Beef Progeny Test Project – Ultra-sound scan data and heifer reproduction

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ABACUSBIO LIMITED
Bridging Science & Business

Why are we doing this project?

- How much value does the right genetics return in commercial beef operations?
- Demonstrating current and new tools
- Improving the tool kit

Questions

- Is there a trend in cow EBV profiles that relates to commercial cow performance in hill country?
  - And how do we best balance this with finishing performance and carcase value?

- What are implications of different cow management strategies on economic importance of relevant traits?
  - Do different management strategies (BCS fluctuations) need different genetics?

BEEF PROGENY TEST PROPERTIES

1

WHANGARA FARMS
(Angus)

2

RANGITAIKI STATION
(Angus, Landcorp)

3

TAUTANE STATION
(Angus, Taratahi)

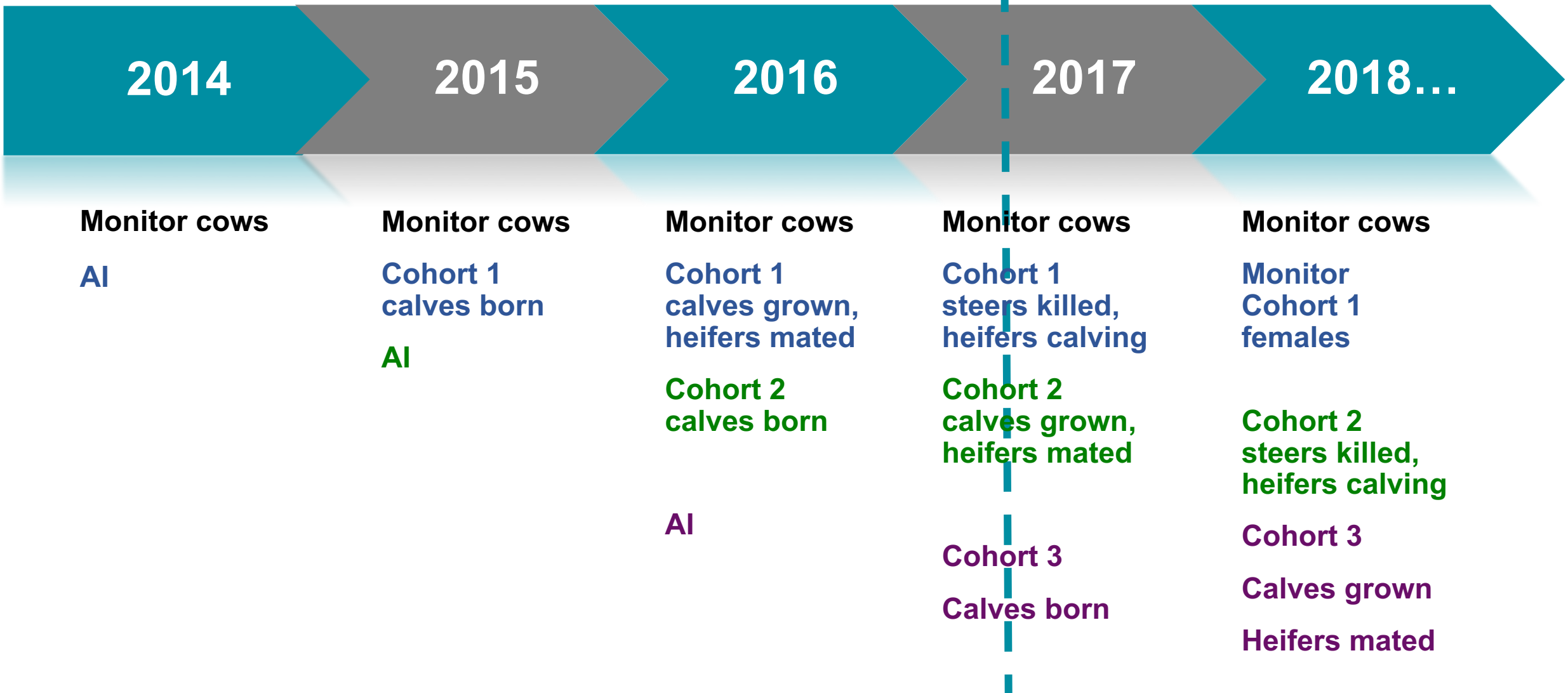
4

MENDIP HILLS
(Hereford, Black Family)

5

CABERFEIDH STATION
(Angus, Lone Star)

Where are we now?



Does genetics make a real difference commercially?

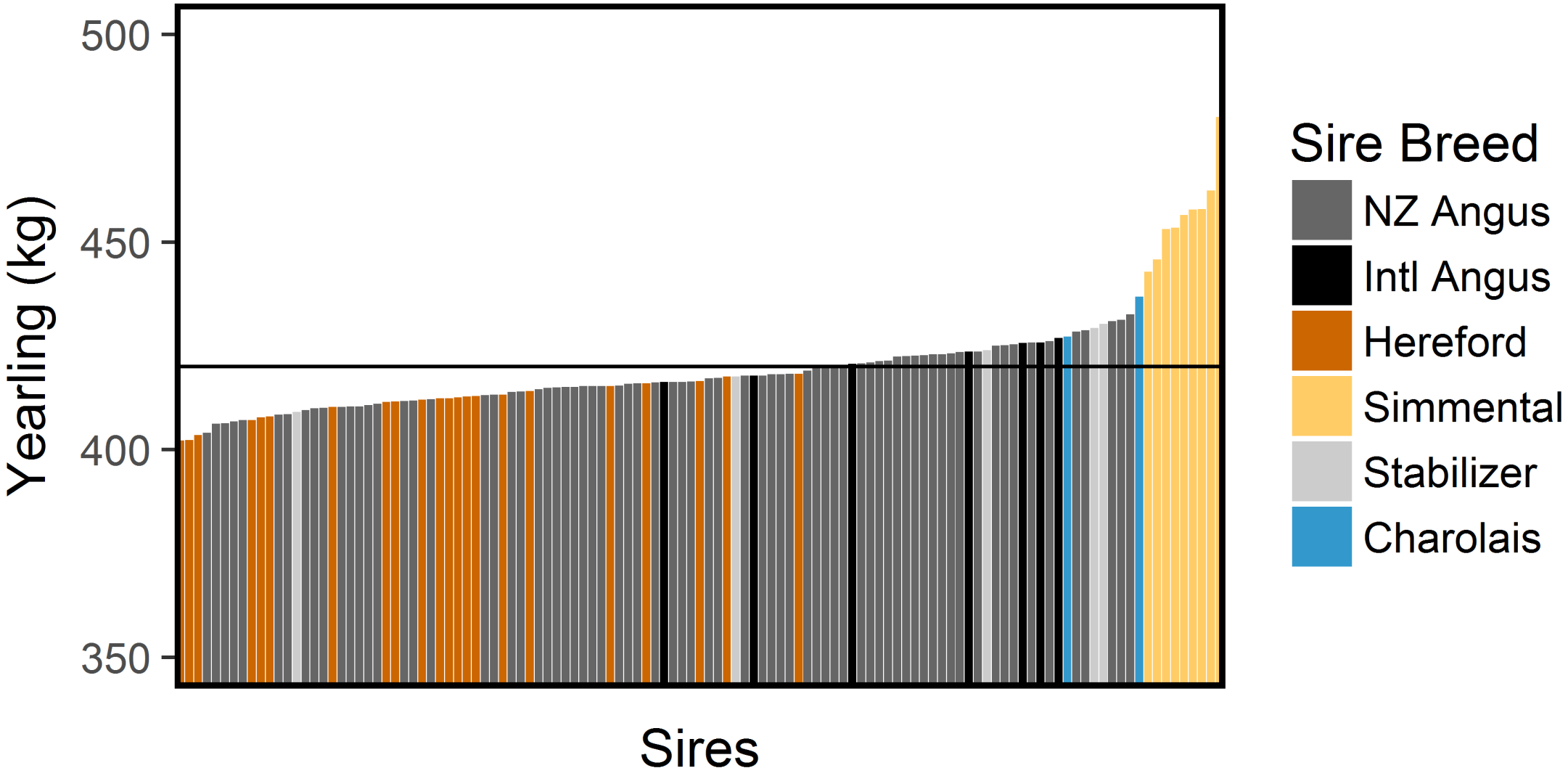
- How much sire variation are we seeing in the traits?

- How much value is created? (No results on this yet)

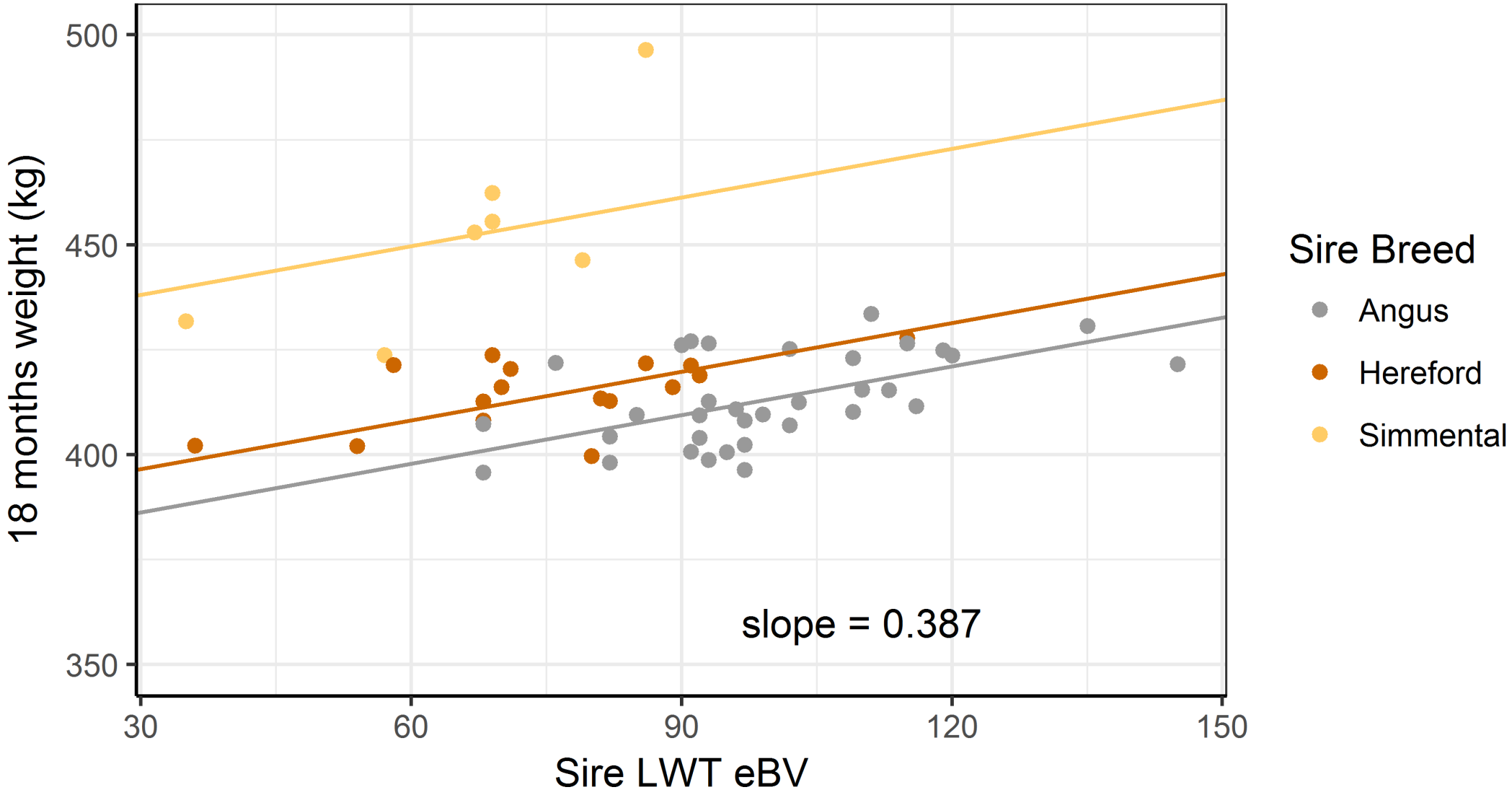
Sire variation in commercial herds

Trait	Heritability
Weaning weight	21%
Yearling weight	30%
18-month weight	32%
Scanned EMA	33%
Scanned Rib Fat	25%
Scanned P8 fat	30%
Scanned %IMF	22%
Heifer Days to Conception	9%

18-month weight



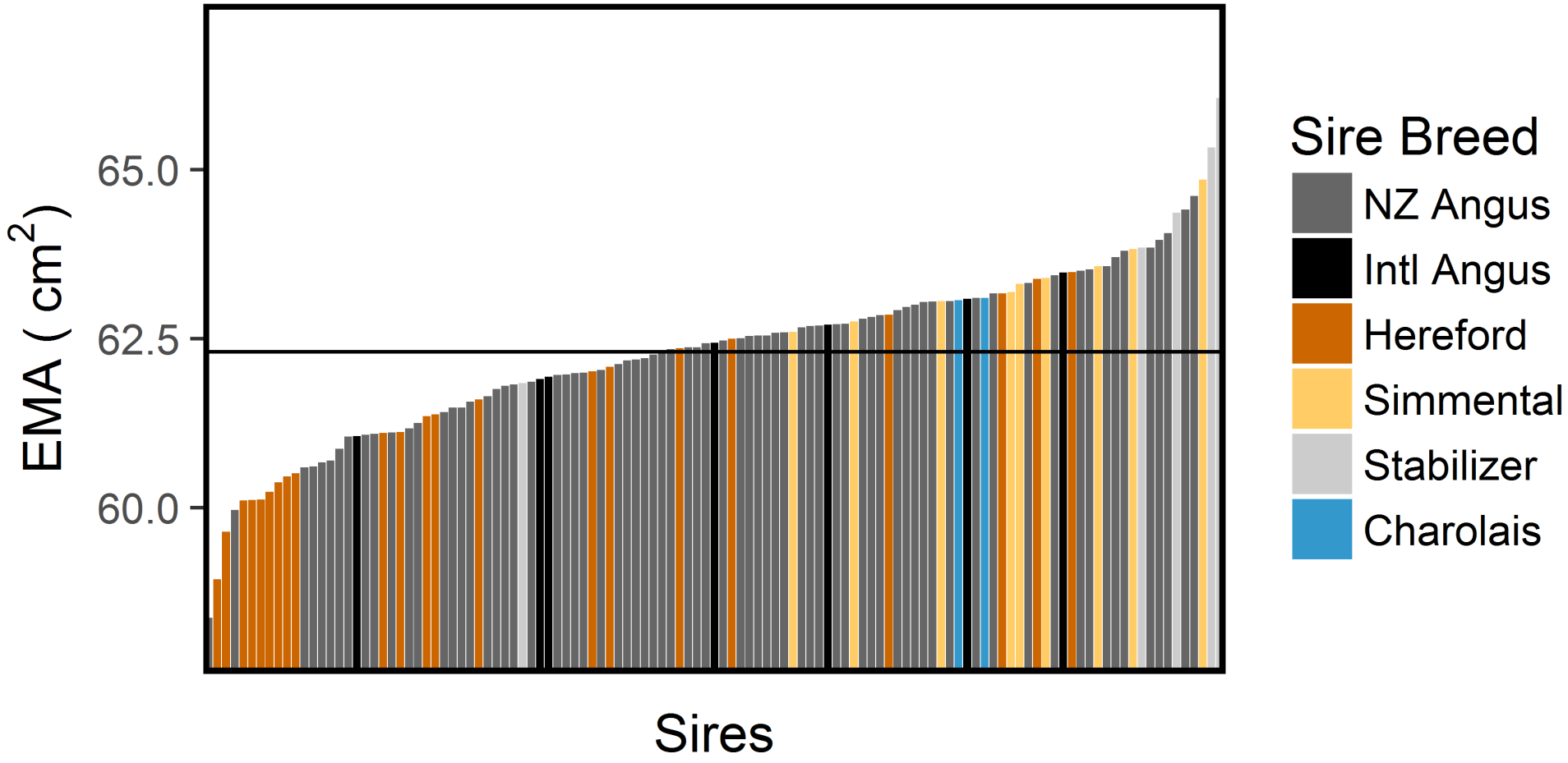
18-month weight



Carcass Traits (preliminary)

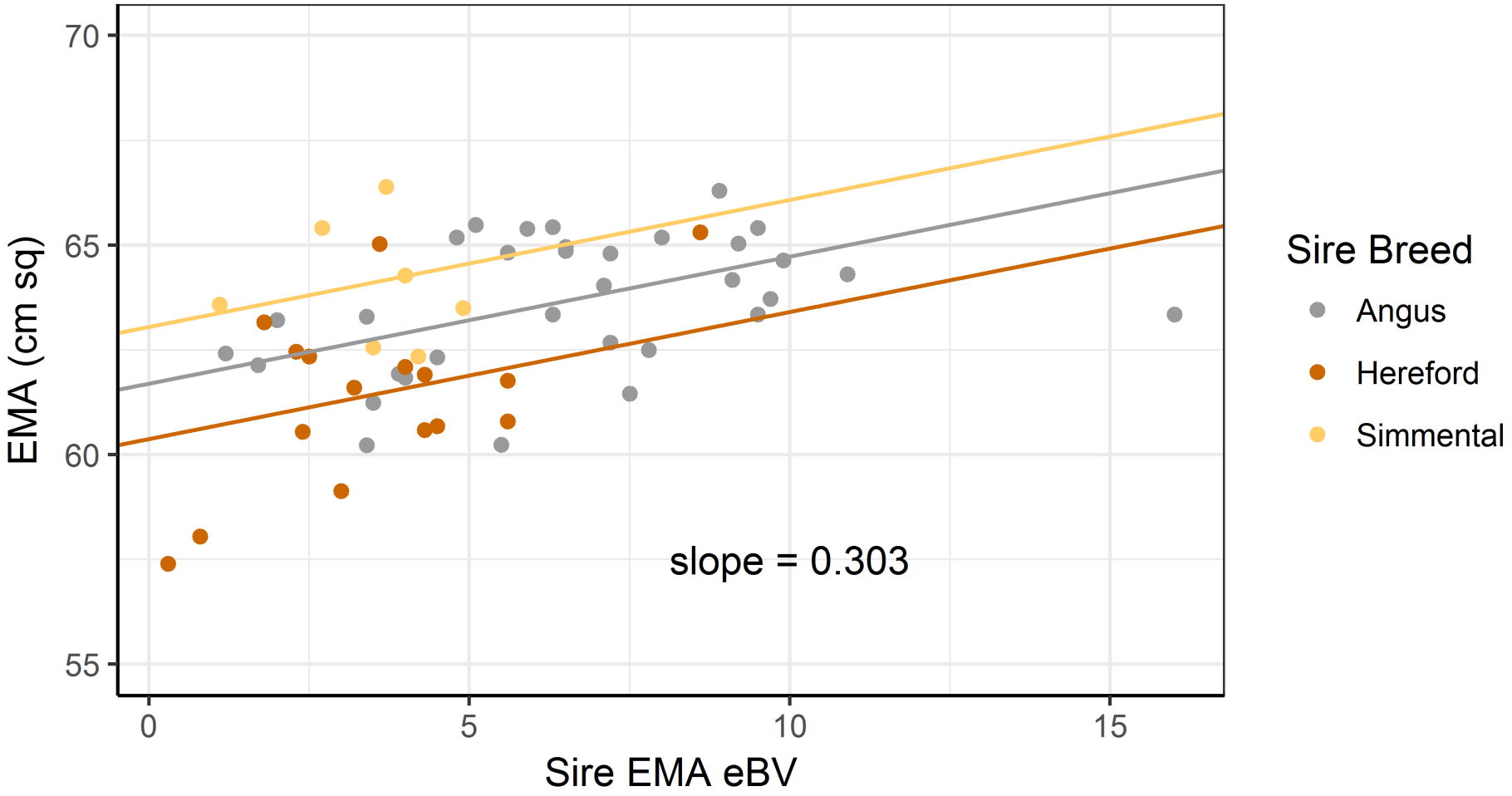
Eye Muscle Area (cm^2)

Adjusted for sex, age, lwt, mob, sire and heterosis



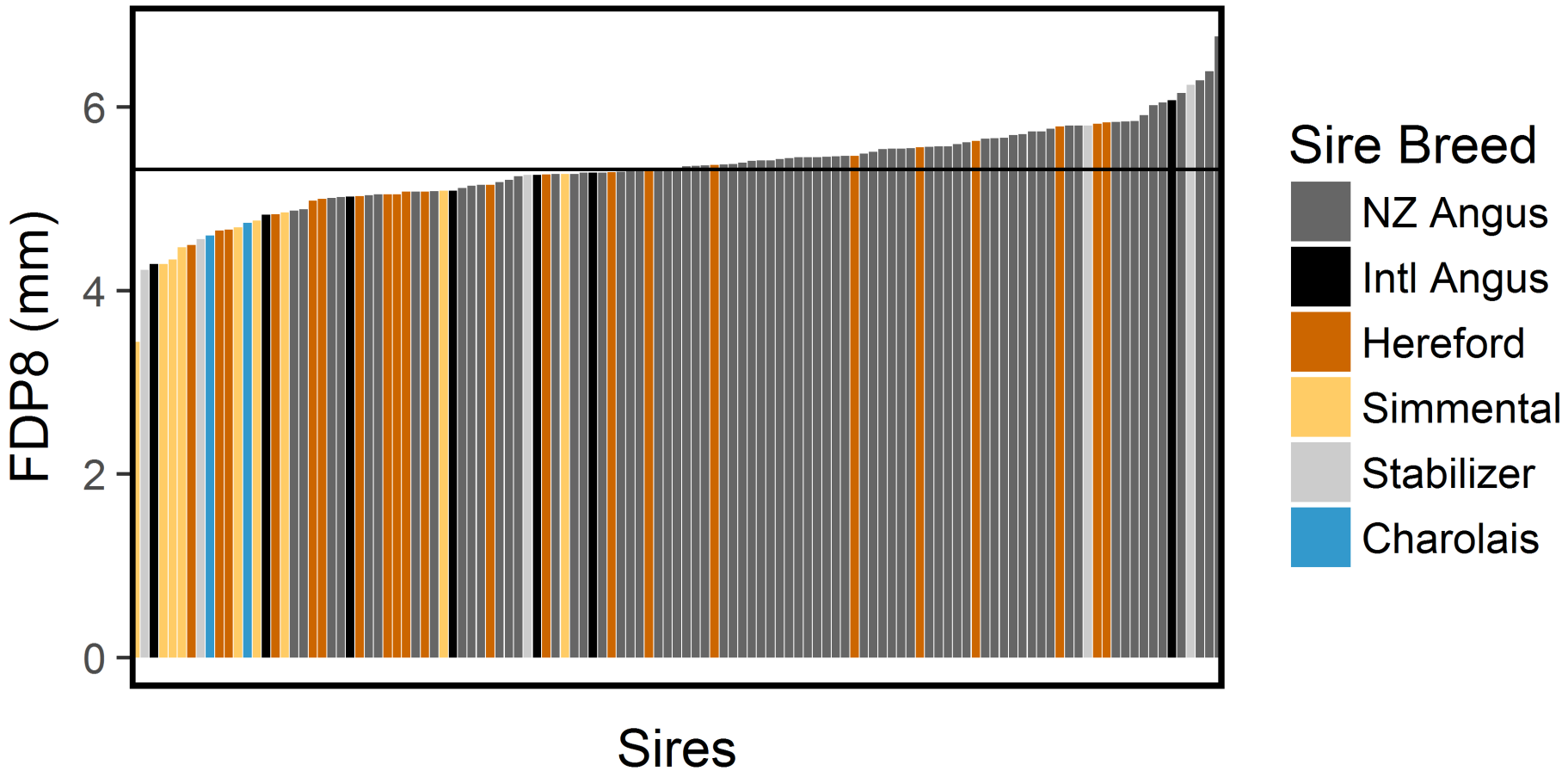
Eye muscle area vs Sire EMA eBV

Adjusted for sex, age, lwt, mob and sire breed



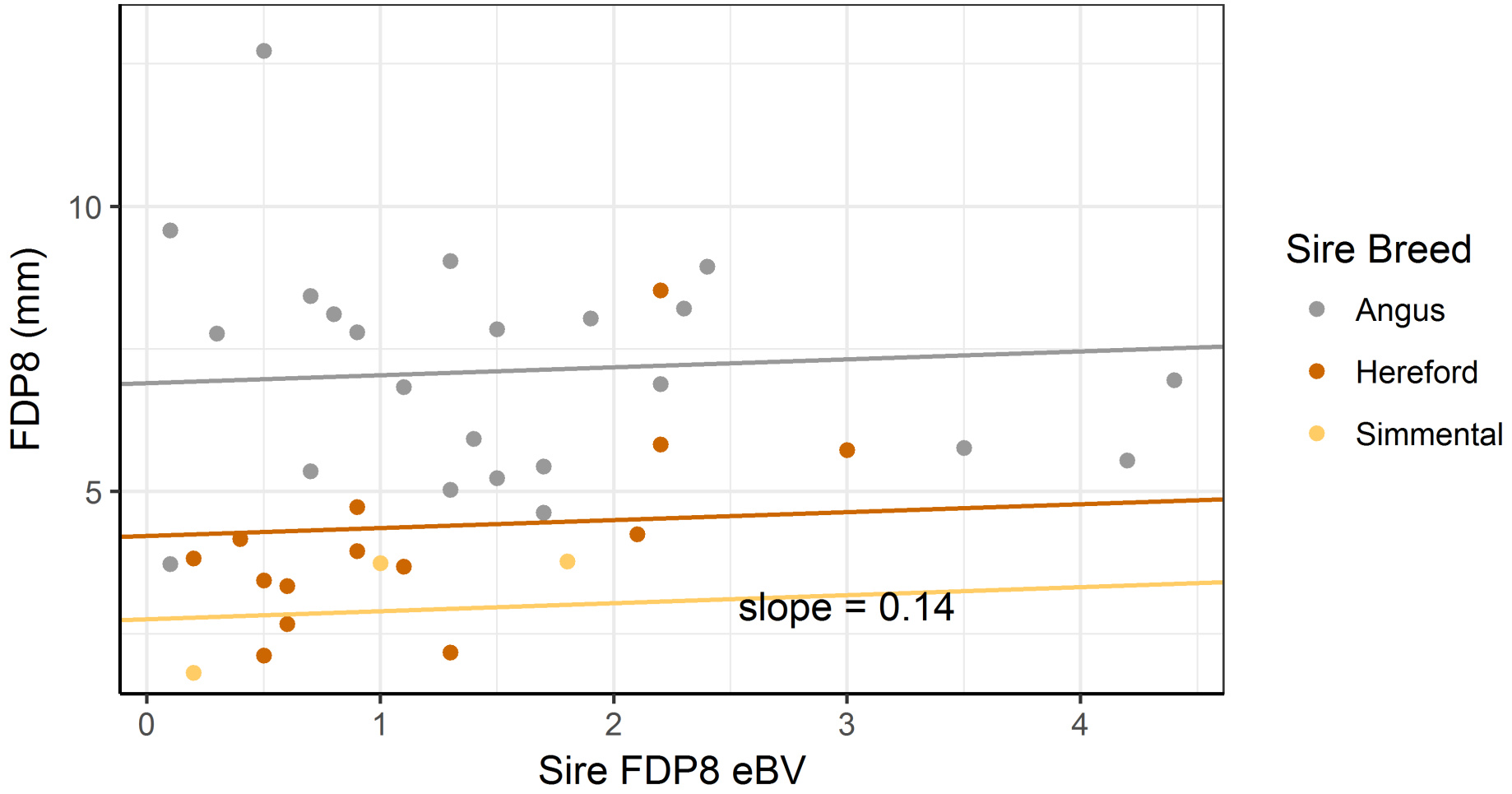
Fat depth over the P8 site on the rump (mm)

Adjusted for sex, age, lwt, mob, sire and heterosis



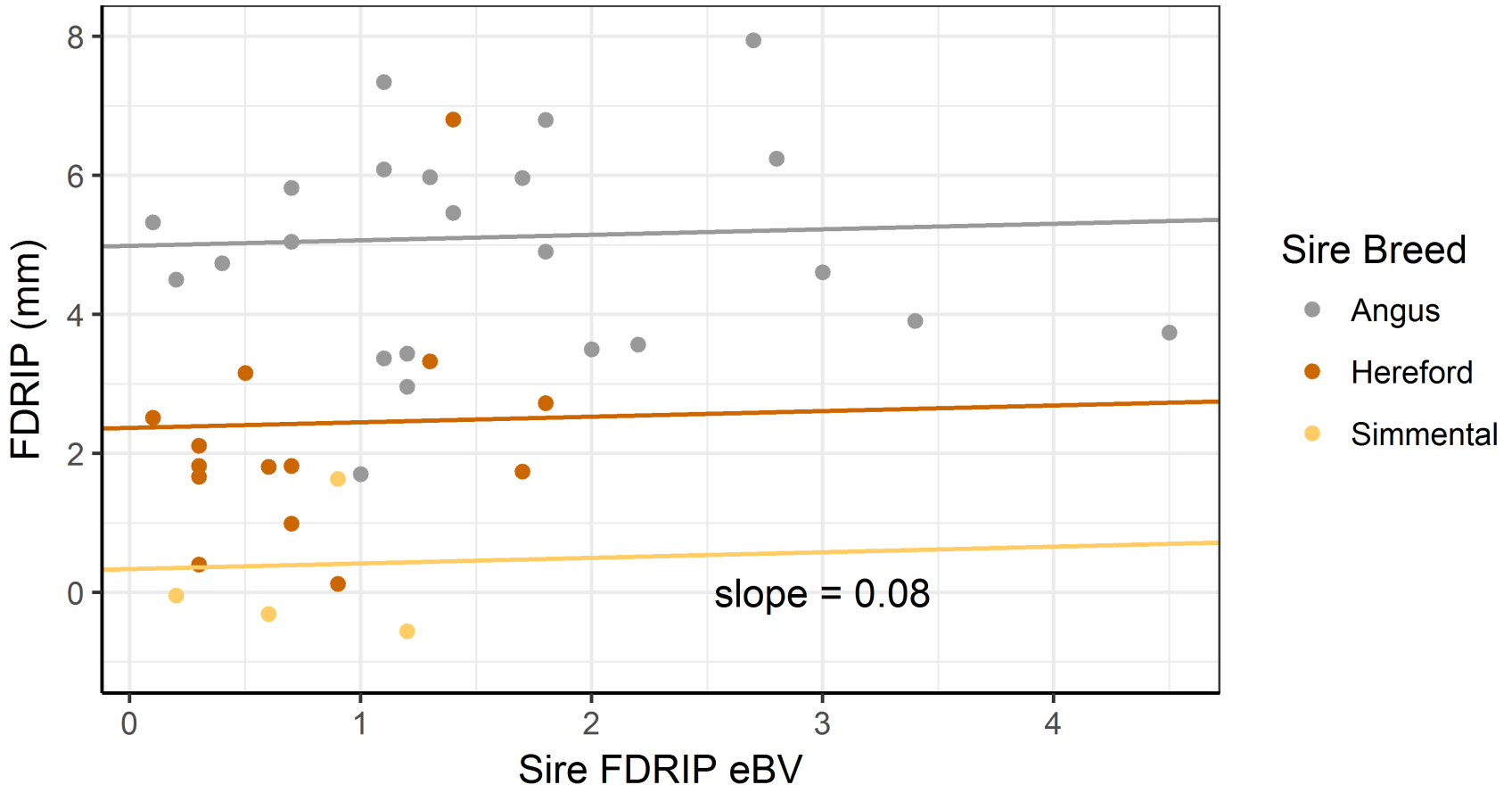
Fat depth over the P8 site on the rump vs Sire FDP8 eBV

Adjusted for sex, age, lwt, mob and sire breed



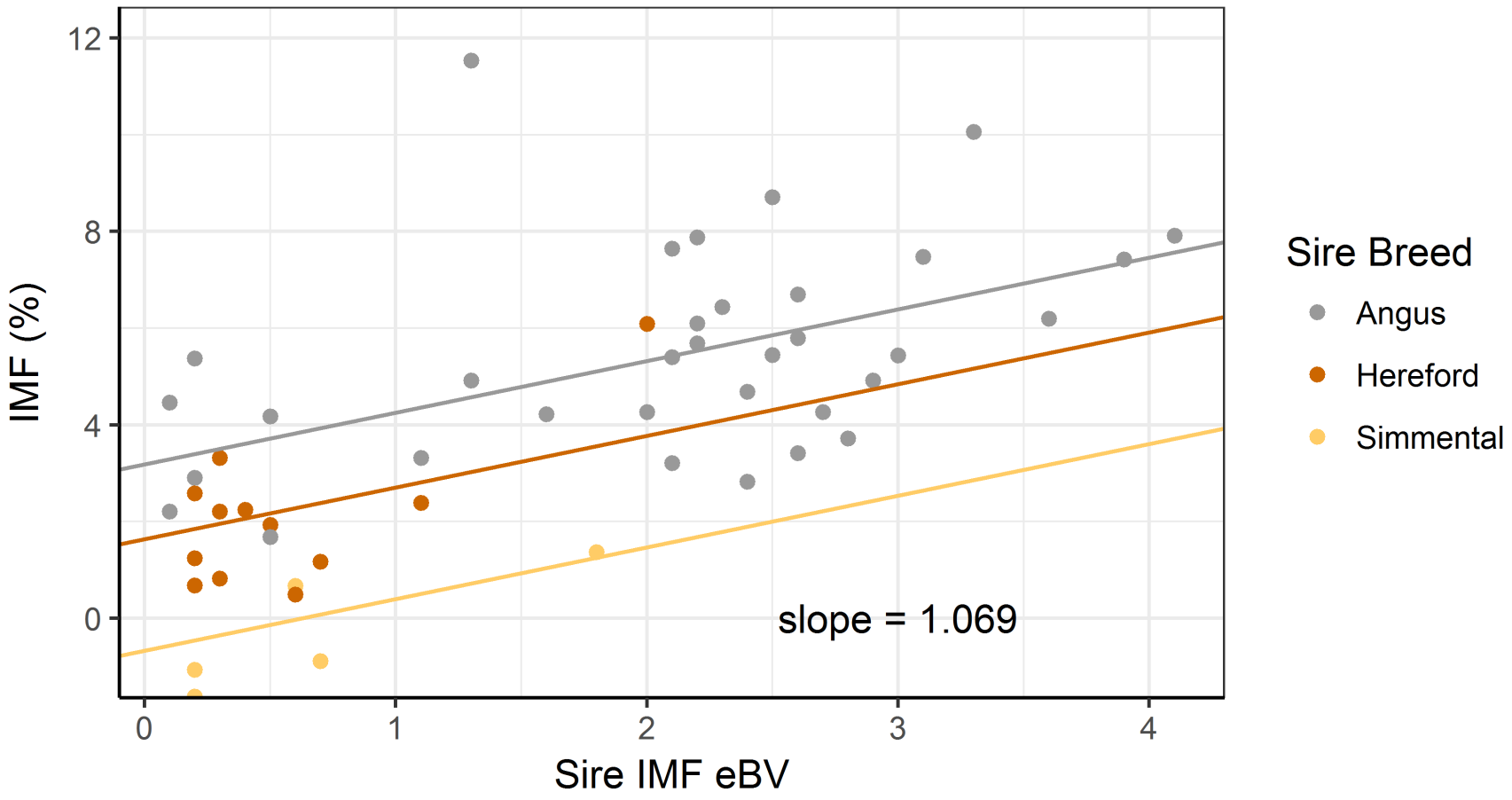
Fat depth over the rip vs Sire FDRIB eBV

Adjusted for sex, age, lwt, mob and sire breed



Intramuscular fat percentage vs Sire IMF eBV

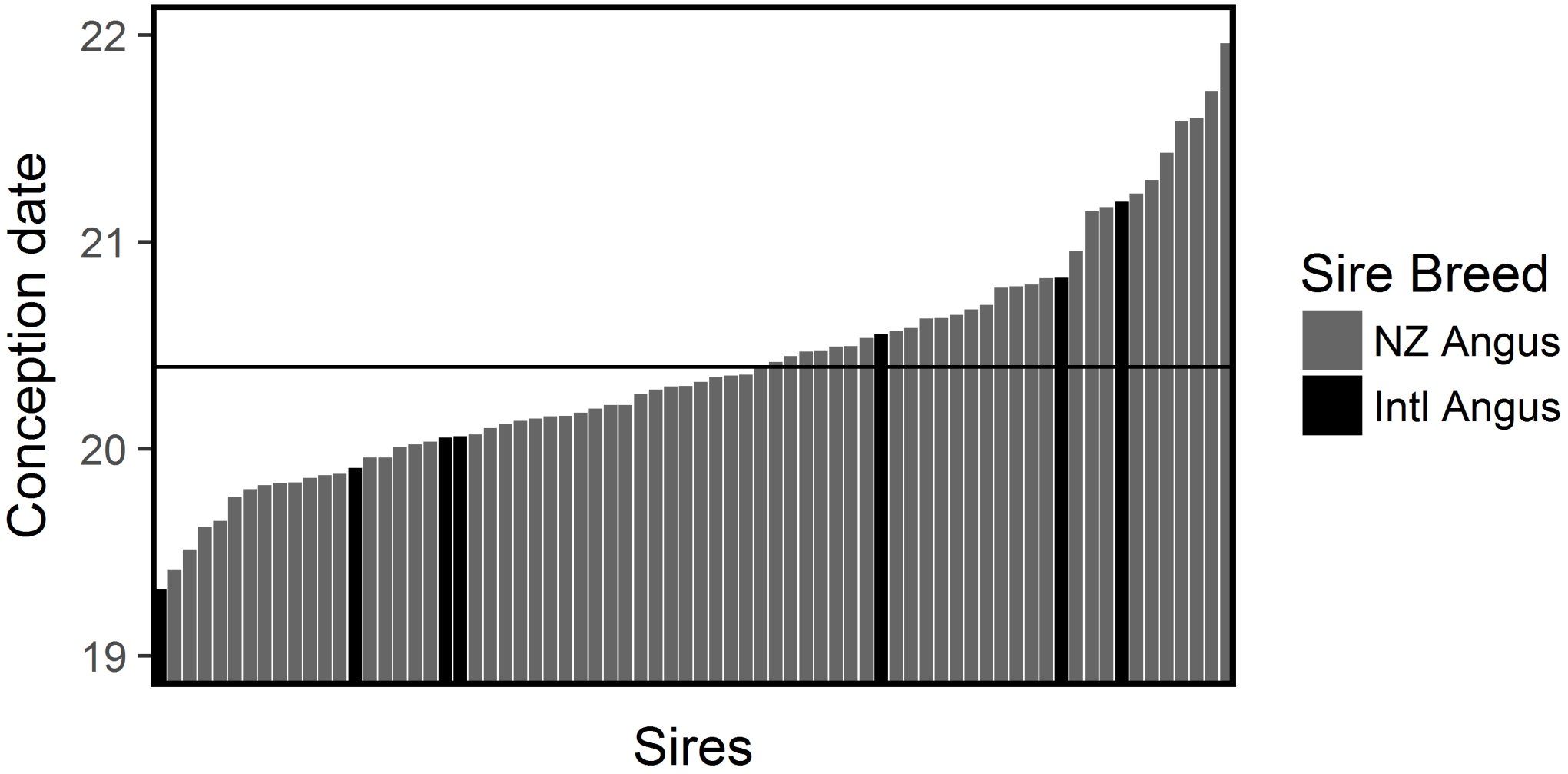
Adjusted for sex, age, lwt, mob and sire breed



Heifer Reproduction

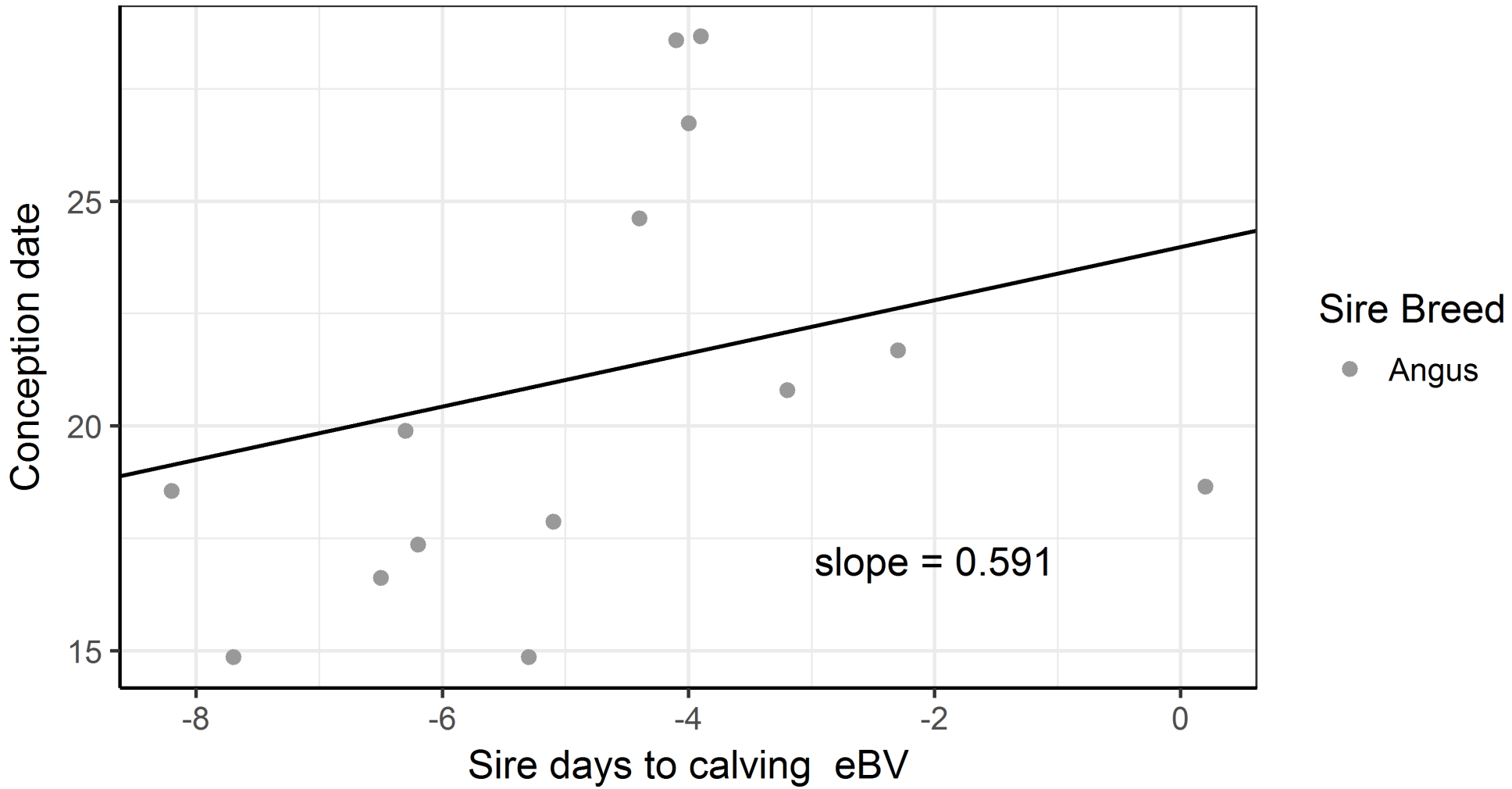
Conception date

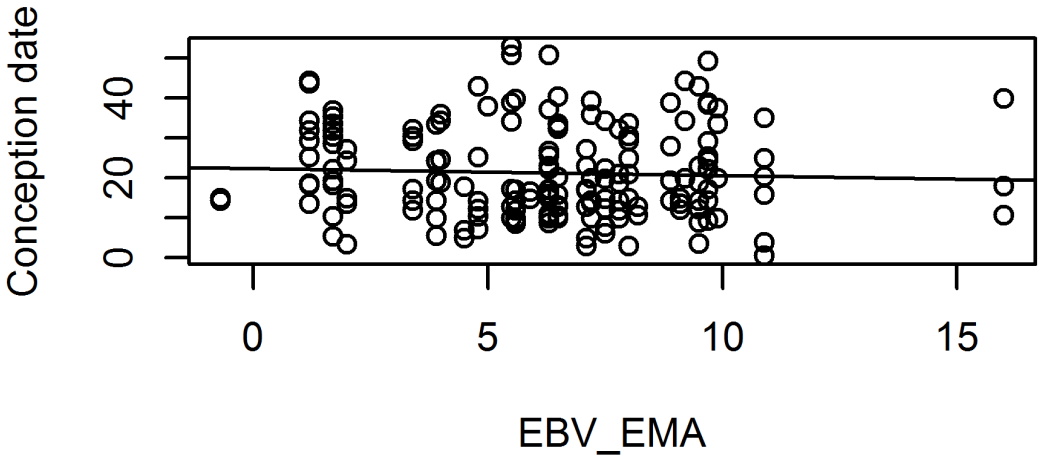
Adjusted for age, mob, sire

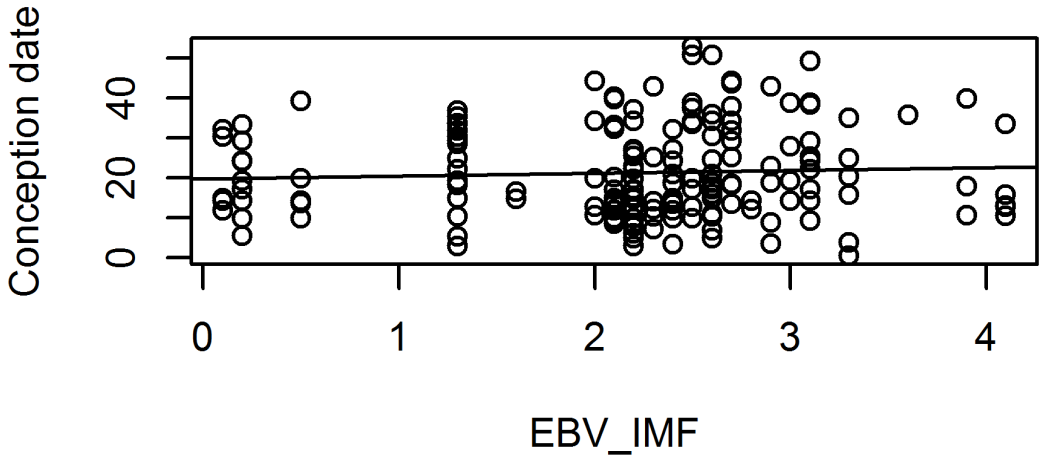


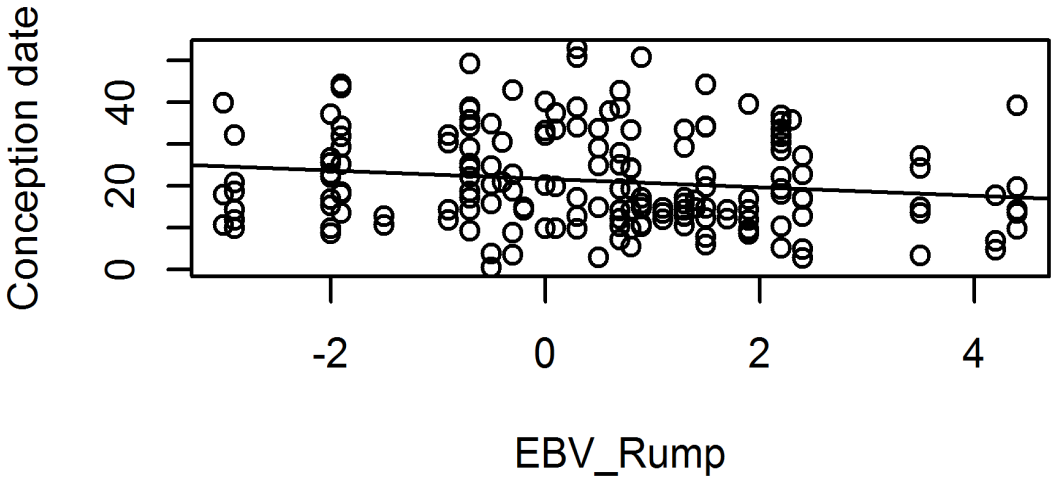
Conception date vs Sire Days to calving eBV

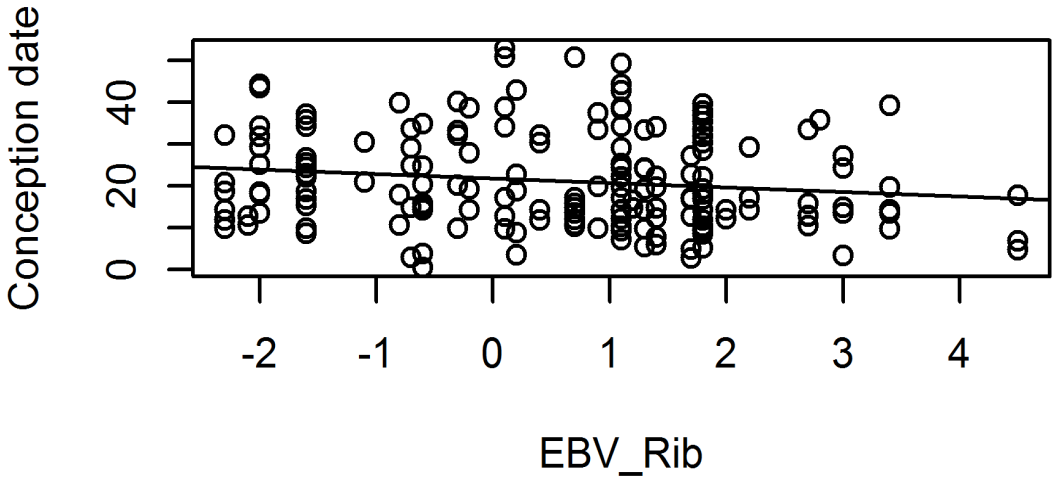
Adjusted for age, mob and sire breed

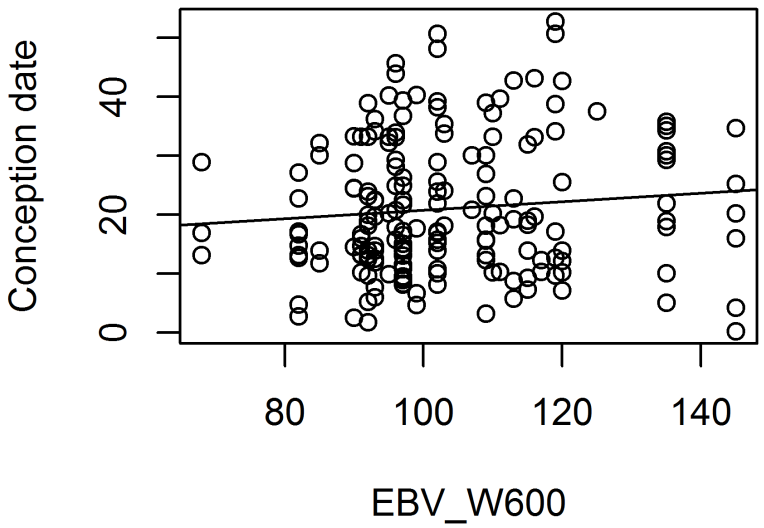


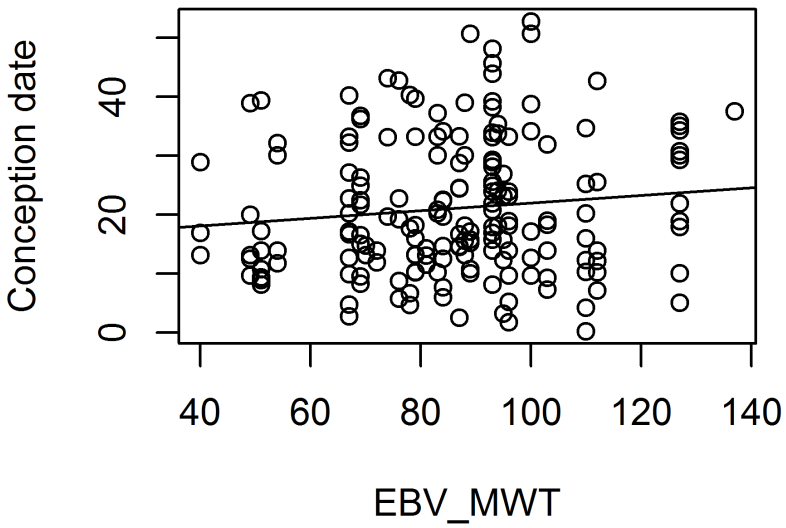

Conception date
0
20
40
0
5
10
15
EBV_EMA

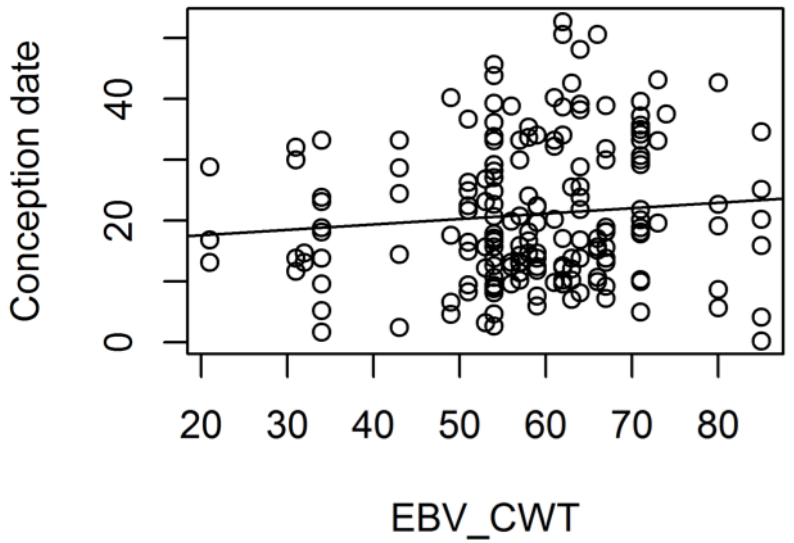

Conception date
0
20
40
0
1
2
3
4
EBV_IMF


Conception date
0
20
40
-2
0
2
4
EBV_Rump


Conception date
0
20
40
-2
-1
0
1
2
3
4
EBV_Rib


Conception date
0
20
40
80
100
120
140
EBV_W600


Conception date
0
20
40
40
60
80
100
120
140
EBV_MWT

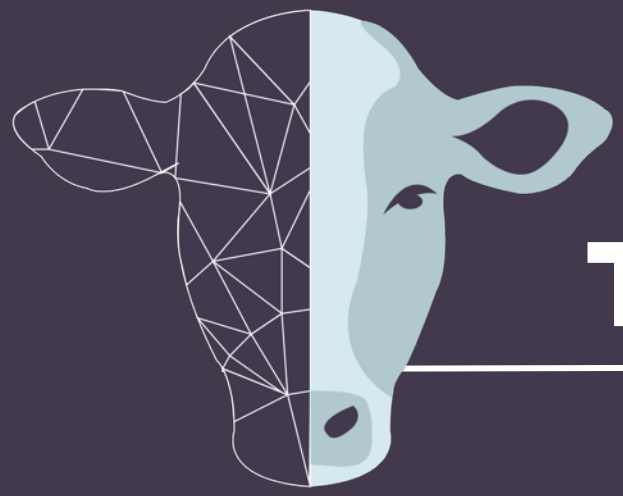

Conception date
0
20
40
20
30
40
50
60
70
80
EBV_CWT

Starting carcase data collection

- First 22 steers killed 2nd May
- 298 average carcase weight
- 21/22 graded Reserve, one just failed on pH
- Will take most of 2017 to kill all cohort 1 animals.

How will information be released?

- Information on principles
- Sire performance summaries
- Made available to Breedplan



Thank you.

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