How different are these BIN sires for reproductive performance of their daughters?

David Johnston, AGBU
What is female reproductive performance?

- heifer becomes pubertal
- conceives as a maiden (early)
- hold pregnancy
- live calf born
- calf weaned

- resume cycling while lactating
- conceiving while lactating
- hold pregnancy
- live calf born
- calf weaned

......and again and again (lifetime)
2016 BIN data

• Very good season
  ➢ high rates 90+ % maidens
  ➢ 80+ % 1\textsuperscript{st} calf cow re-breed
  ➢ but not all sires

• High calf losses
  ➢ reduced re-breed cow numbers

• Wet rebreed (and preg as maiden)
2016 BIN data

- Current data not complete
  - weaning preg test yet to come
  - different PT dates at Banana vs Barranga

- not all sires presented in graphs
  - some get additional Rnd 3 progeny

- Critical rebreed on Rnd 3 bulls to complete project
ANALYSES: Data

Ovarian scanning data

- maidens and wet 1st calvers

If foetus observed,

- feotal age  = 1, 2, 3, or 4 months

If no foetus,

- CL present (could be just preg < 1 month)
- if no CL, not pregnant and not cycling

Note: not ongoing trait definition ...just for now!
ANALYSES: Statistical model

Data pooled
across locations, origin (BEL) & years

Analysis
accounts for location, origin and year
adjusts for differences in cow age (not much)

Results
sire adjusted means for daughter performance
different daughter numbers (different accuracy)
Sire means: heifer pregnancy (updated)

More daughters pregnant and earlier = shorter DC
ROUND 2

Sire means: heifer pregnancy (updated)

- Rockley Manchester
- Lancefield Nitrate
- Raglan Mr Joshua Hazelton B Karuza

More daughters pregnant and earlier = shorter DC
Sire means: heifer pregnancy - NEW

More daughters pregnant and earlier = shorter DC
Sire means: Wet 1st calf cow pregnancy - NEW (Ndaug >= 7)

More daughters pregnant and earlier = shorter DC
Sire means: Wet 1st calf cow pregnancy

(>= 10 daughters across rnd 1 & 2)

SHA ANN WISE 'N' UP
ELROSE DONNY
LANC EFIELD M RIPTON
MOGUL YALUMBA

More daughters pregnant and earlier = shorter DC
Sire days to calving EBV (March 2016) (predicts expected differences in progeny performance)

shorter DC = more pregnant and earlier, updated with more data
So were there sire differences?

Could you used this in your herd?

Would you like to know more sires?
SUMMARY sires snapshot

Maiden heifer performance
- Batandra Toby
- Rockley Manchester
- Lancefield Madigan Manso
- Lorimar Park Exodus

Wet re-breed
- Sha Ann Wise ‘N’ Up
- Elrose Donny
- Lancefield M Ripton

Both
- Lancefield Nitrate
- Mogul Yalumba

NOTE:
- Need Rnd 3 re-breed data next year
- lots of other solid performers
- also consider growth & carcase for full picture
SUMMARY of latest data

- good data, N sires used, daughters/sire
  - dedication ABBA & cooperators

- ovarian scanning powerful tool

- high pregnancy rates...less genetic differences
  - greater differences if tougher seasons

- later calving maidens less time at re-breed
  - days to calving (DC) critical measure

➢ sire differences exist ...if you measure

➢ more you measure ...the more accuracy!
Where is this going?

- steer growth, carcase, MSA, MQ (also important $$)
- female reproduction performance data critical
- DNA profiles very valuable (but not silver bullet!)

- all feeds into new version BREEDLAN (ABBA test breed)
- lifts EBV accuracies across all recorded traits
- benefits all (not just BIN bulls)
- need ongoing PT & selection to drive improvement