



Integration of cattle and irrigated cropping in northern Western Australia: Opportunities and challenges

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Why Western Australia (Northern WA) beef cattle?

- ❑ The WA beef industry represents:
 - 2 million beef cattle
 - \$1.03 billion gross value produced in 2021-2022
 - Geographic positioning for South-East Asian markets

- ❑ The challenges of northern WA beef industry:
 - International competition & risk of live export
 - Low productivity system
 - North-to-south movement of cattle for domestic markets



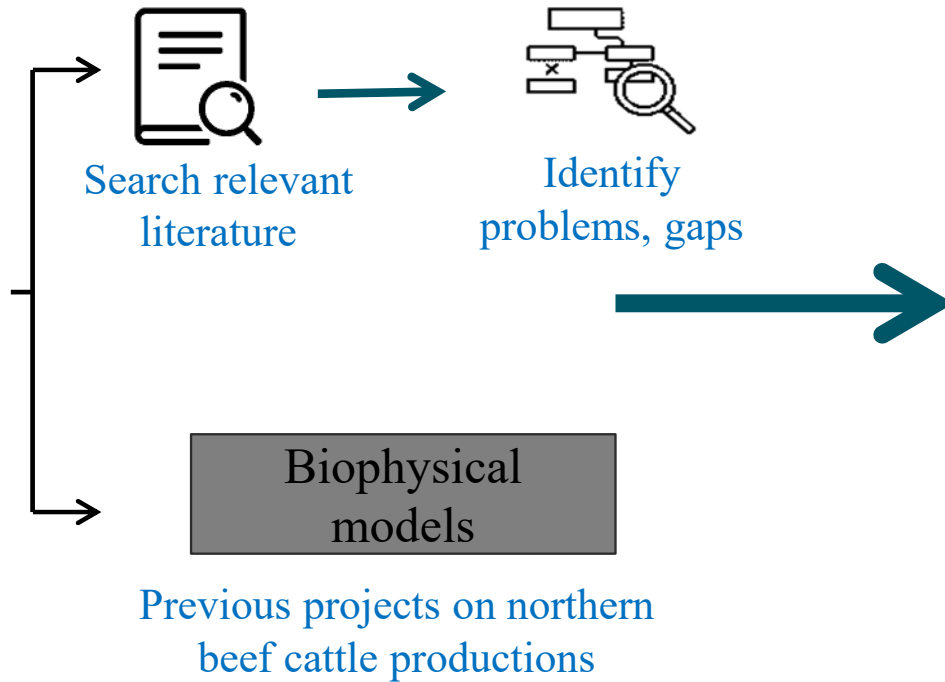


What are the project aims?

- ❑ Current supply chain in northern WA beef industry.
- ❑ What is the alternative or change that can be implemented?
- ❑ An appropriate model to compare alternatives with the current scenario.



Methods

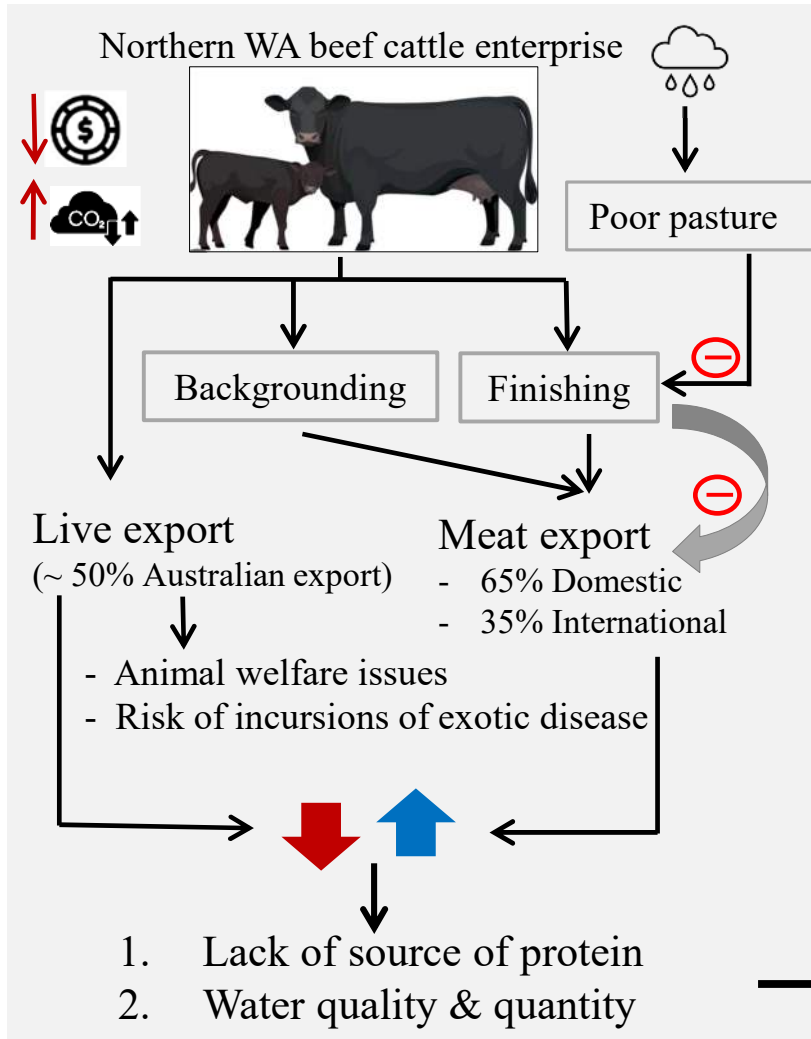


- Figure out the challenges
- Prioritize the opportunities
- Define the possible solutions/scenarios
- Plan for next step



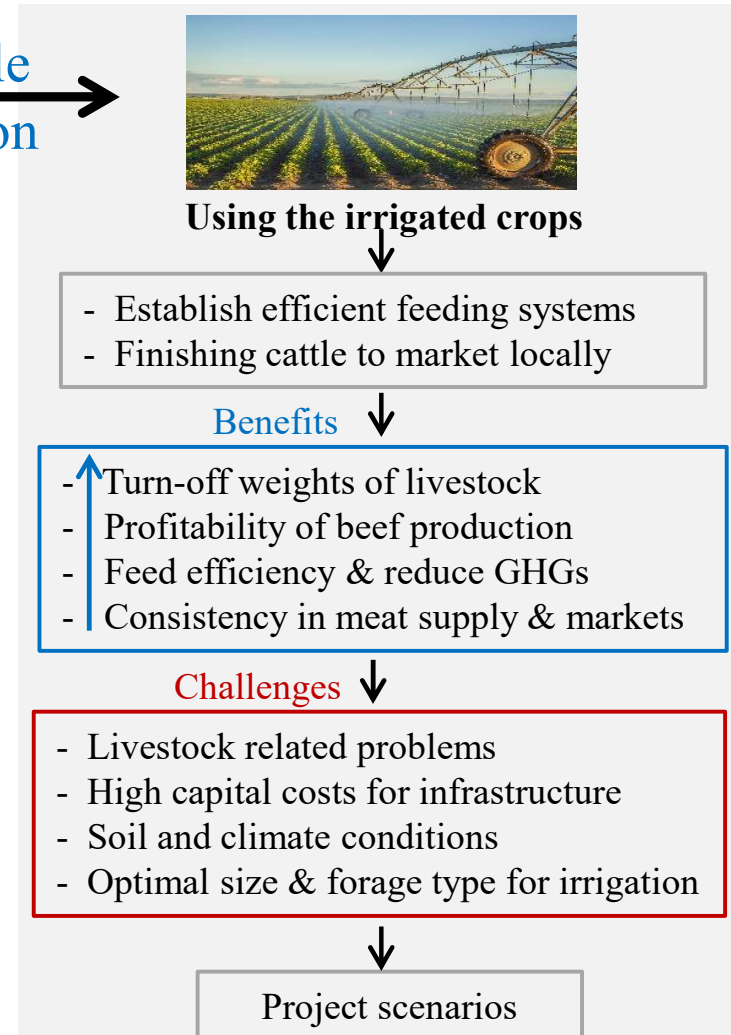
Findings

Current supply chain



Possible solution

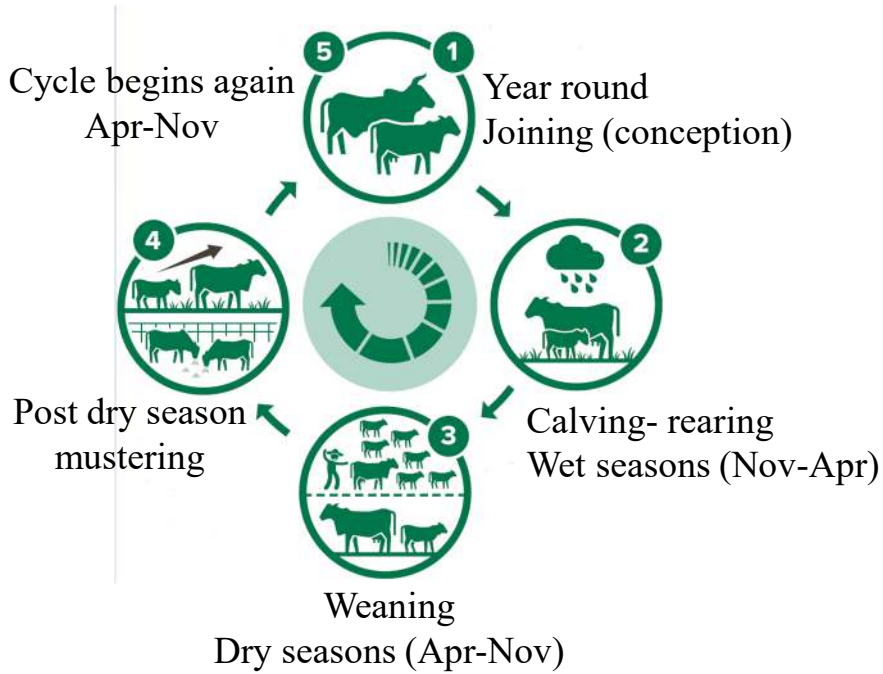
What is the alternative?



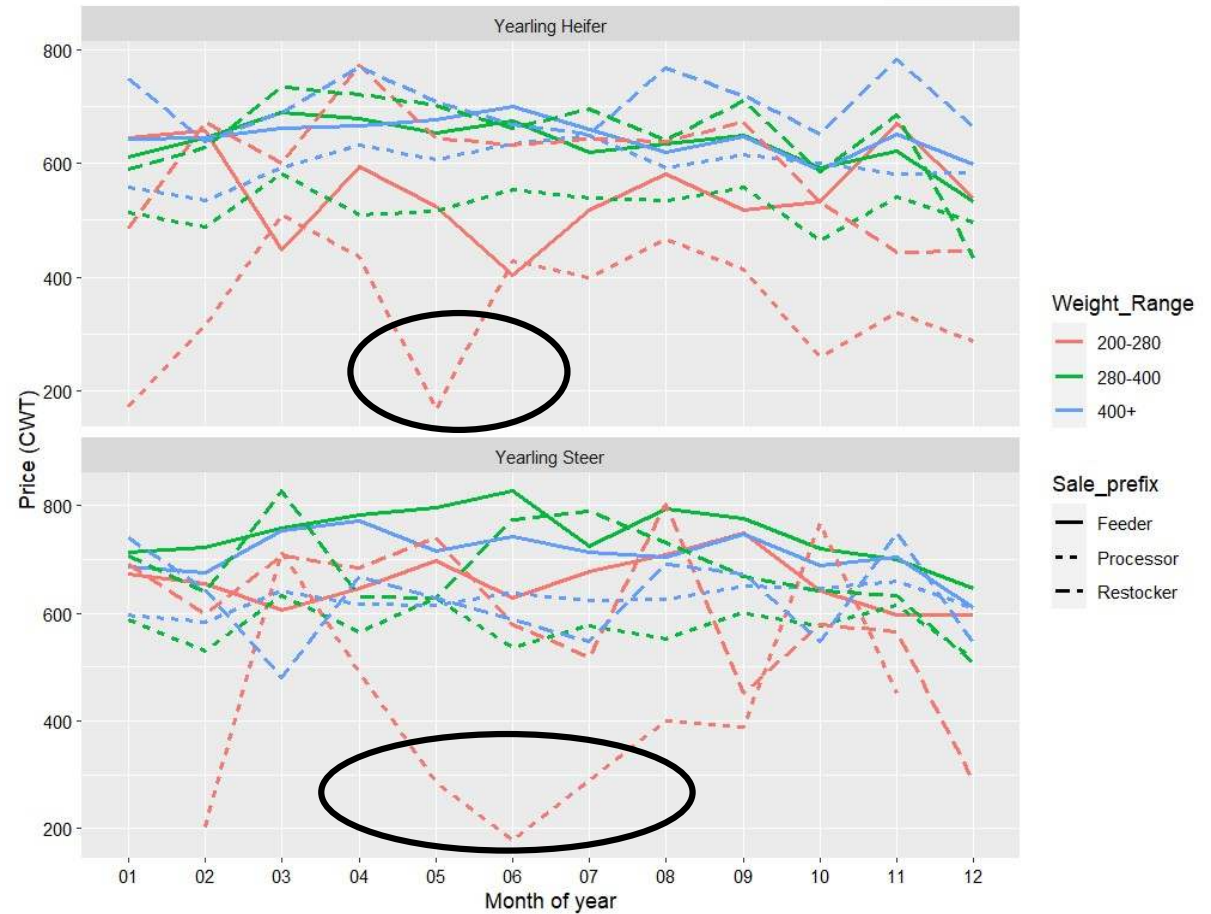


Findings

Northern cattle life cycle

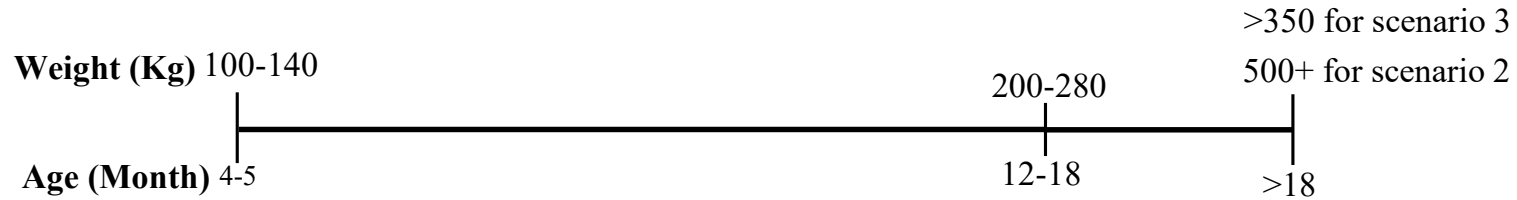


Australian yearling sale price





Possible scenarios

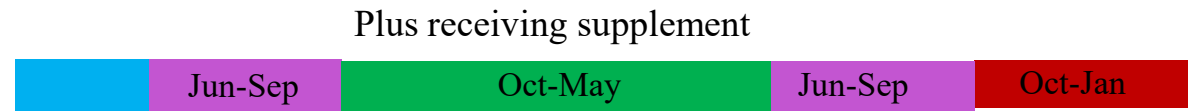


1. Baseline-BAU



2. Feedlot

Transportation cost



3. Rotation feedlot



1. Selling Top 50%

2-3 mo.

2. Finishing then sell: Lower middle 25%

2-3 mo.

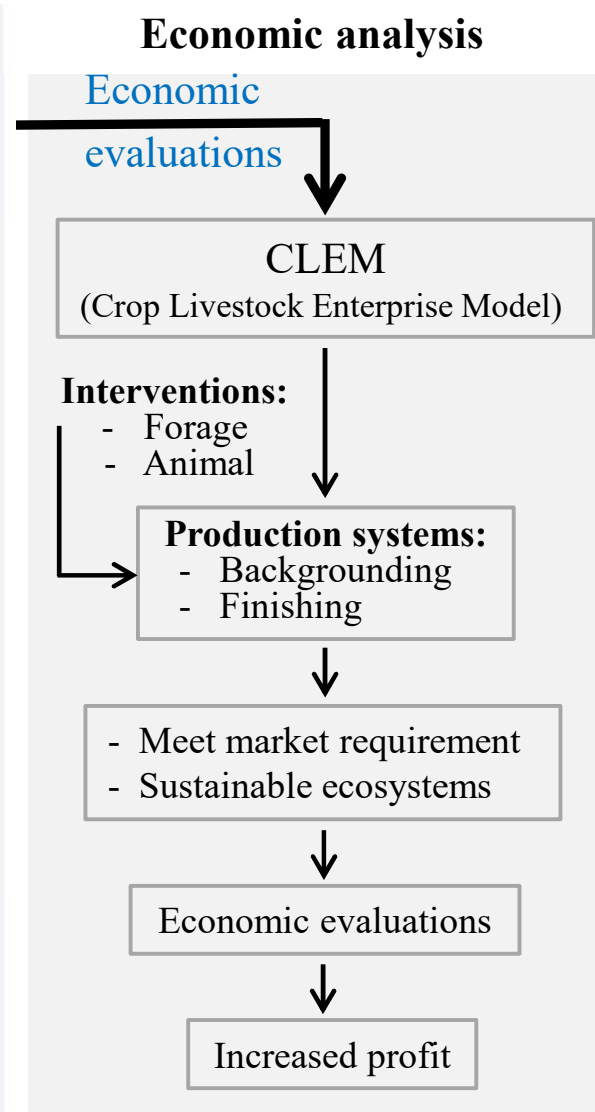
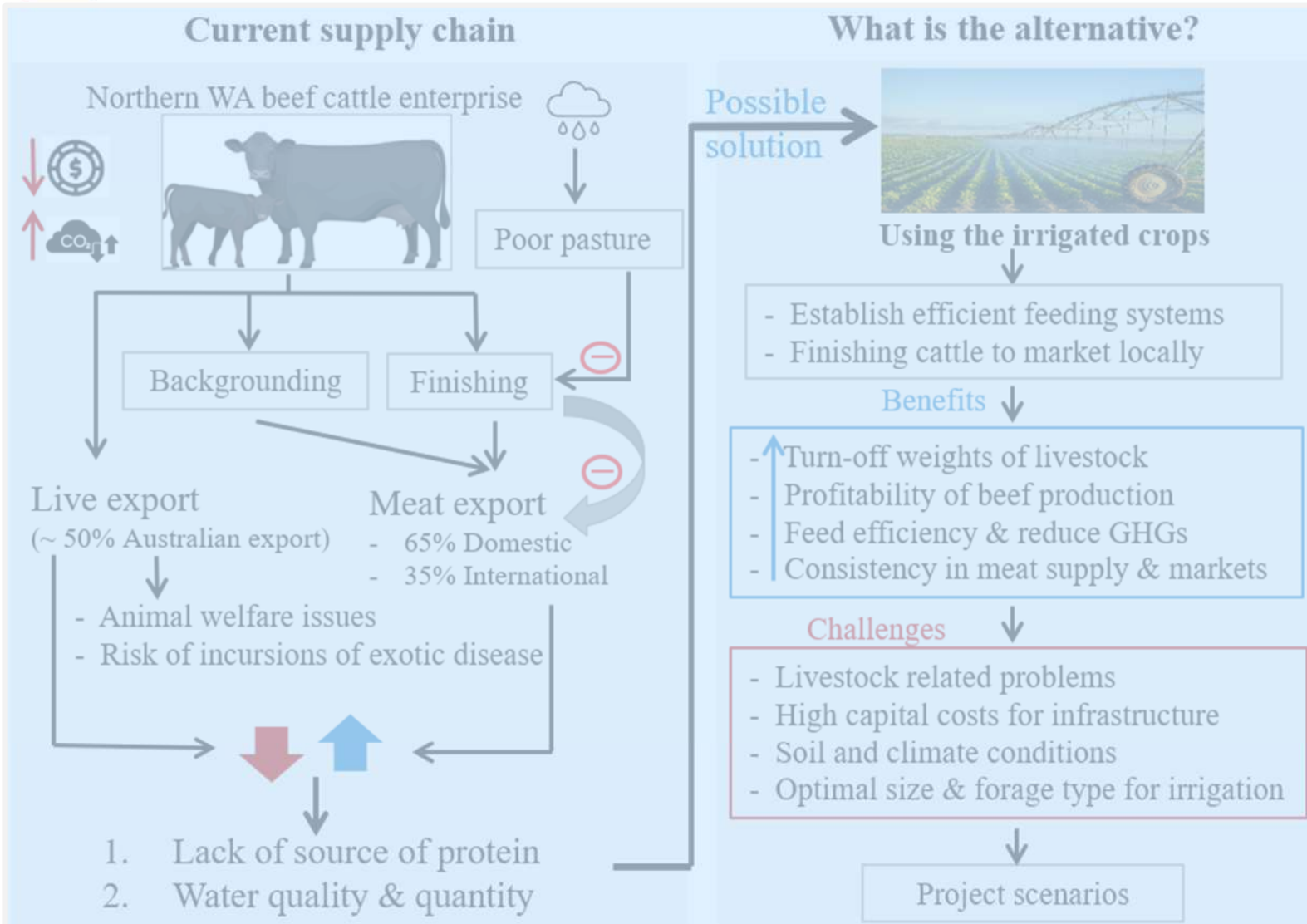
2-3 mo.

3. Backgrounding, Finishing, then sell: Bottom 25%





Findings





Conclusion

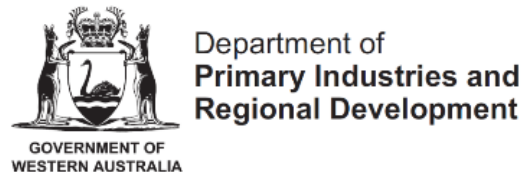
- ❑ Our review provides:
 - Potential for using irrigated crops for feedlot finishing
 - Mitigating seasonal supply chain disruptions, and
 - Supplying the market year-round
 - CLEM biophysical model to simulate defined scenarios and assess economic and sustainability outcomes

Next step

- ❑ Animal productivity and enterprise profitability will be evaluated against the baseline, simulating our scenarios in CLEM.

Thank you

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