

Grazing ewes on dual-purpose wheat

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What we know...

- Wheat crops can be grazed
- High nutritive value
- Comparable grain yields
- The winter “feed gap”

But some issues ...

- Inconsistent performance of young stock
- High ewe losses

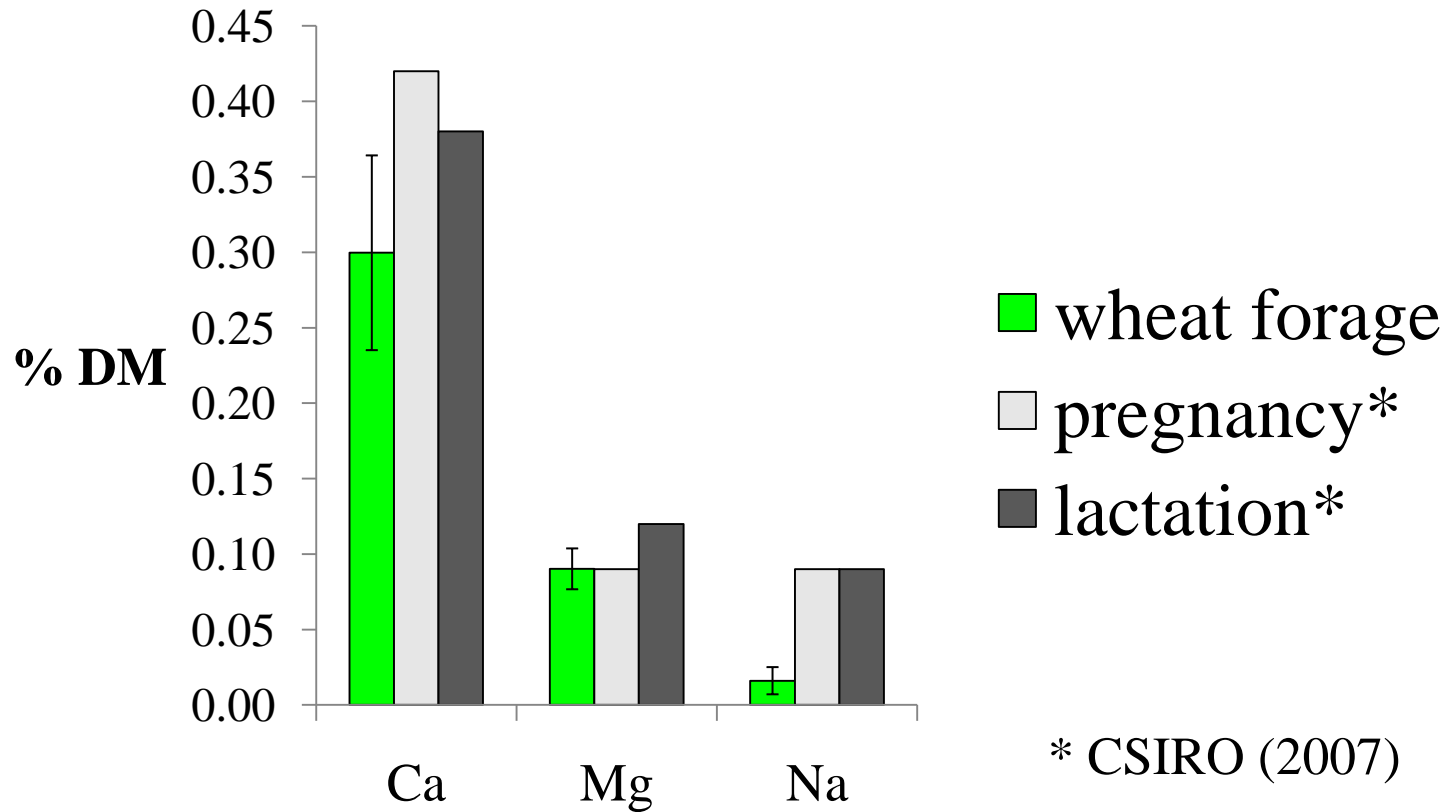
Growing lambs

- Dove and McMullen (2009)
- Improved lamb growth rates by mineral supplementation
- Magnesium (Mg) and Sodium (Na)
- Not always a response (Dove *et al*, 2012)

So what about ewes...

- High requirements
- Anecdotal reports of high ewe losses
- Metabolic diseases
 - hypocalcaemia
 - pregnancy toxaemia
 - hypomagnesaemia

Mineral profile of wheat compared to ewe requirements



Field experiments

- Balldale 2010
 - 292 Merino ewes
 - single- and twin-bearing
- Cookardinia 2011
 - 144 Coopworth x Merino Ewes, twin-bearing
- Test the effect of feeding a basic supplement
 - MgO, lime, salt (2:2:1)



Field experiments

- Balldale
 - 3 ewe mortalities
 - subclinical: 8 hypocalcaemic;
1 hypomagnesaemic
- Cookardinia
 - no ewe deaths
 - one subclinical hypocalcaemia
- No apparent effect on ewes from feeding supplement

Field experiments – Results cont.

- Balldale
 - Small increase in growth rate of twin-born lambs with supplement (258 v. 243 g/hd.day)
 - no effect on single-born lambs
- Cookardinia
 - high lamb growth rates and survival
 - no effect from supplementation



So what are farmers seeing?

- Surveys of producers in Hume LHPA
 - 202 respondents to questionnaire
- Comparative survey
 - Surveyed some of the respondents in a semi-structured interview

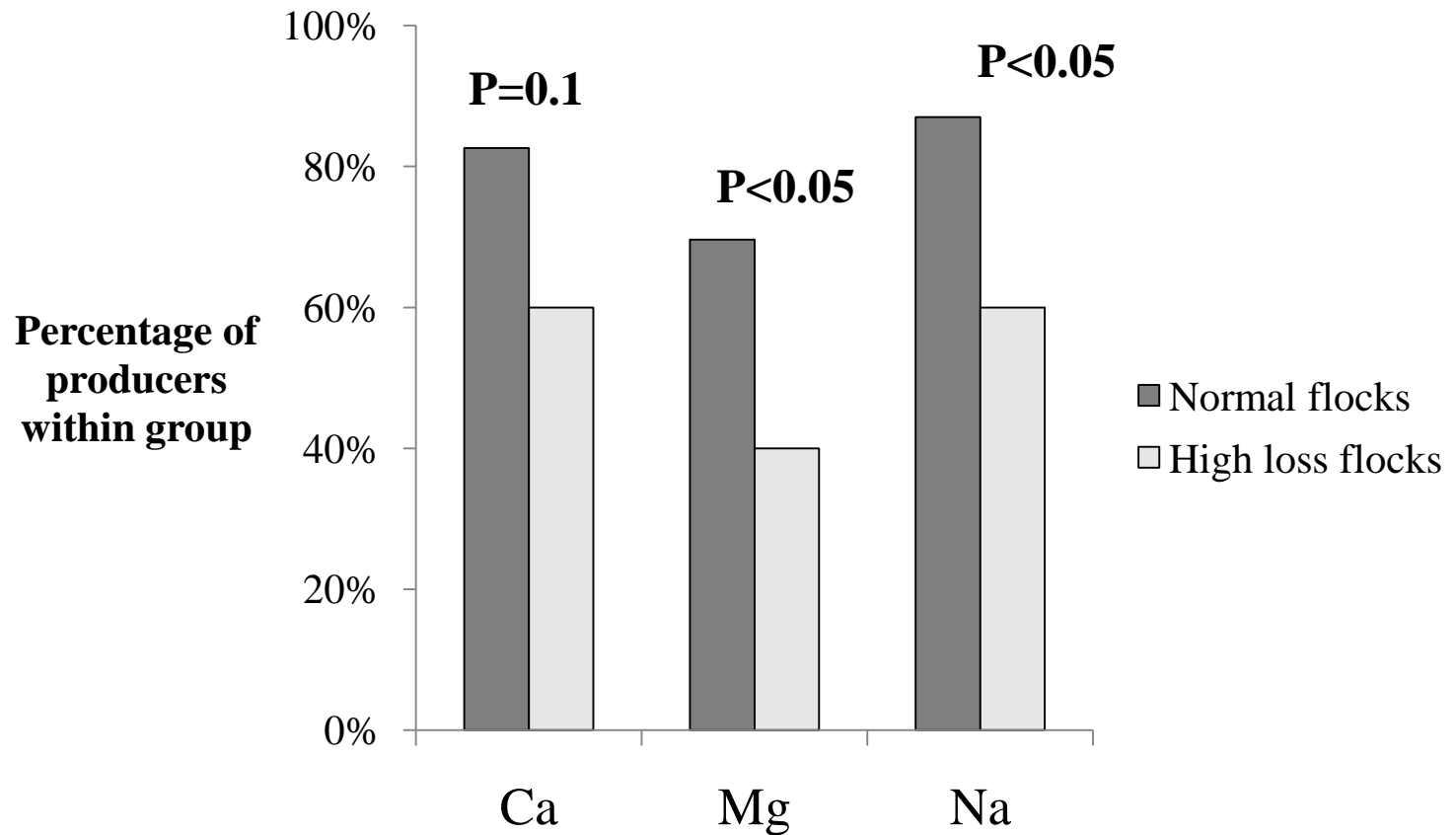
Questionnaire

- 43% of respondents had grazed late-pregnant or lambing ewes on dual-purpose wheat
- In 2010, 92% provided some type of supplement
- Dystocia, preg tox., foot abscess and grass tetany important in 2010
- Some reports of high ewe health issues 2005-2009

Comparative survey

- Compare “high loss” (n=20) to “normal” (n=23)
- Mortality rates in “high loss” group 8.6%
- Metabolic diseases
- Higher BCS in “normal” flocks (3.2 v. 2.8)
- Mineral supplements important

Minerals supplied to ewes while grazing crop



Conclusion

- Ewes may be grazed on wheat during late pregnancy/lambing
- BUT may be susceptible to metabolic diseases
- Supply *ad libitum* access to mineral supplements that include Magnesium, Sodium and Calcium
- Body condition score and stressors

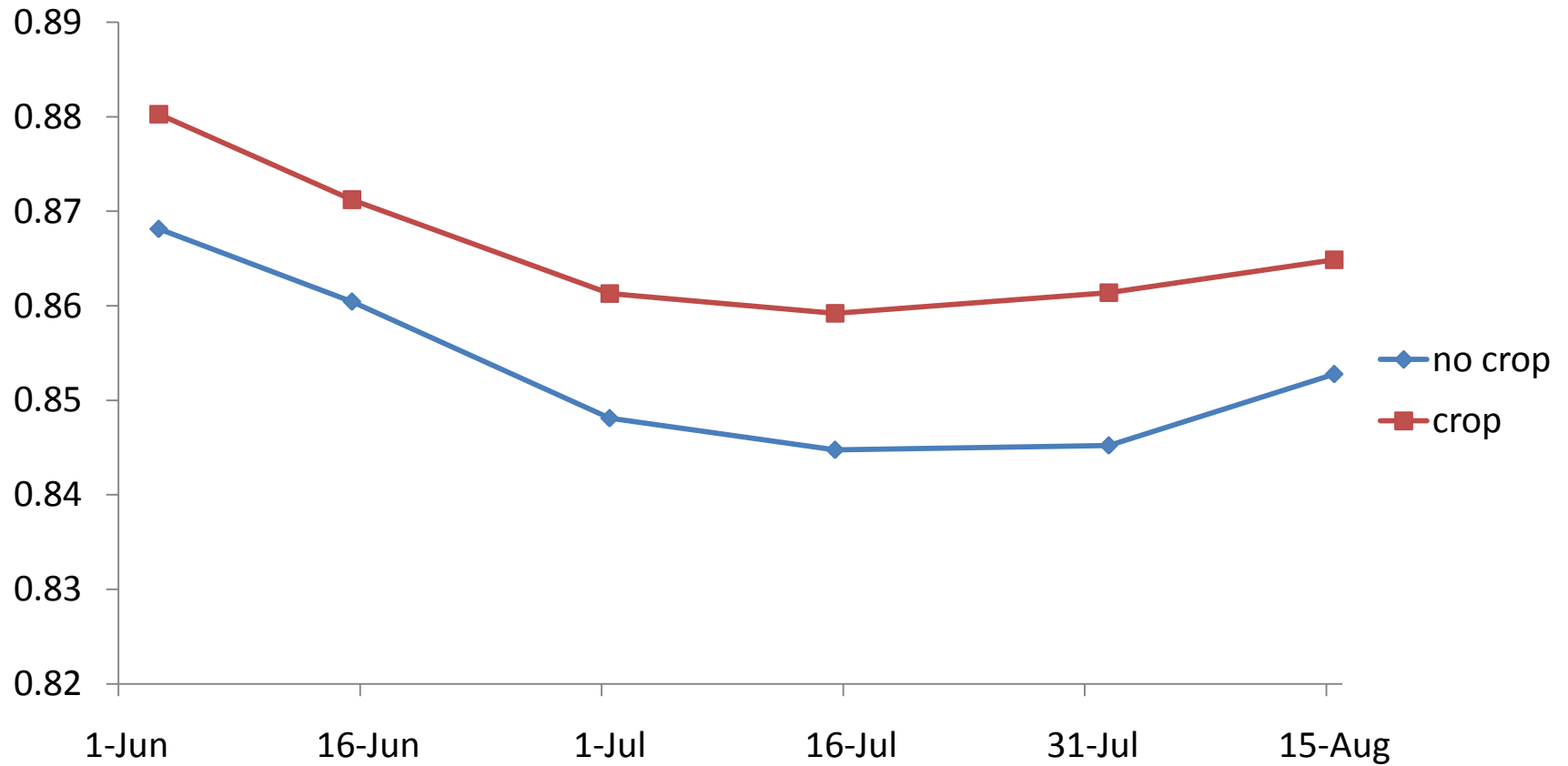
So what does this mean for the system?

- Modelling a portion of a mixed farm with ewes allowed to graze wheat (AusFarm)
- 400 hectares lucerne/sub clover grazed rotationally
- +/- access to dual-purpose wheat

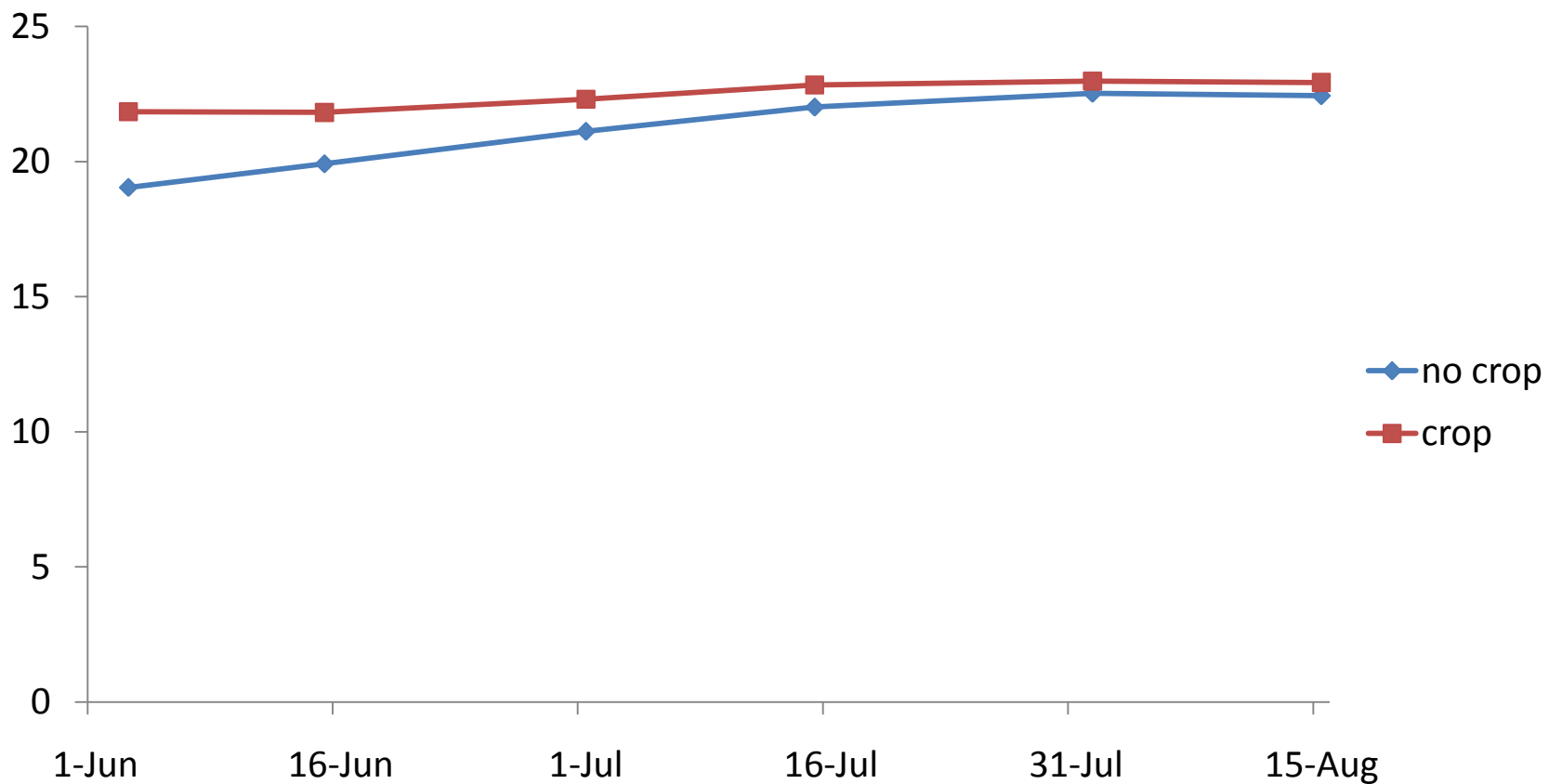
Lambing time in the Hume LHPA (mixed farms)

- Medium Merino ewes joined to meat sheep breed
- Replacements purchased
- Lambs sold at median age 18 weeks
- Stocking rate 10 ewes/ha
- Area of wheat available 350ha
- Grain to maintain condition score >2.0 , and feeding during last trimester to maintain BCS >2.5

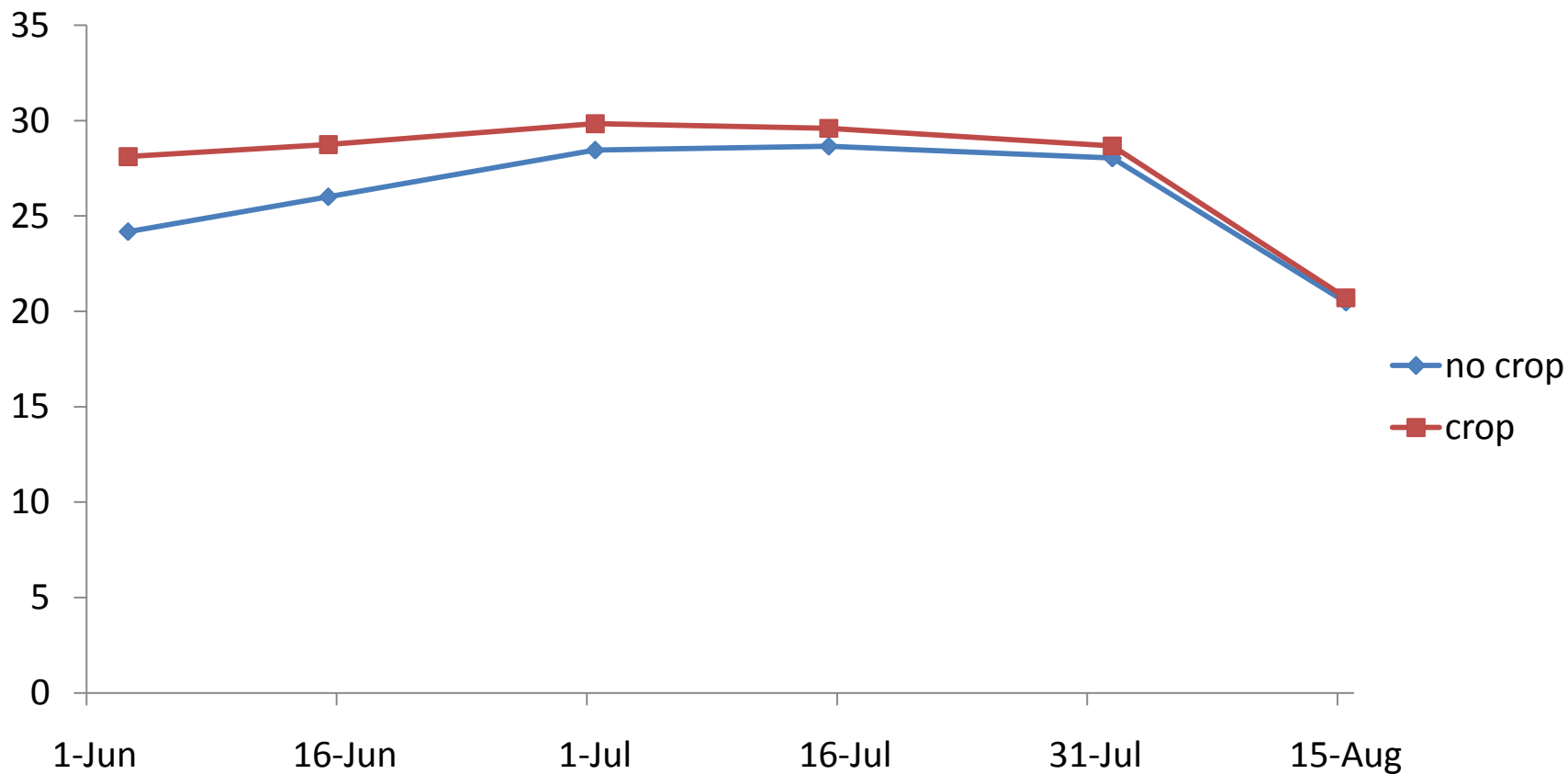
Weaning %



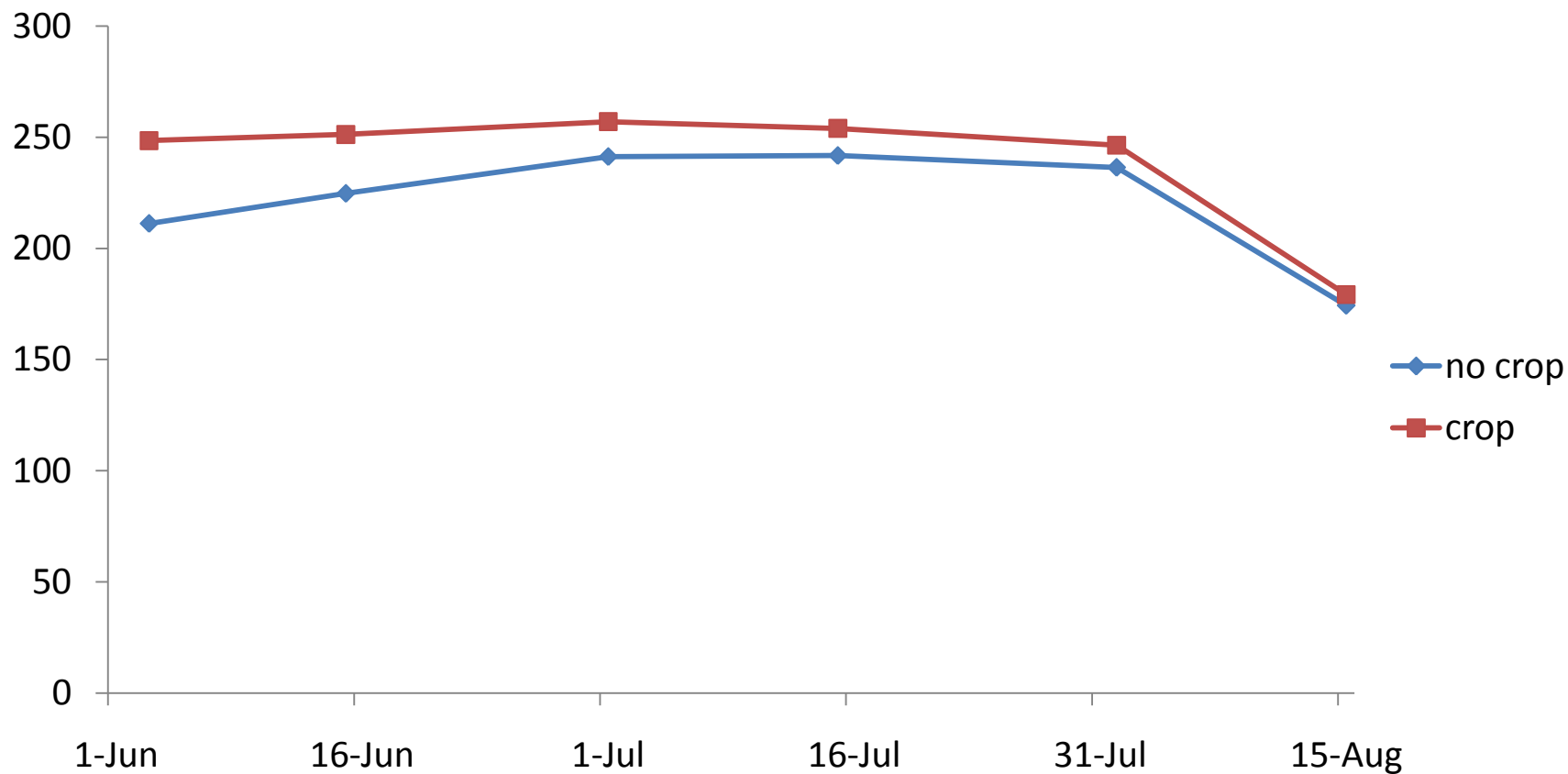
Average wean weight (kg)



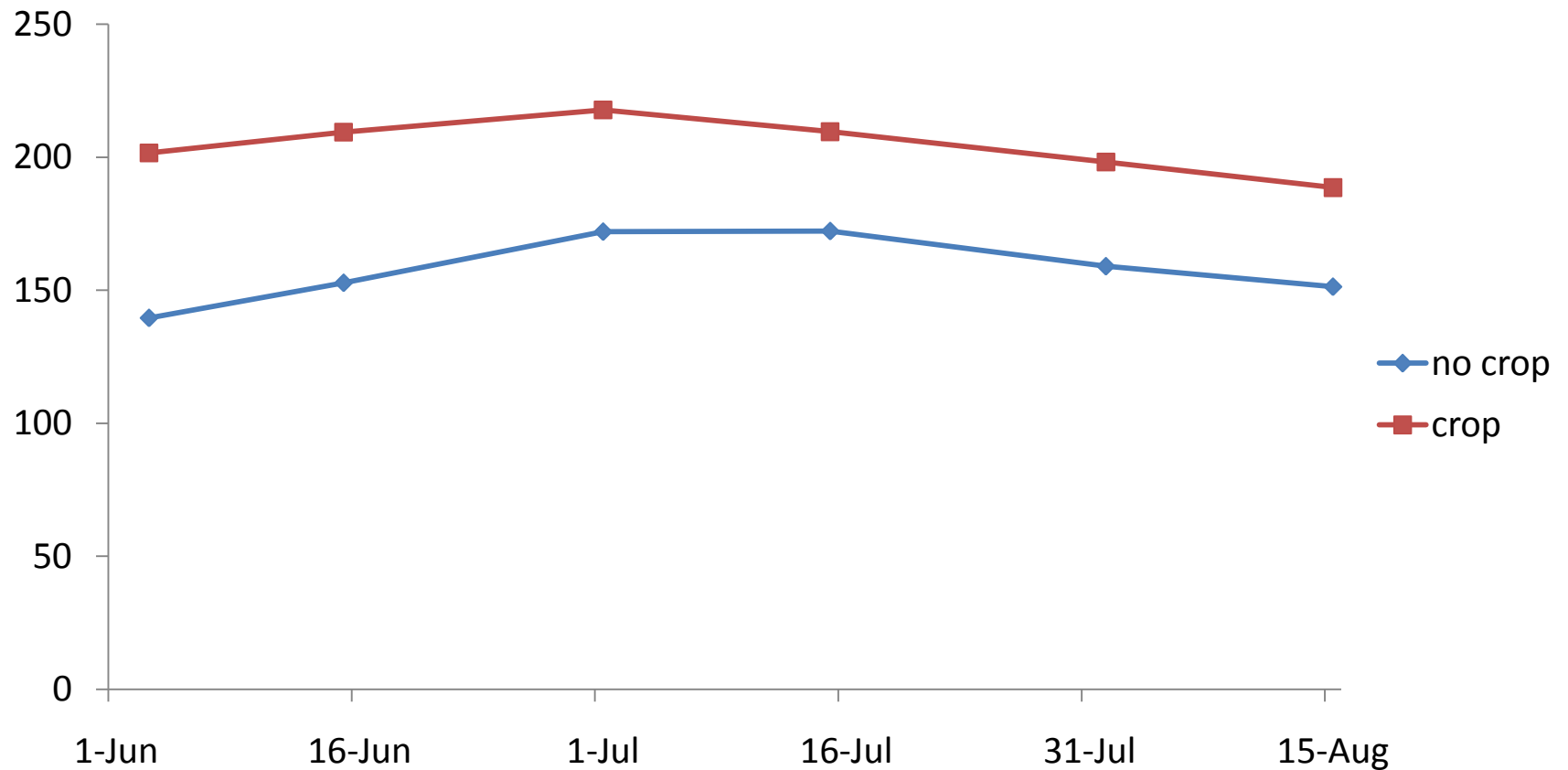
Average sale weight (18 weeks) (kg)



Kg lamb (18 weeks) per ha pasture



Gross margin \$/ha of pasture (SR 10)



Conclusion - modelling

- Making an area of crop available for winter-lambing ewes to graze increases production
- July lambing fits well with crop availability
- Median date for crop reaching 850kg/ha was 9 July (1970-2010).
- under grazing rules average of 50 days grazing wheat

Acknowledgements

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Model of growth rate response against time

Predicted ADG at FOO 1000 kg DM/ha

