

North York Moors Swaledales

Tim Dunn, Chairman

Who am I?



Why?

- Criticism of Mule
- Blame lying with Swaledale
- Poor carcass
- Need to identify best performing rams based on
- growth & carcass



Breeding objectives of NYM project

- Identify Swaledale sheep with better carcass (and growth) traits
- Develop datasets for Swaledale sheep sector that can be used in evaluations
- Challenges:
 - Traditional phenotypic selection
 - Exclusion of AI
 - Data collection in hill environment
 - Cost

What we did?

- Single sire mating
- Full Signet recording including ultrasound scanning
- Selection of lambs followed to slaughter
- Primal dissection on small numbers of carcasses



Breeding results

Hill Index what is involved?

- Growth (8 week weight and scan weight)
- Muscle depth
- Fat depth
- Litter size reared
- Milk (maternal ability)

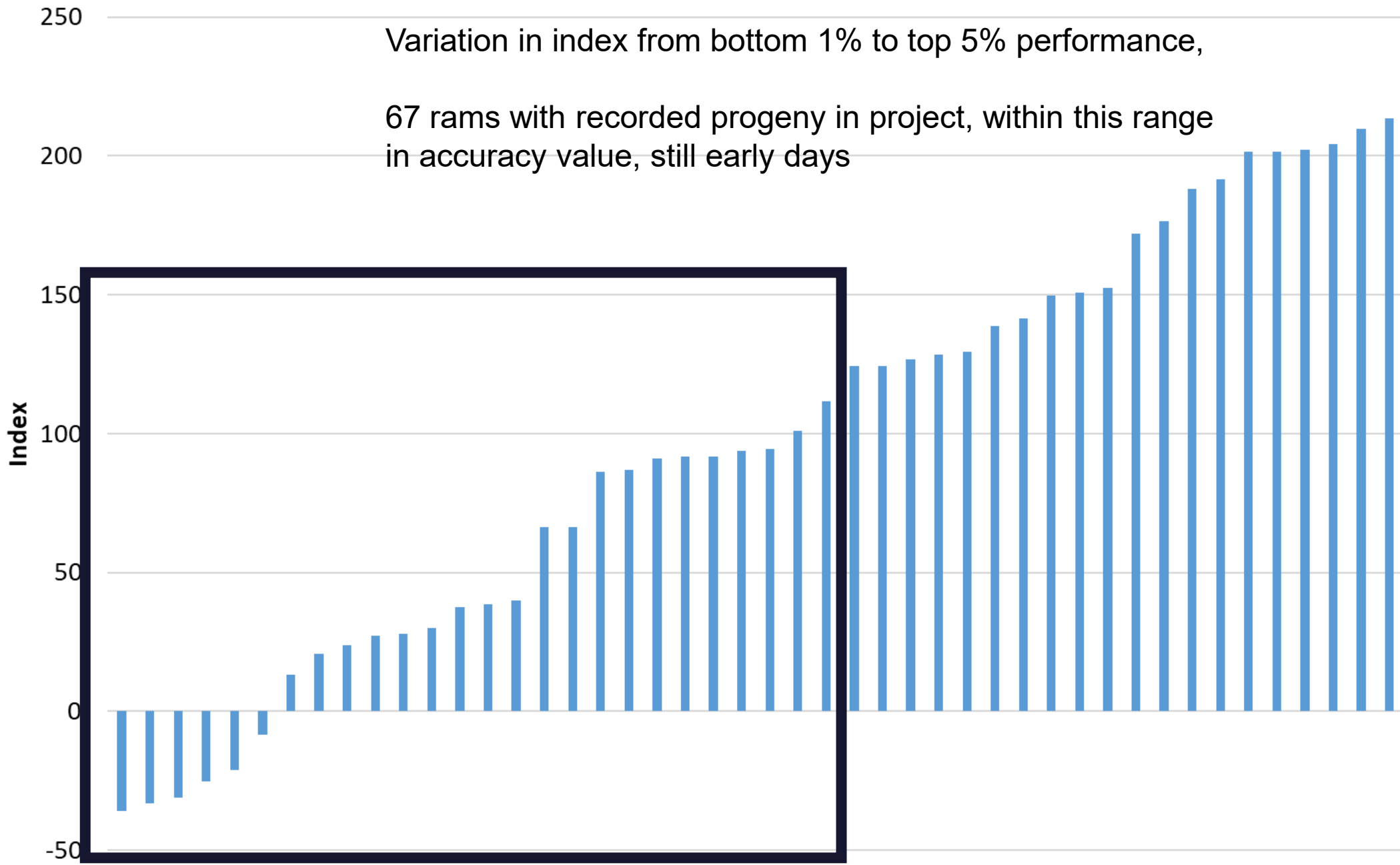
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 **Priority**

Project rams accuracy > 50%

Variation in index from bottom 1% to top 5% performance,
67 rams with recorded progeny in project, within this range
in accuracy value, still early days



- 2017
 - 4 farms
 - ~700 lambs measured
- 2018
 - 5 farms
 - ~720 lambs measured
- 2019
 - 6 farms
 - ~840 lambs measured



Is the Index working? Farm A, 2018 data

High Ram – top 5% index

- 95% accuracy
- 16.4kg 8WW
- 131 days @ scanning
- 23.1kg scan
- 14.7mm muscle

Low Ram – bottom 1% index

- 93% accuracy
- 14.4kg 8WW
- 131 days @ scanning
- 20.2kg scan
- 13.2mm muscle

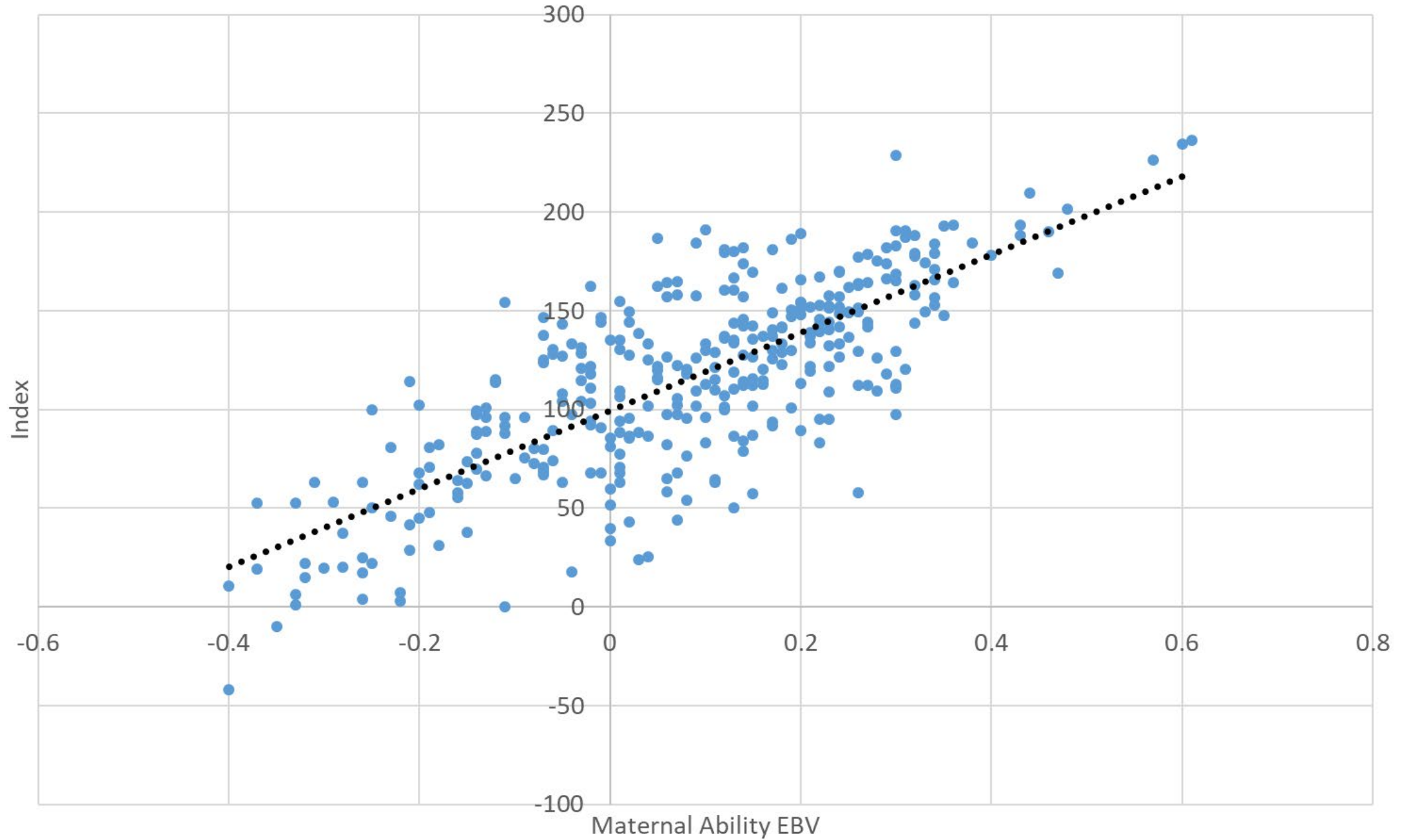
Farm B – 2019 open day lambs

- Ram: MG
 - Low index
 - Weight @ scan: 33.9kg
 - Loin depth: 17.81mm
 - Loin fat: 1.65mm
- Ram: Samson
 - High index
 - Weight @ scan: 36.4kg
 - Loin depth: 19.51mm
 - Loin fat: 2.30mm

Rams had similar number of progeny, similar twin rate and sex split and lambs same age @ scanning

What could it be worth? Extra 2.5kg LW & improved carcass muscularity

2018, Wheldon Data



Plans for the future

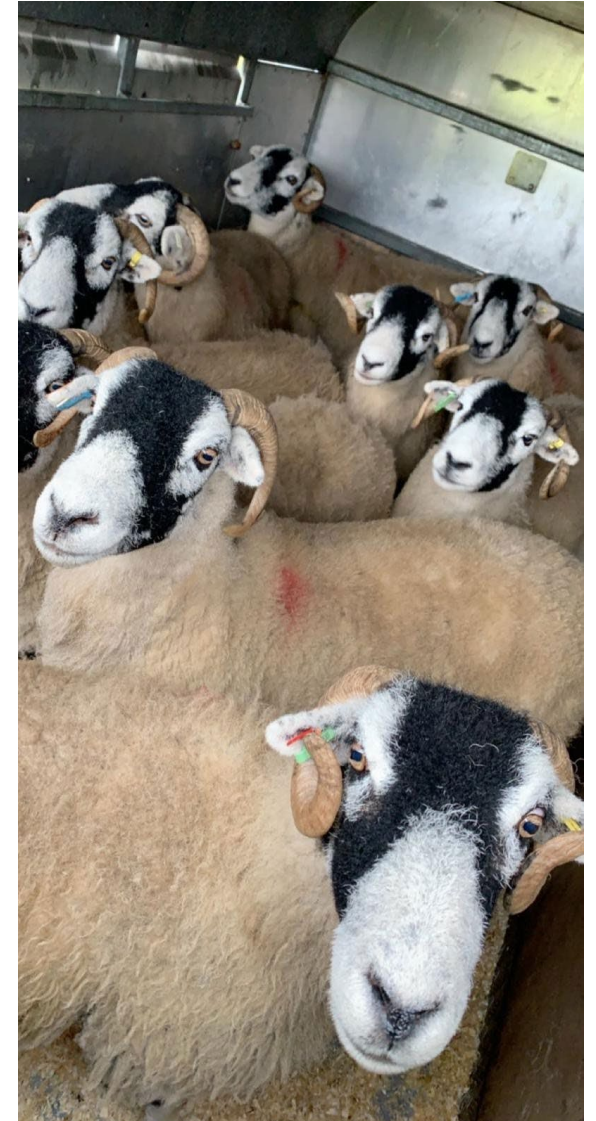
- Continue recording
- Gain more members
- Create bigger pool of tups
- Reduce 'stigma' of performance recording
- Give Mule buyers confidence
- I don't want to be buying blind!

Finishing results

Kate Phillips, Sheep Consultant

Finishing objectives of NYM project

- Do higher growth rates on-farm = faster finishing?
- Do high index rams = highest value carcasses?
- Can we reduce the cost of finishing Swaledales?



Finishing Swaledale lambs

- Not renowned for their fast finishing or carcase quality
- Specialist finishers prefer other breeds as mortality lower and feed conversion better
- Huge stress for hill lambs to move from home to new farm – change of diet and environment
- One finisher bought 500 lambs from one group member
- Took them to heavy weights but cost on average **£44/lamb** to finish (all costs)
- Very slow growth pre-Christmas (34 g/day) but much better (125g/day) post Christmas.

Growth rate by weight band

| Weight (28/9/18) | Number of lambs | Average weight | Average DLWG over first 100 days (g/day) |
|------------------|-----------------|----------------|--|
| 23.2 to 30 | 114 | 27.9 | 68 |
| 30.1 to 35 | 232 | 32.5 | 30 |
| 35.1 to 40 | 127 | 36.9 | 16 |
| 40.1 + | 22 | 42.4 | -17 |

In the initial finishing phase it appears that the lighter lambs grew faster – with DLWG declining with increasing initial weight

LOT:

FBN: UK 0 122377 09344

Sire: UNKNOWN -

-

DOB: 15/03/2016

Scanned: N

Dam: UNKNOWN -

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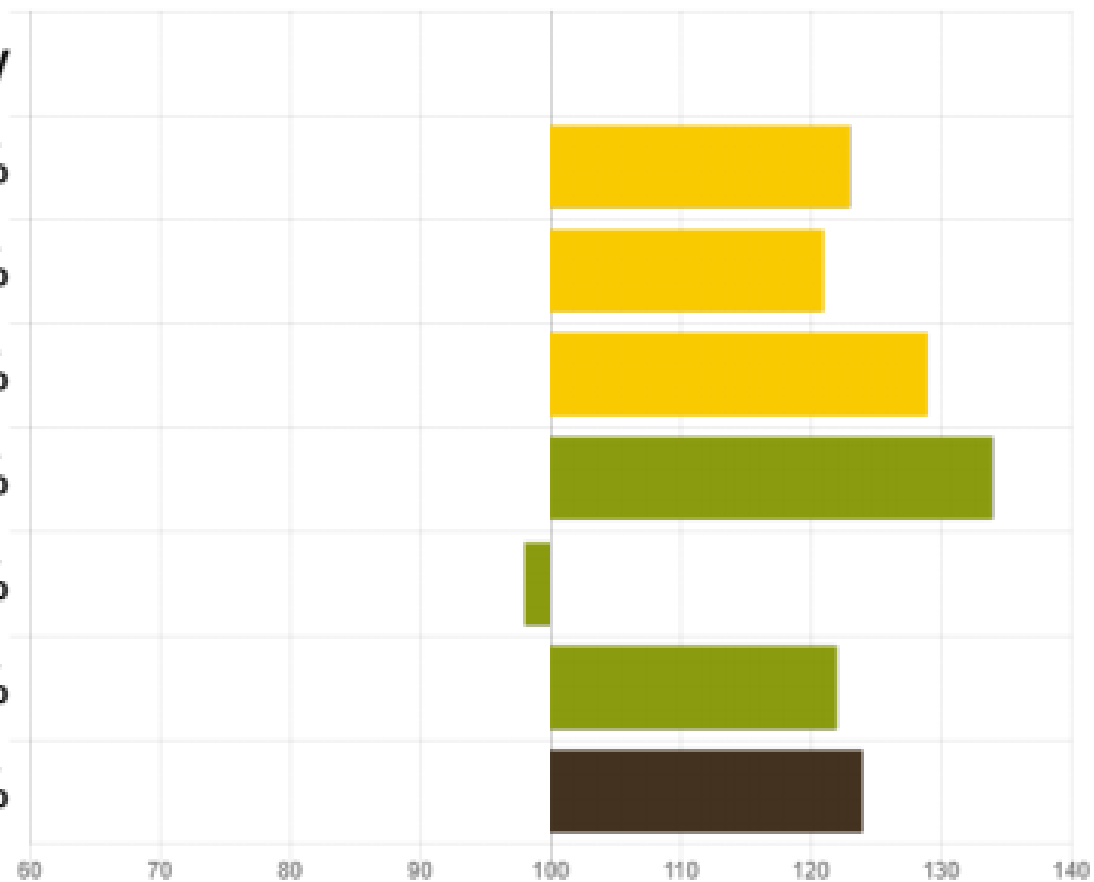


Analysis date: 22/10/2019

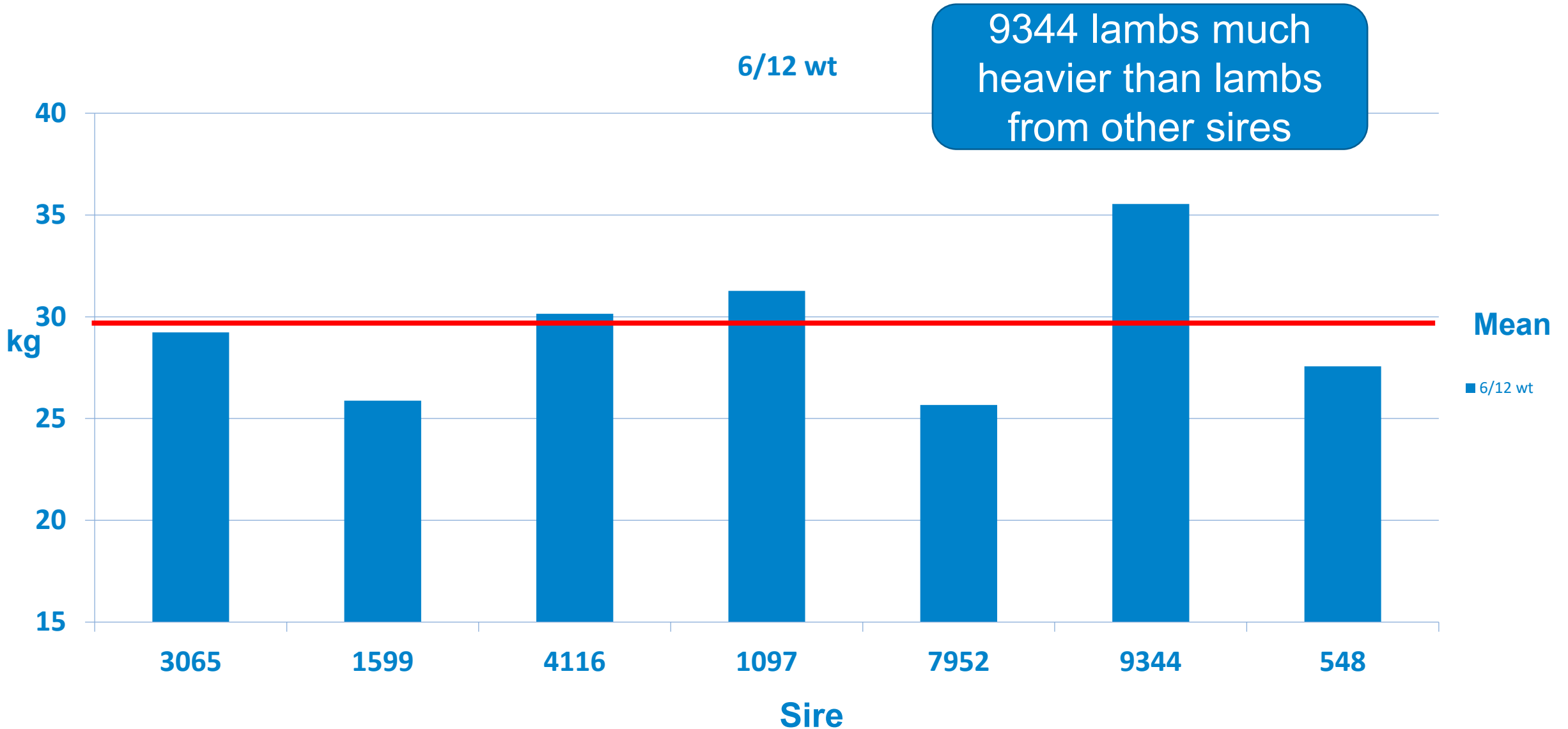
Below Average

Above Average (Superior)

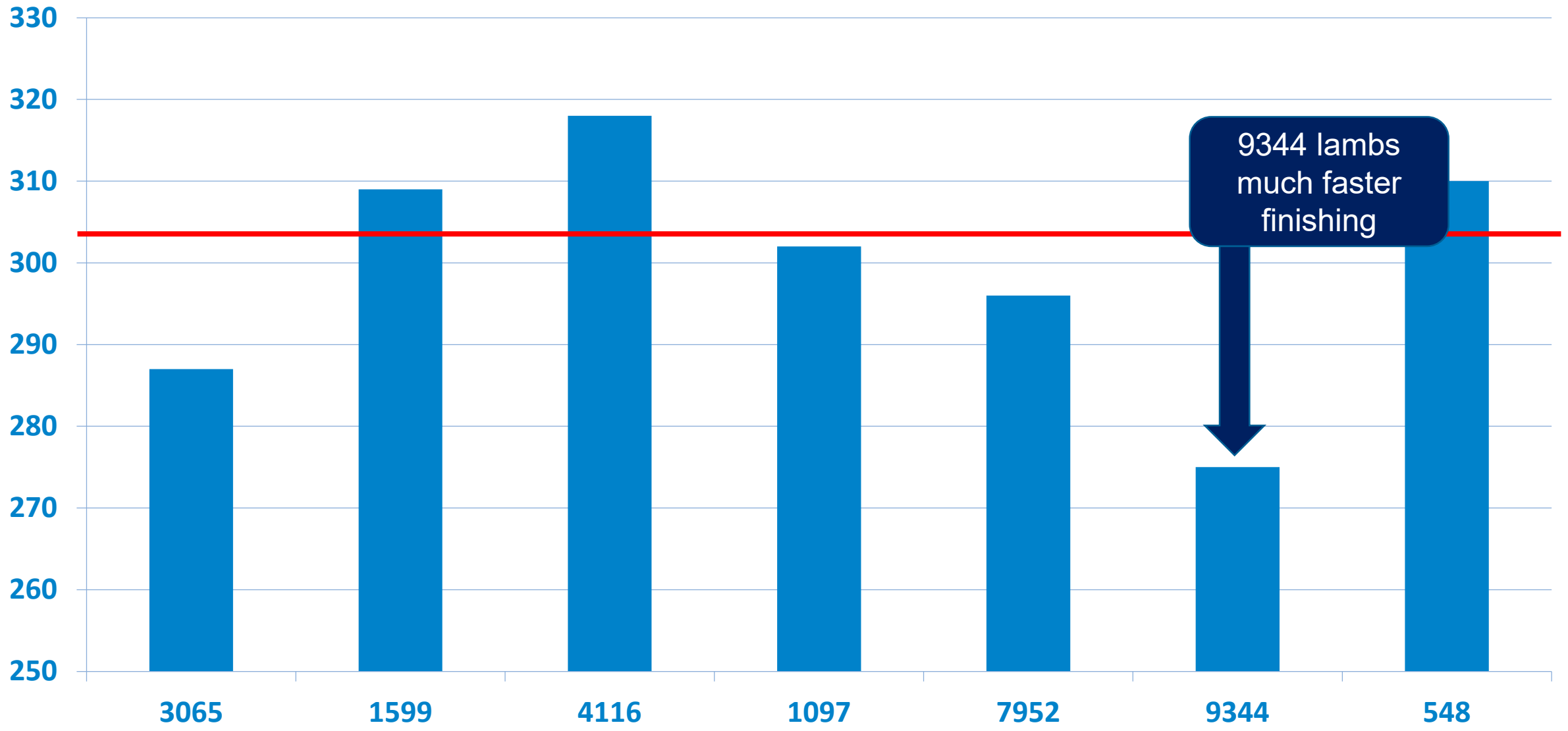
| | | EBV Accuracy |
|-------------------|-------|--------------|
| Eight Week Weight | 1.13 | 61% |
| Litter Size | 0.08 | 21% |
| Maternal Ability | 0.59 | 67% |
| Scan Weight | 2.14 | 63% |
| Muscle Depth | -0.08 | 70% |
| Fat Depth | 0.22 | 73% |
| Hill Index | 204 | 66% |



Finishing phase start weights (Dunn)

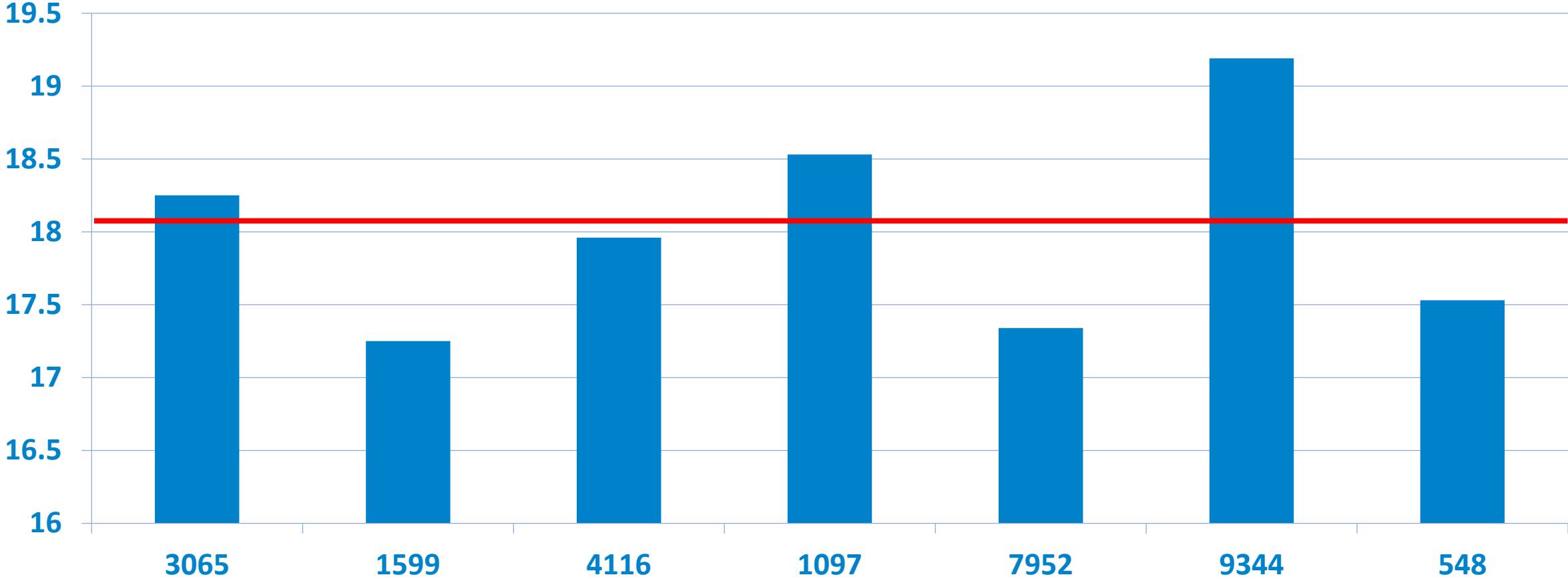


Days to slaughter

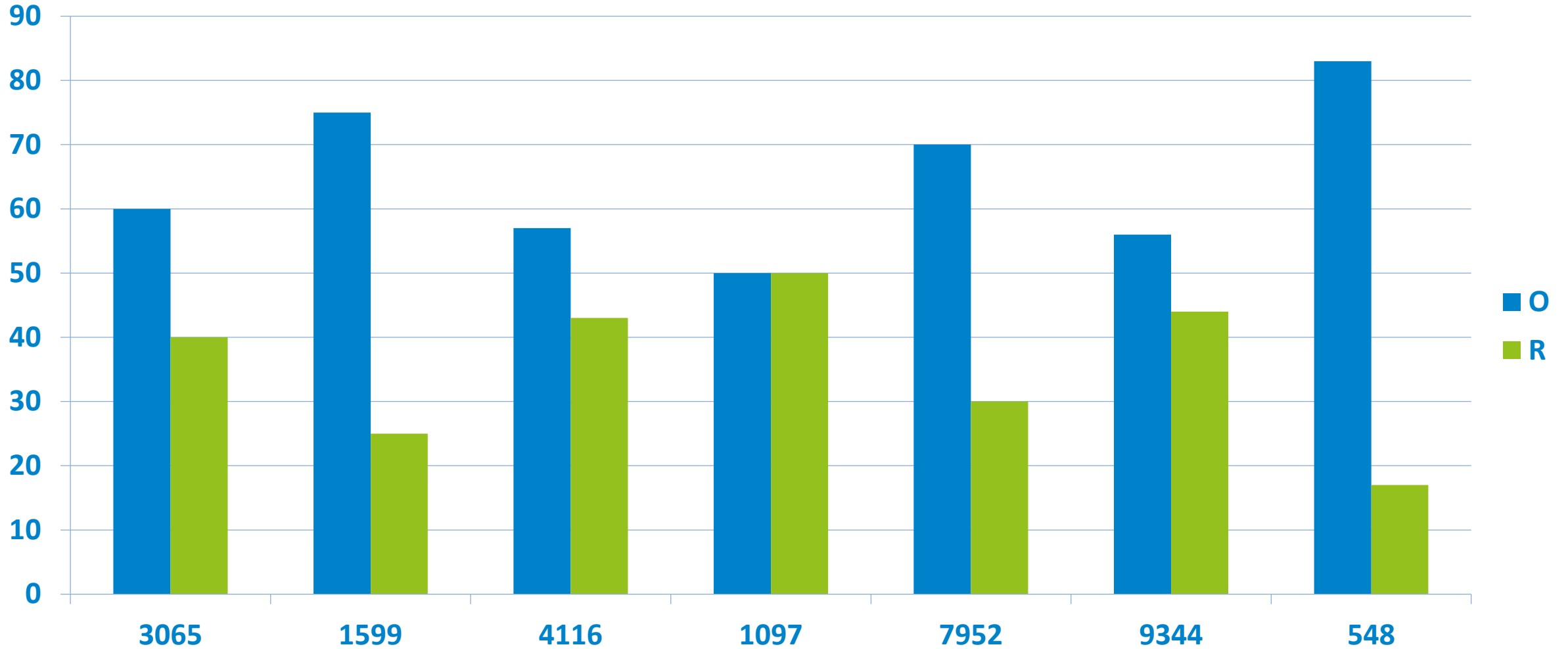


Carcase weight (kg)

**9344 lambs
much heavier
carcasses**



Carcase conformation (% of lambs)



Breck House Conclusions

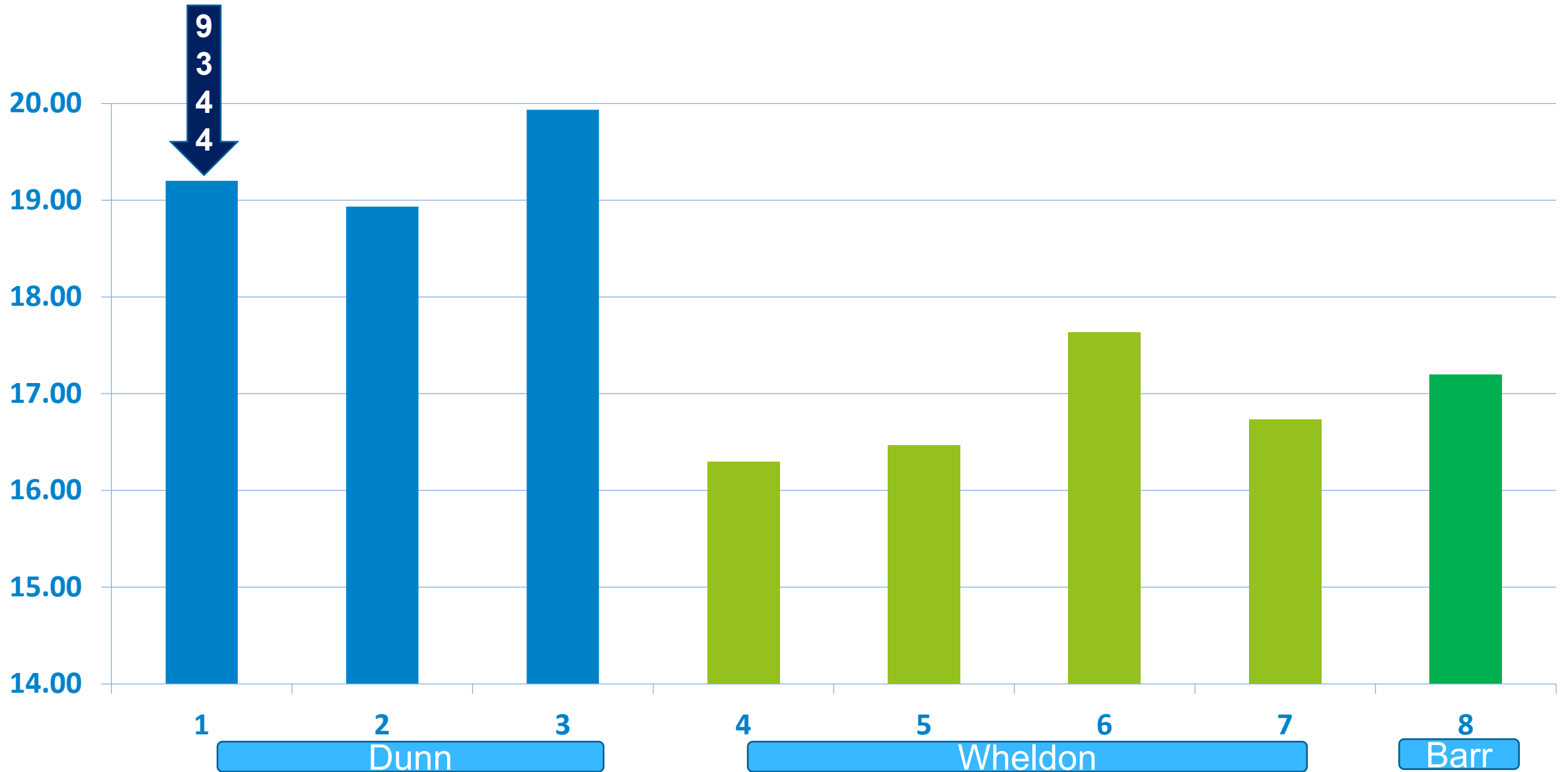
- Lambs sired by 9344 stand out
- From a lamb finishing perspective they are:
 - Heavier at birth – despite high litter size
 - Grow faster
 - Finish quicker
 - Have the heaviest carcasses
 - A good proportion of R conformation lambs



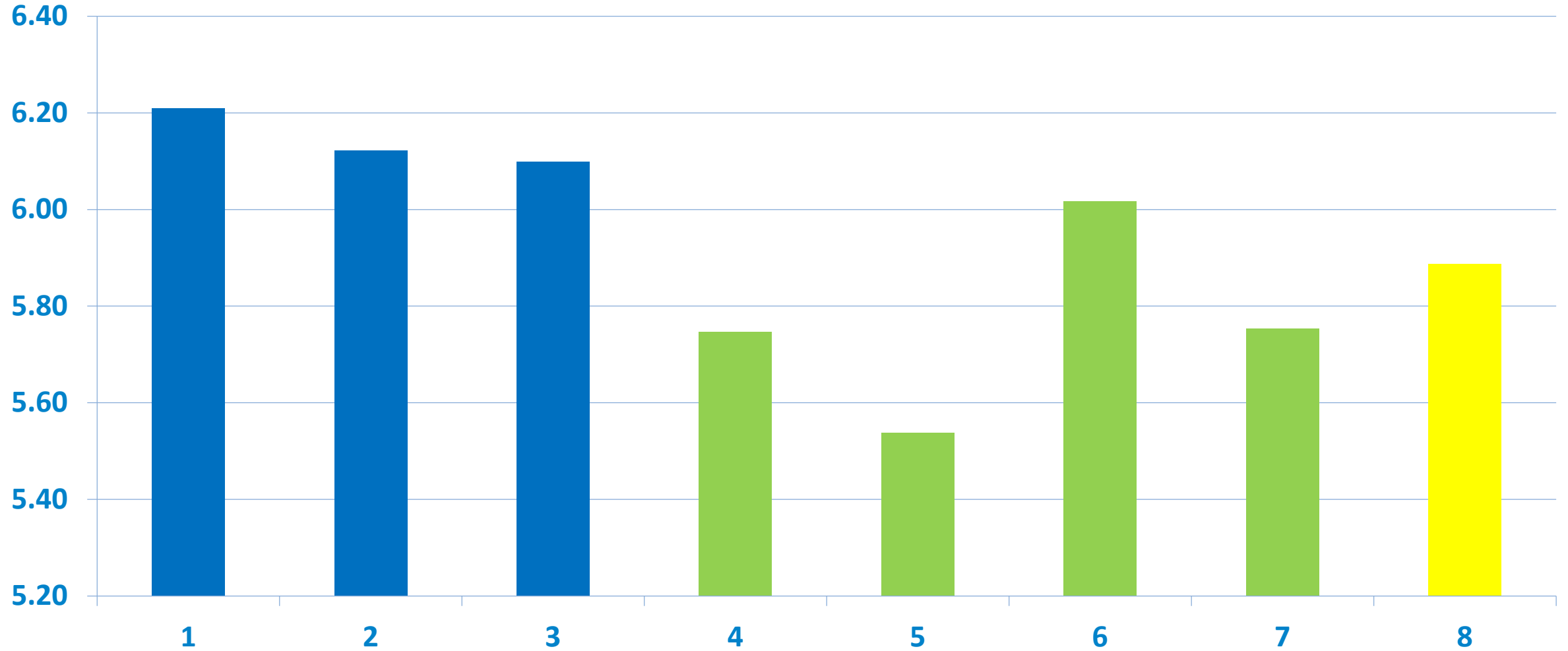
Lambs taken to Dunbia Preston

- 226 lambs in total from 4 producers
- 24 prime lambs selected for dissection
- Carcasses cut up into primal joints
- Weighed and measured

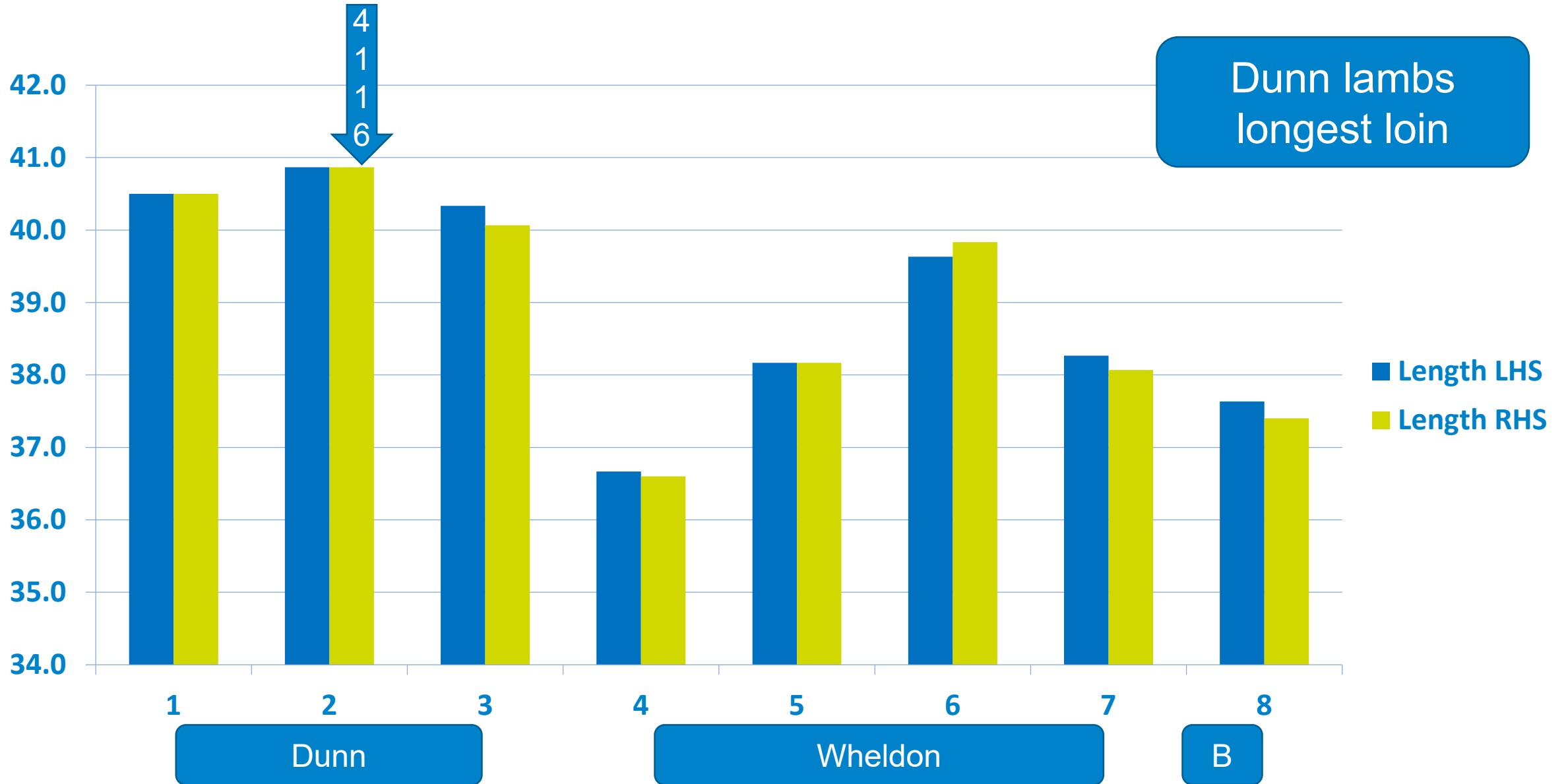
Cold carcass weight by sire



Whole legs weight (kg)



Loin length (cm)



Primal dissection and finishing results (in brief)

- Many Swaledale lambs can meet commercial specification
- Big differences between sires – loin, leg etc
- Heavier weights tend to be fatter
- Wide range of days to slaughter/cost of finishing