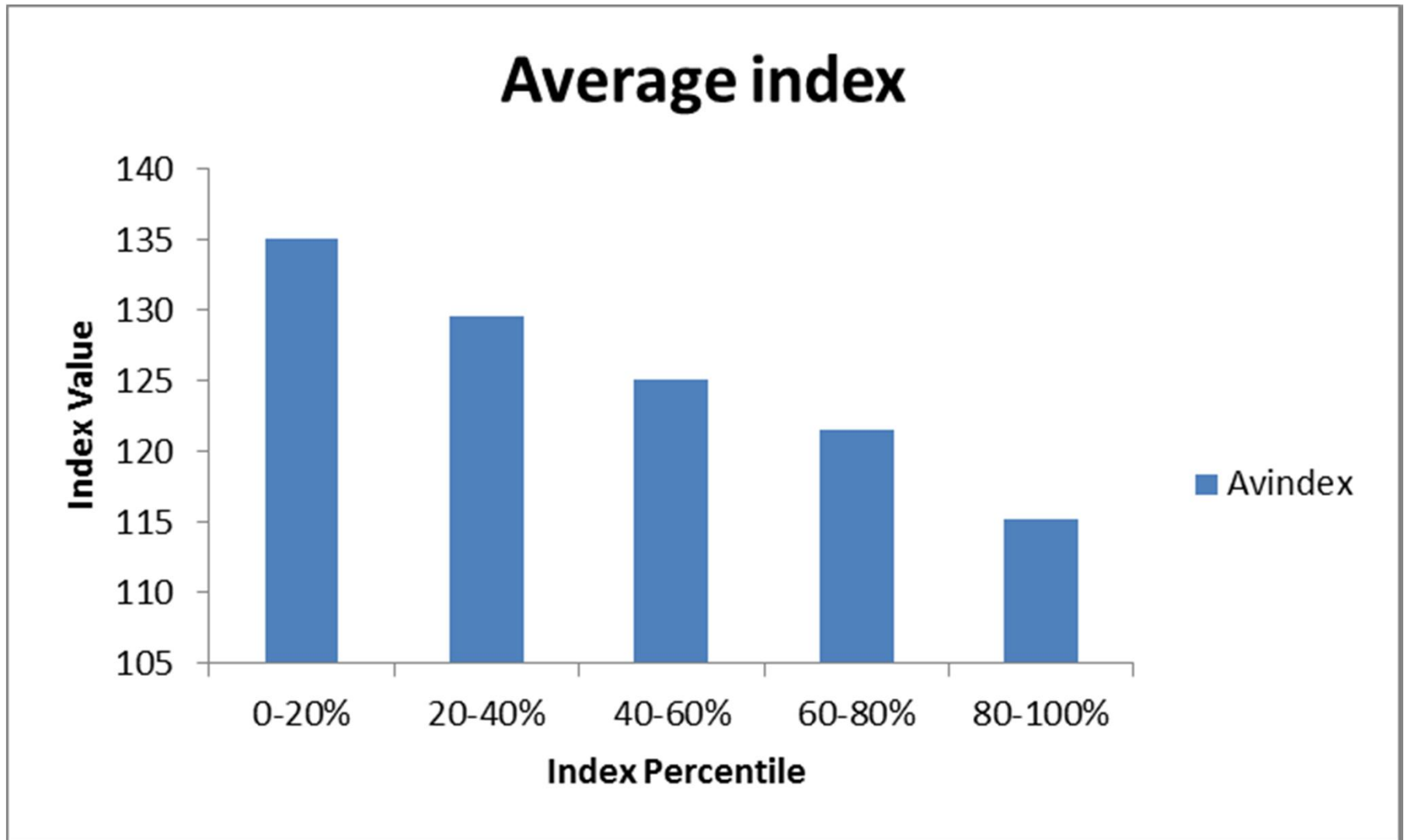
# Dohne Genetic Trends

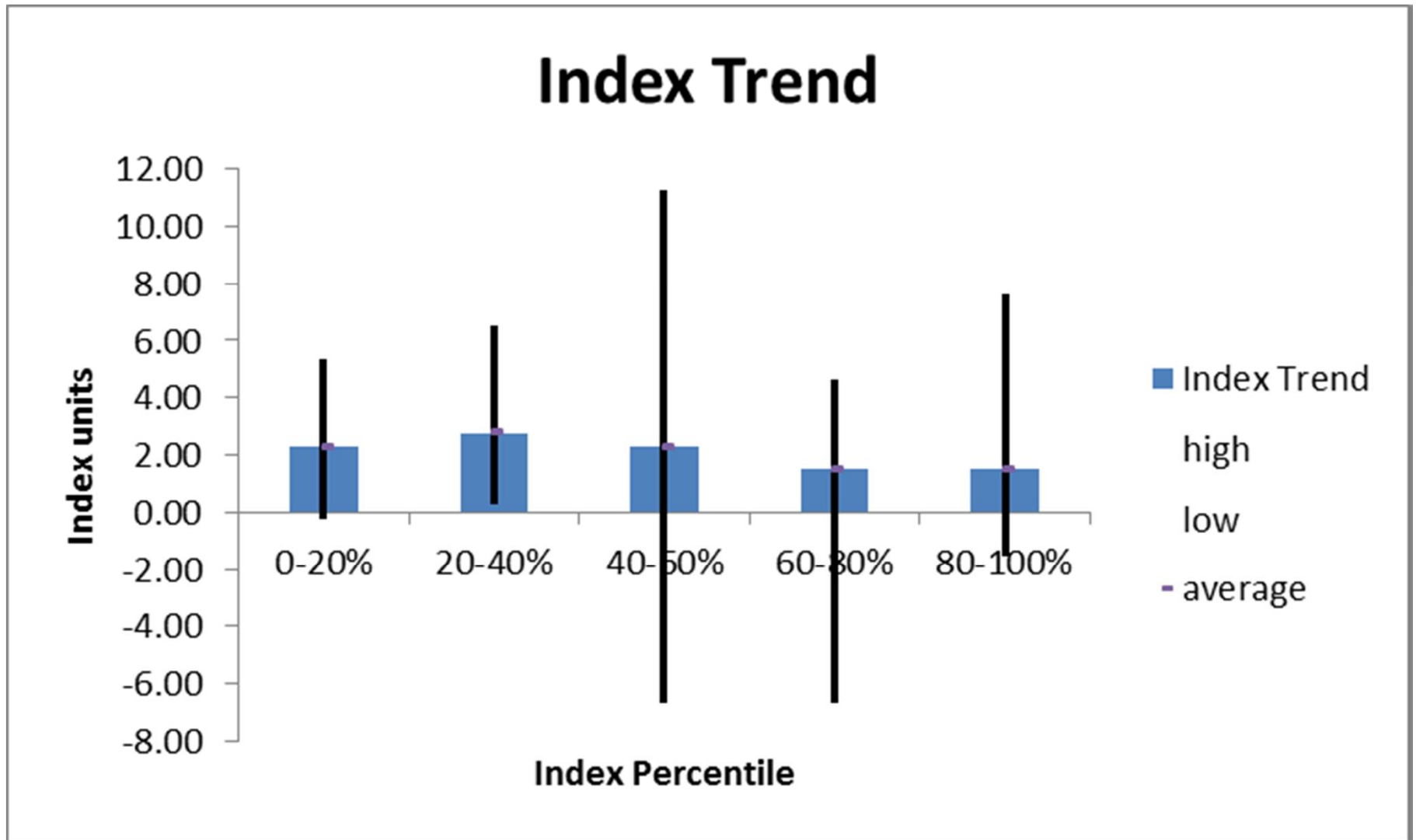
## Fleece



# Dohne Genetic Trends







# RAMping up genetic gain

SHEEP GENETICS



## Project Aims

- ” Improve Breeding Program Effectiveness and Genetic gain:
  - . Develop series of on farm reports
  - . Identify potential barriers to genetic gain through benchmarks
  - . Develop clear recommendations
- ” Develop training package that accredited Service Providers can use
- ” Reports available via Dashboard for SP and Breeder access
- ” Allow a more proactive approach



# Breeders Equation

SHEEP GENETICS



**Selection intensity:**

Select only the very best animals

**Selection accuracy:**

Pick the best ones more often

**Generation Interval:**

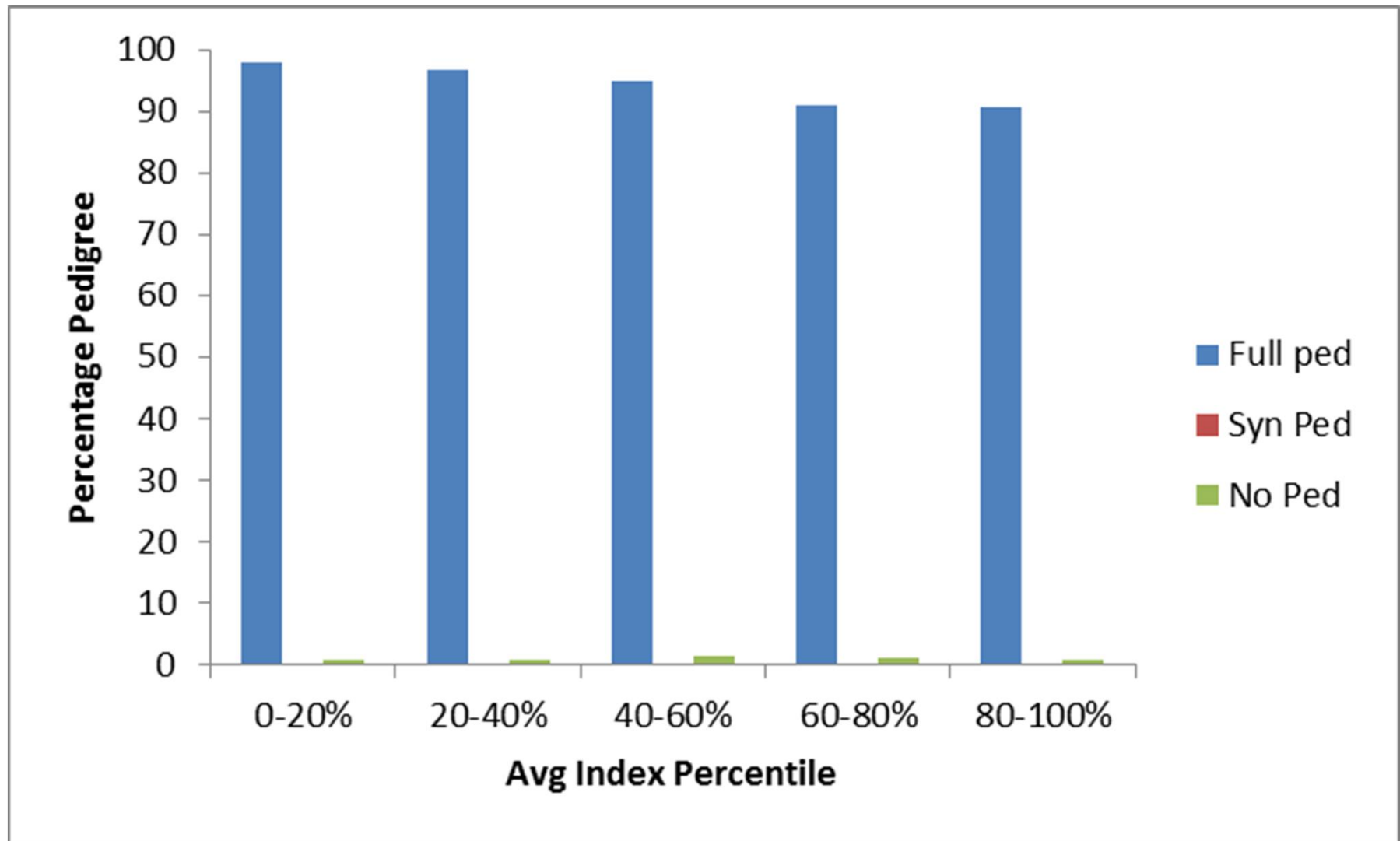
Breed from them as soon as possible

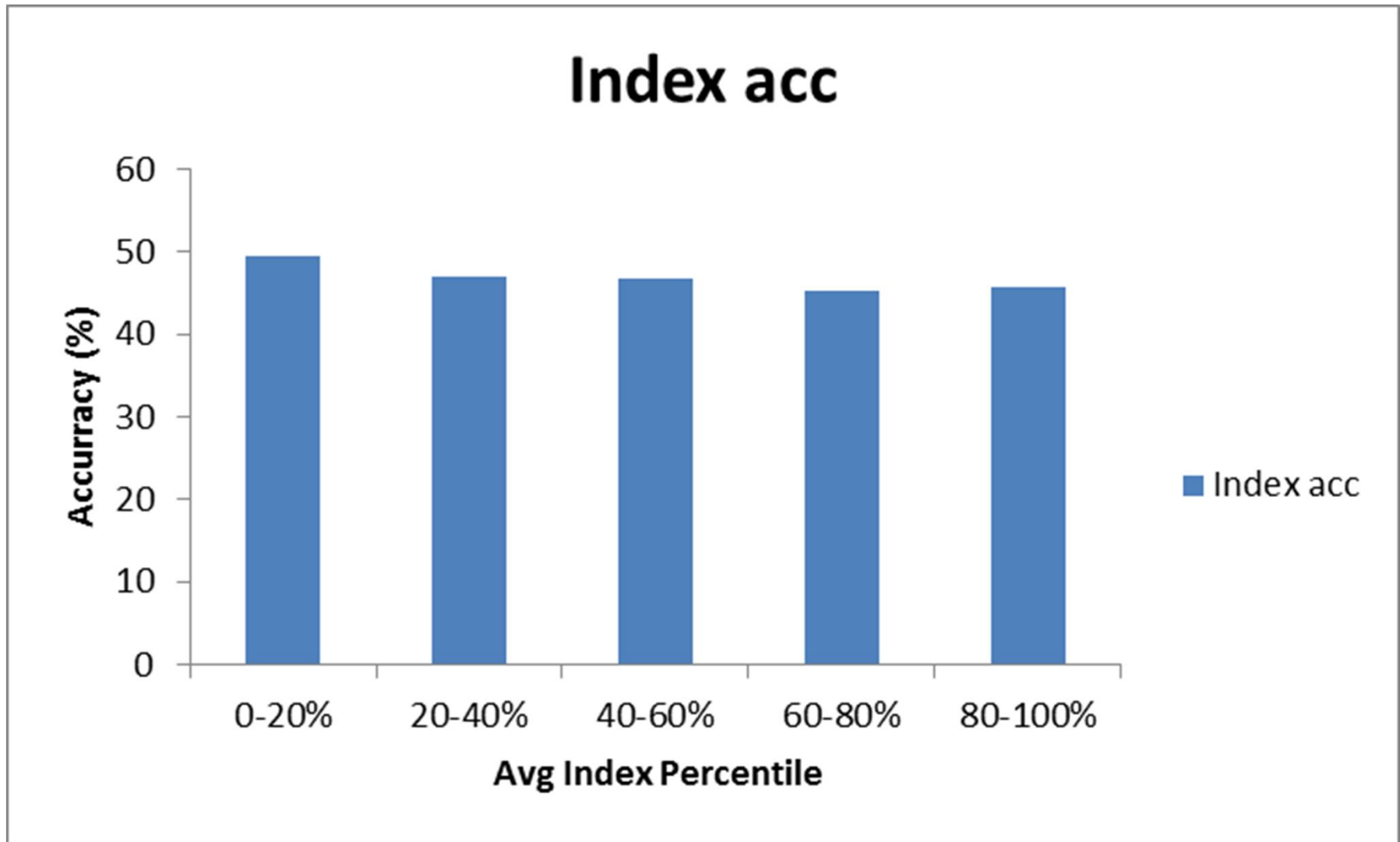
**Variation:**

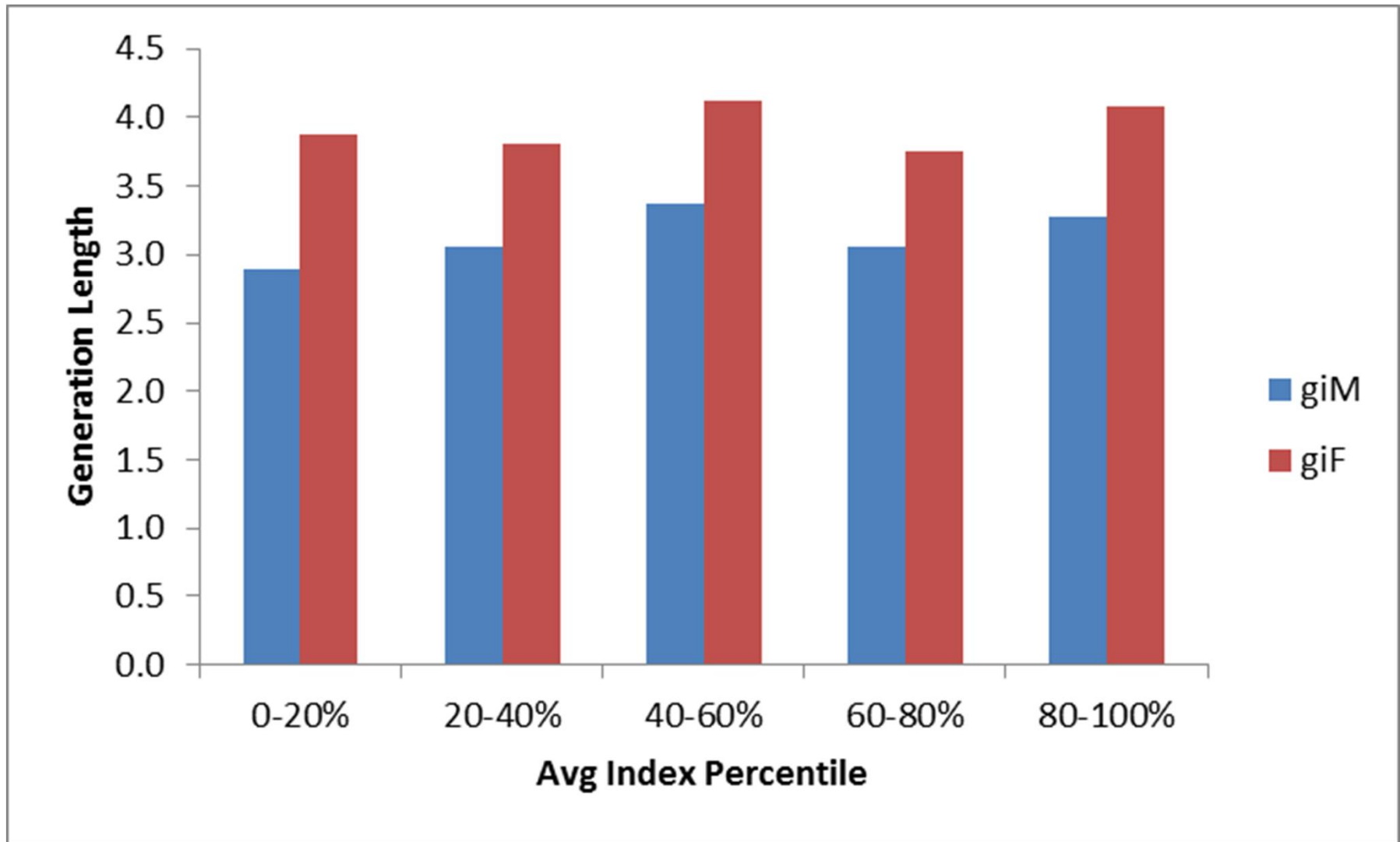
Different enough to pick from

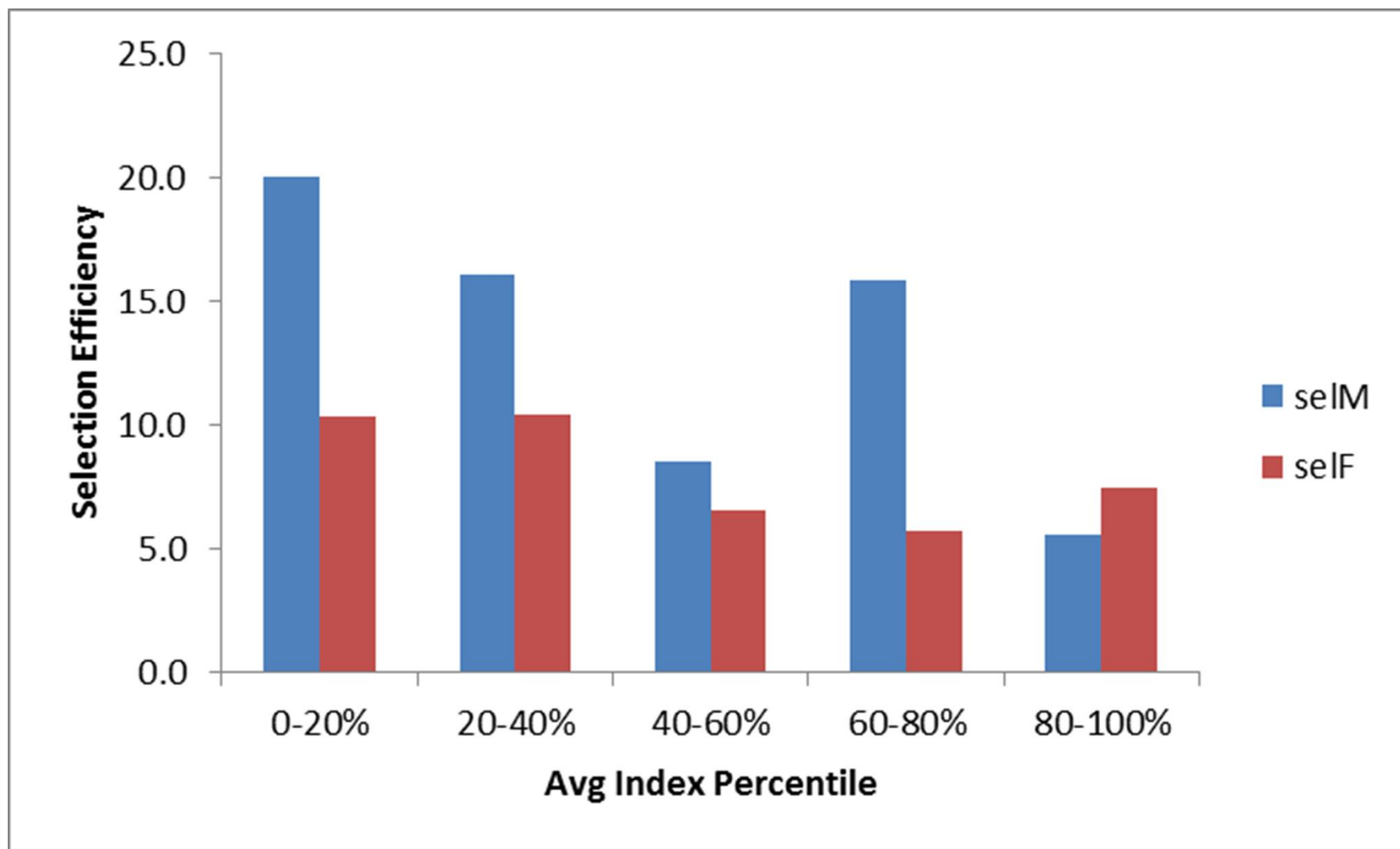












# Commercial Breeders

“ Rams;

- . Which ASBVs & index match your breeding objective
- . Select rams with the best available ASBVs in your price range that are functional
- . Ram audit, annually review all rams in the sire team, are they good enough to still be there?
  - . How long have you been keeping them?

# Commercial Breeders

” Ewes;

- . How have you been selecting your replacement ewes?
  - ” Visual only/Visual and measurement
- . How could this be done with higher accuracy?
  - ” Records for weight and preg scan?
  - ” RAMPOWER?
  - ” Singles vs twins
- . Culled on age or performance?



# Global Dohne Evaluation

- ” Useful if genetics are being, or can be, exchanged between countries
  - . Can we identify genetic linkage?
- ” A global evaluation has the potential to identify more variation with higher accuracy
  - . Potential for higher rates of gain
- ” Already several international flocks in the Sheep Genetics Dohne evaluation

# Global Dohne Evaluation

- ” Direct international subscription through ABDA
- ” Submission through association/society
  - . If alignment with ADBA
- ” Data exchange between Sheep Genetics and other service providers
  - . E.g. Trans-Tasman data exchange with SIL for Maternal breeds
- ” Needs to be tested on a case-by-case basis

## Key points

- ” Dohne rate of genetic progress is good
  - . Driven by accuracy of selection
- ” Rate of gain could be improved by;
  - . Higher selection efficiency, better use of BVs
  - . Shorter generation interval
- ” Scope for more global collaboration