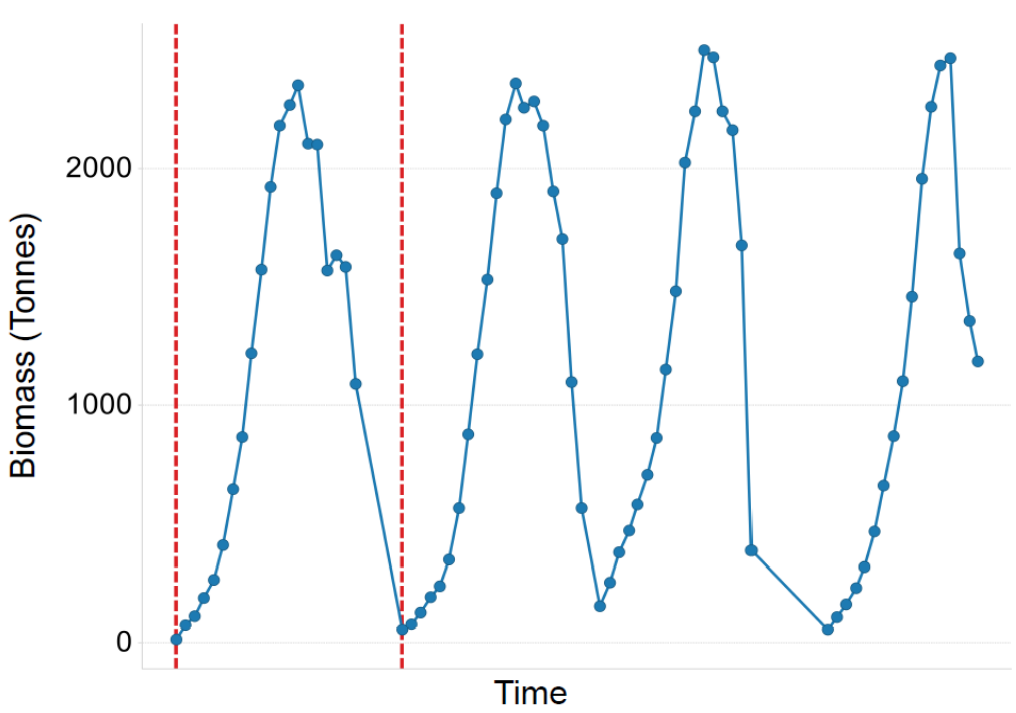
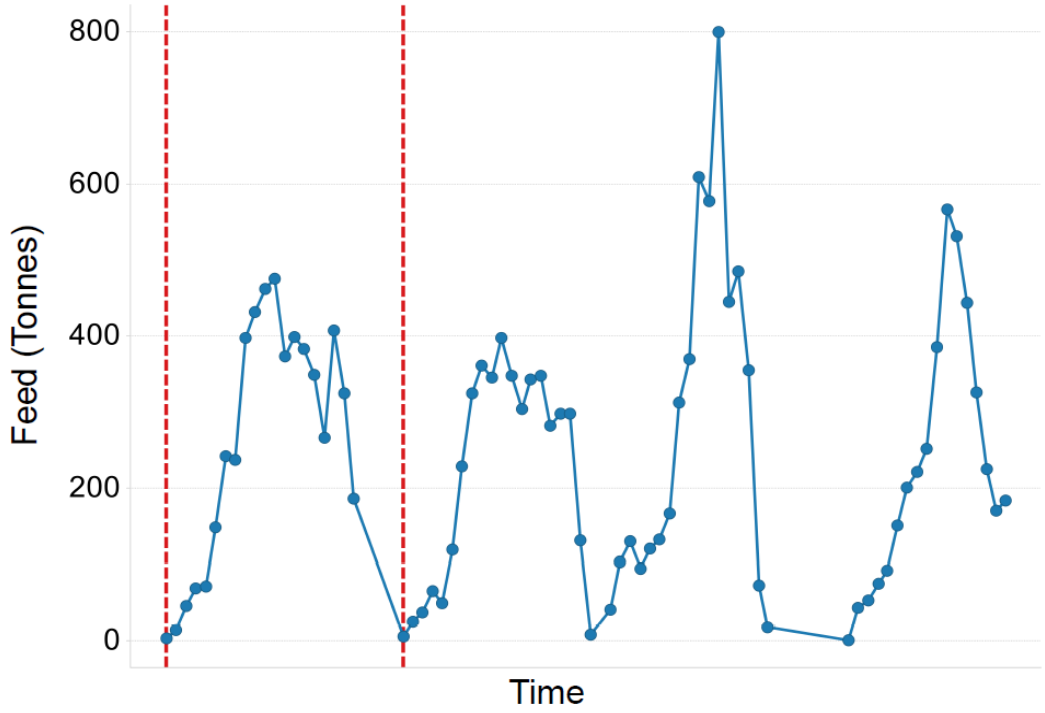
Biomass & feed: data that SEPA holds





- Monthly reports of peak biomass and total feed used (>15 years, 400 sites)
- This information is supplied to us by operators & assume equally valid
- Feed is more variable than biomass

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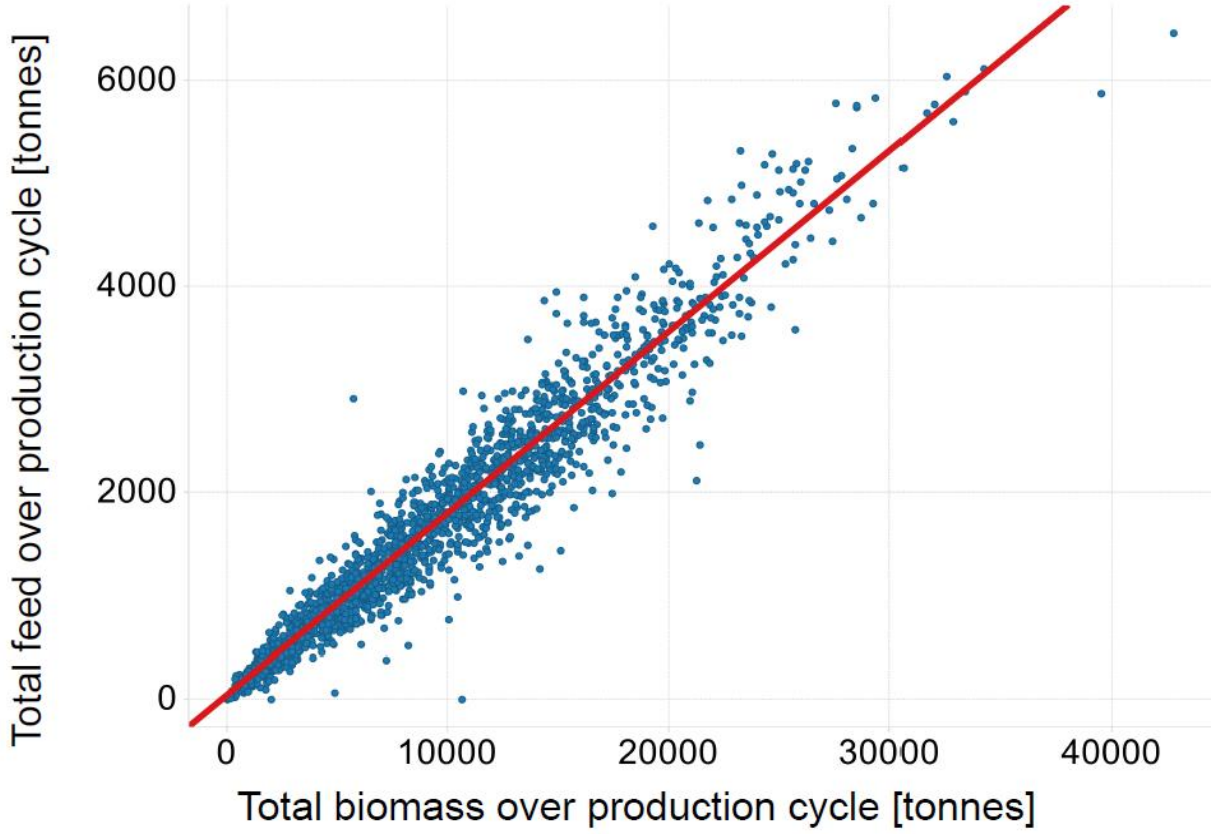
Biomass & feed over a full production cycle

- Consider total feed used over a production cycle
- Greater biomass associated with greater feed
- There remains substantial scatter
- This can be caused by:
  - Site conditions
  - Annual feeding patterns
  - Different production cycle lengths
- Other mechanisms not in the data



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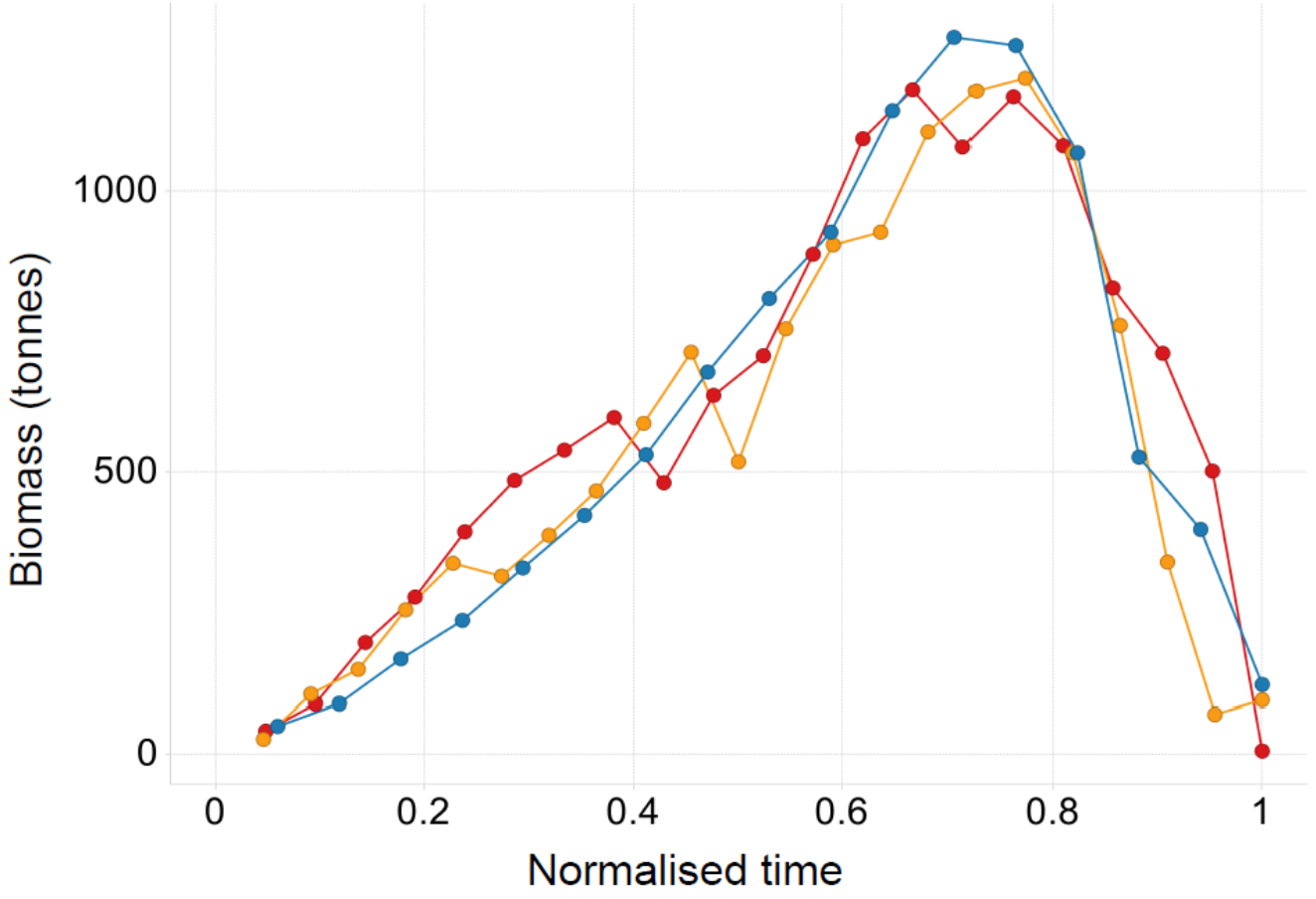
Similarities across production cycles

- Cluster analysis work
- No such thing as a “typical” production cycle
- Individual farms will often operate in very similar ways over multiple production cycles



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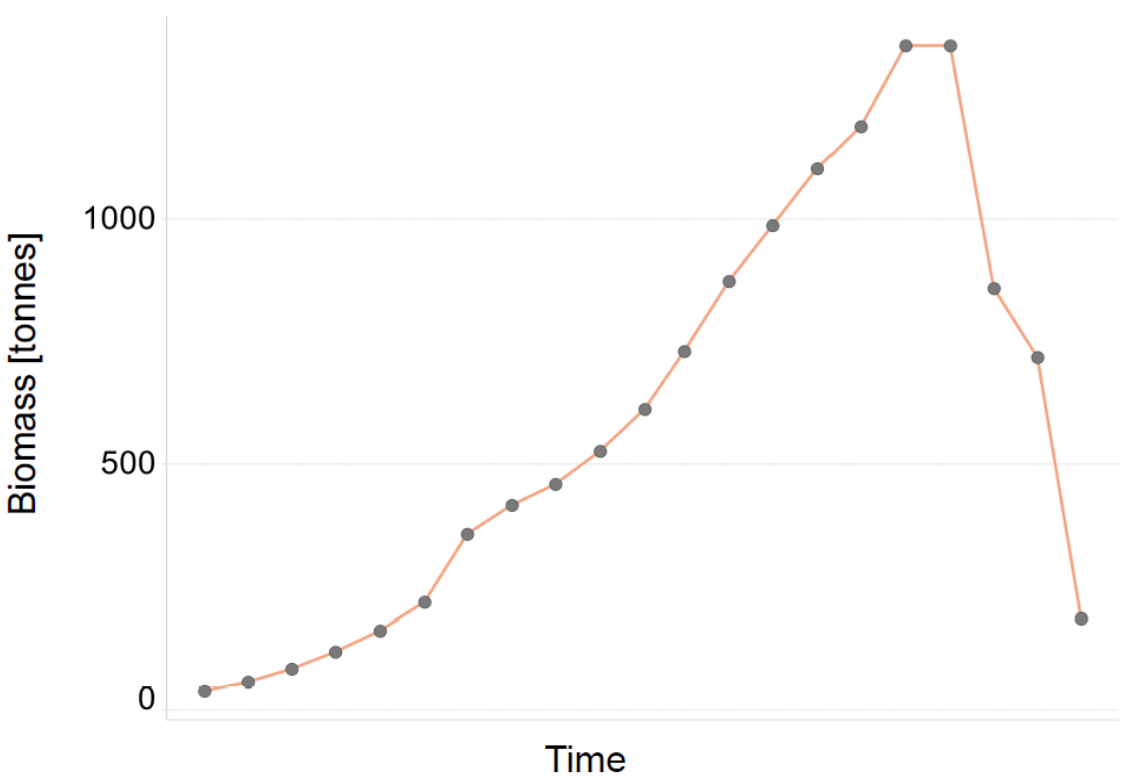
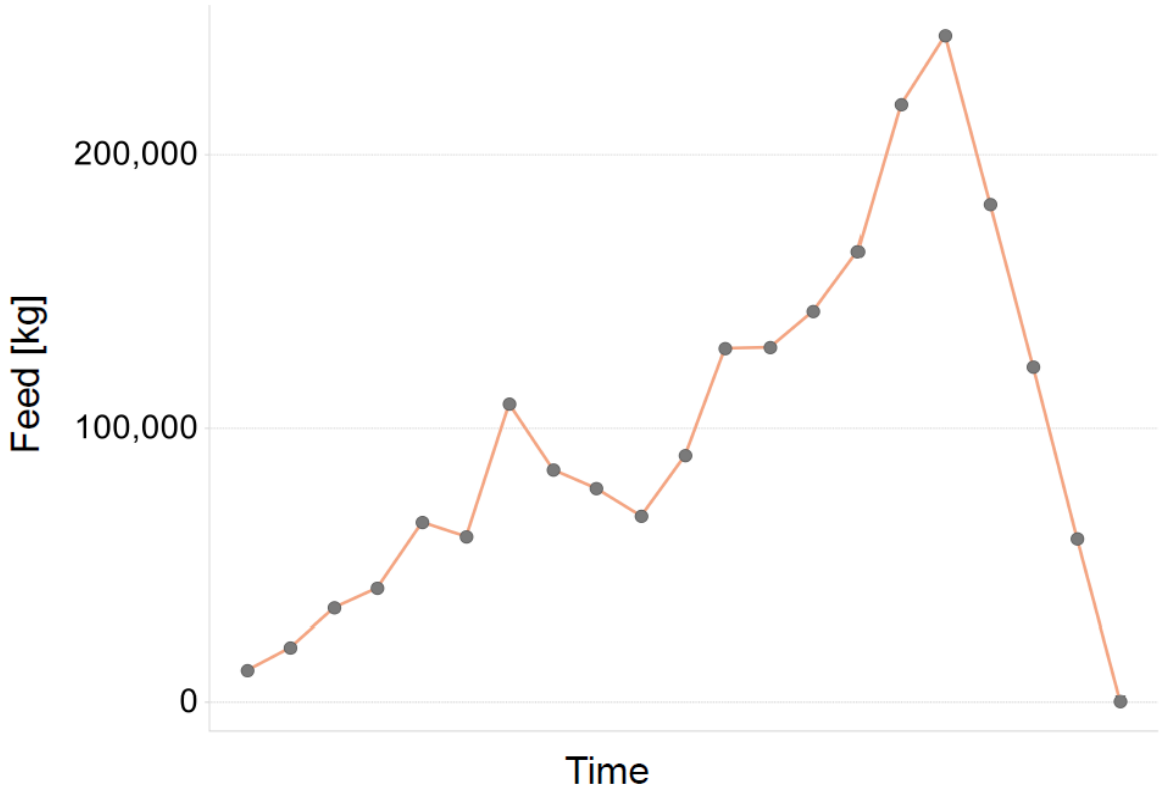
What about feed per unit biomass?





- Absolute feed amounts are greatest around peak biomass

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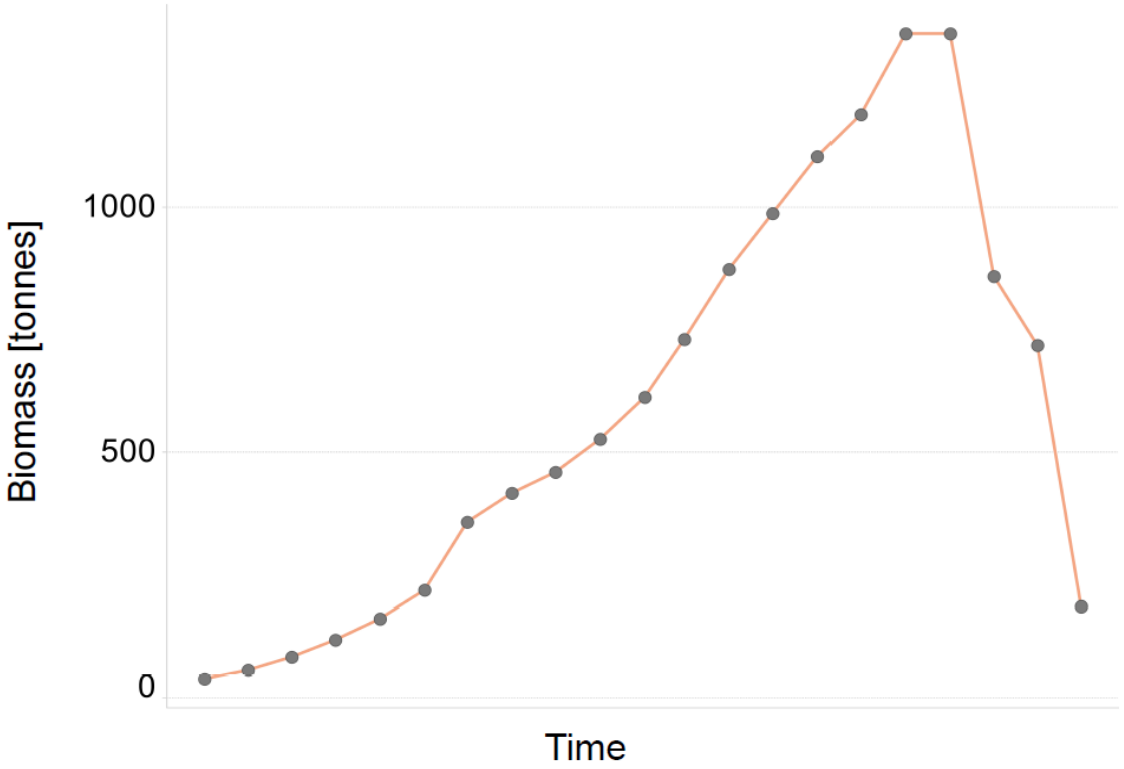
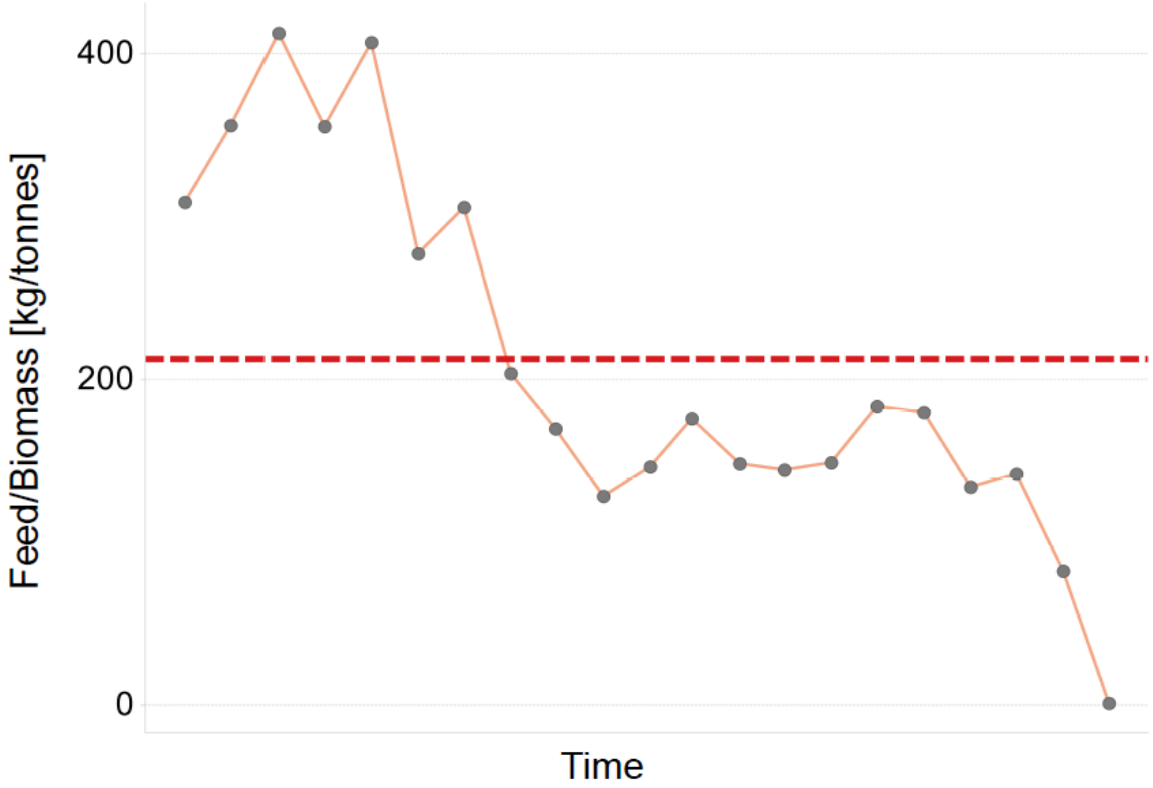
What about feed per unit biomass?

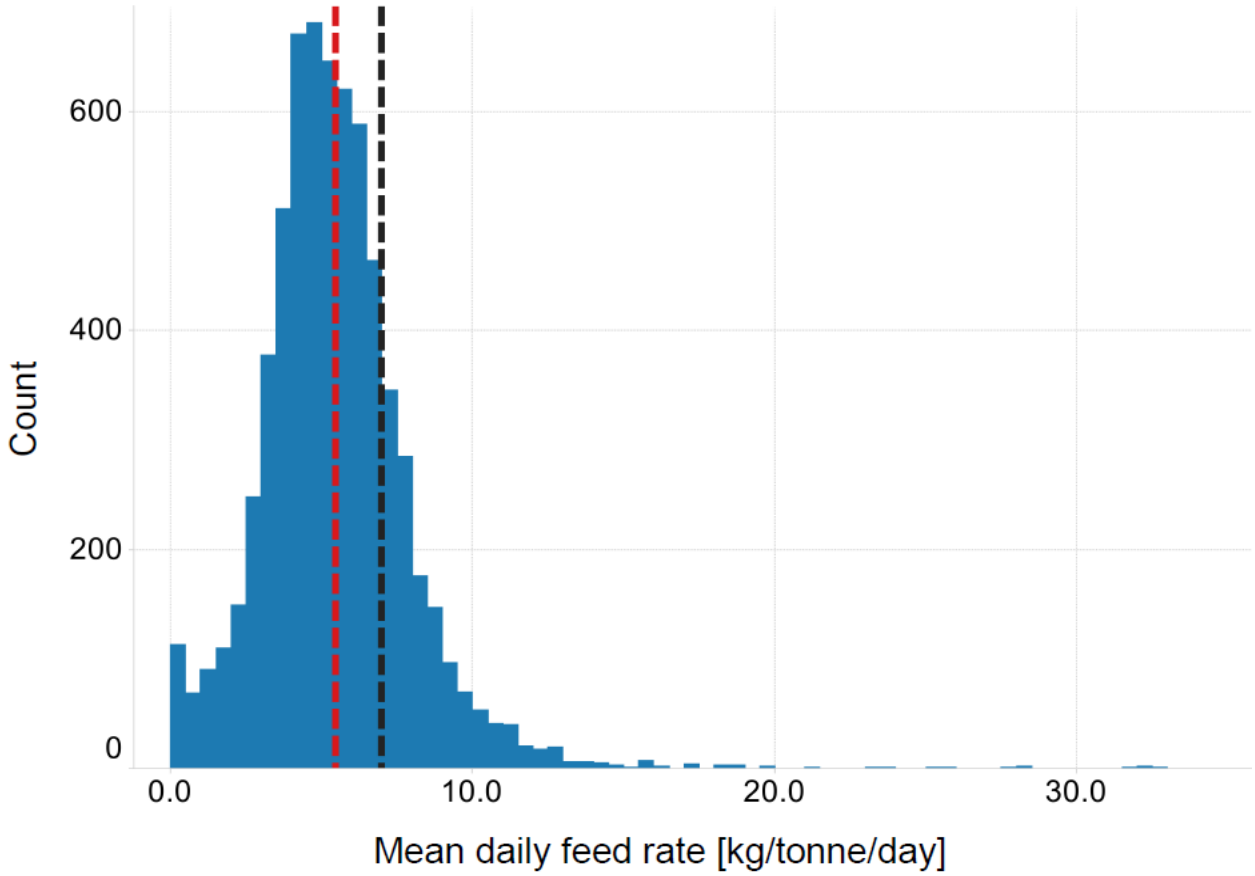




- Feed per unit mass is greatest at the beginning of the growth cycle
- 7kg/tonne/day is the estimate used in our modelling at peak biomass

Feed/biomass ratio for all farms

- Looked at feed/biomass for 3 month period around peak biomass
- Did this for every production cycle
- Converted monthly figures into daily
- Mean ratio: 5.5 kg/tonne/day
- 7kg/tonne/day = 80th percentile



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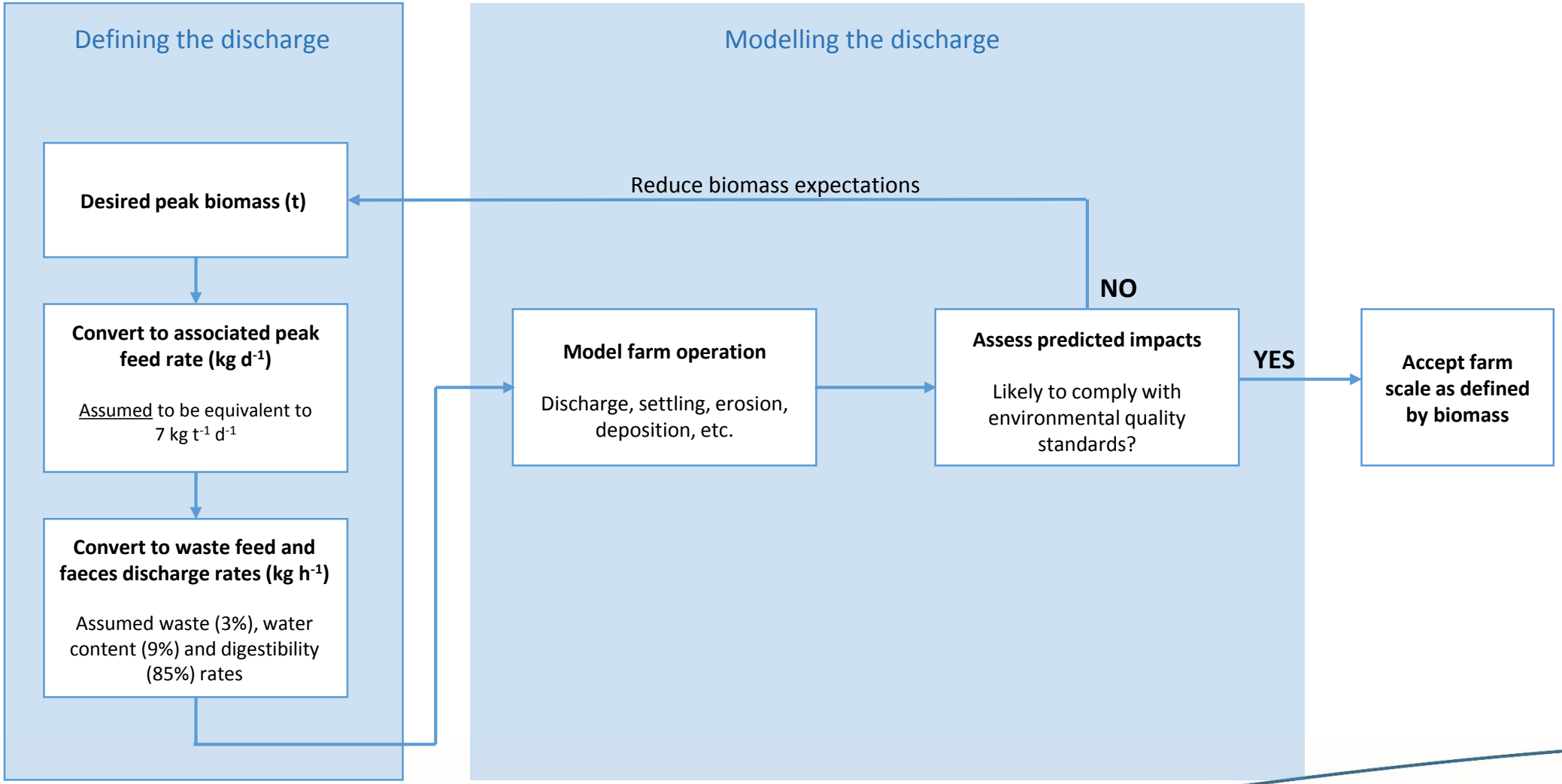
Summary

- Understanding of how biomass & feed can behave over a production cycle
- See that a relationship exists between them, but it is not trivial
- Further analysis of these data is ongoing
- This includes work to:
  - QC data
  - Better understand how farms are operating
  - Identify potentially suspicious returns

Current system



Proposed system