Final report

PDS – Pastoral Partners Accelerating the Transition

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1 Abstract

This PDS project aimed to demonstrate and assist producers in northern WA to mitigate live weight and productivity loss in cattle transitioning from northern rangelands to southern backgrounding properties. The project aimed to achieve this through engaging producers in a series of holistic management workshops focusing on de-stressing techniques prior to transport and exposure to unfamiliar objects. The aim was that the integration of adaptation procedures to enhance livestock performance along the value chain. Unfortunately, COVID-19 border restrictions within WA and limited capacity to collect weight data in a remote region meant that the project was constricted to training and knowledge sharing with anecdotal discussion of benefits. In total, 11 workshops were delivered and engaged 5 core producers, 35 observer producers, 18,500 cattle, and 966,000 hectares.

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2 Executive summary

The project was heavily impacted by Covid-19, WA State Government legislation (border closure) and various natural environmental impacts (e.g. cyclone, flood, drought). The project was paused for 18 months but was reviewed by producers and MLA. The project relaunched in May 2022 with an inception meeting in Perth WA and commencement of training activities.

This project aimed to demonstrate and assist producers in northern WA to mitigate live weight and productivity loss for cattle transitioning from northern rangelands to southern backgrounding properties by integrating adaptation procedures to enhance livestock performance along the value chain. The project had close alignment to the WA BeefLinks project P.PSH.1233 and accessed data and information from that project to upskill existing workforce and build capacity for engaged producers.

The problem: depressed performance of cattle when transitioning from pastoral to agricultural areas. Transport shrinkage and the regaining of lost weight can be constrained by poor livestock adaptation.

The impact: Weight loss experienced in the transition leads to longer recovery times and increased pasture and/or supplementary feeding to recover lost weight. These costs are a major business consideration and potential impediment to transport of cattle, and have negative implications to the adjustment of stocking rates for environmental or economic reasons. Reducing transition weight losses has multiple benefits as it will allow for more appropriate de-stocking and re-stocking decisions.

How many affected: A high percentage of pastoral businesses in the Pilbara and Southern Rangelands of WA are affected as losses in transit and adjustment impacts majority of supply chains across the pastoral region as the Southern domestic markets are important even for operations focussed on live export.

In an average year, 30,000 cattle would transition from the Gascoyne and lower Pilbara regions to southern agriculture areas. Losses in weight may have a potential impact ranging from $40-$160 per head (or $1.2m-$4.8m to the region alone)

How is it addressed now: Currently various ad-hoc acclimation procedures and practices are conducted during transitioning of cattle but often the practices chosen are not supported by any comparative basis (within businesses or to similar businesses). Further, there is minimal to no recording and analysis of animal performance data to ensure measures being taken are appropriate for different mobs of cattle. This has resulted in no adjustments to current practice to minimise the reduction in weight and productivity. Recent data from MDC/MLA/UWA Beeflinks program has suggested that the lack of consistency in transitioning can result in highly variable weight loss and costs associated with management of backgrounding.

Estimate of current adoption: Approximately 10% of producers have adopted some active procedures in a systemic fashion (implementing some aspects of the North-South Beef Alliance (2016 surveys) with another 15-25% using some combination of practices aimed at adaptation.

2.1 Objectives

By June 2024 this project aims to:

1. Measure and demonstrate the differences in cattle live weight across 5 pastoral/agricultural partnerships through measurement of individual animals and total

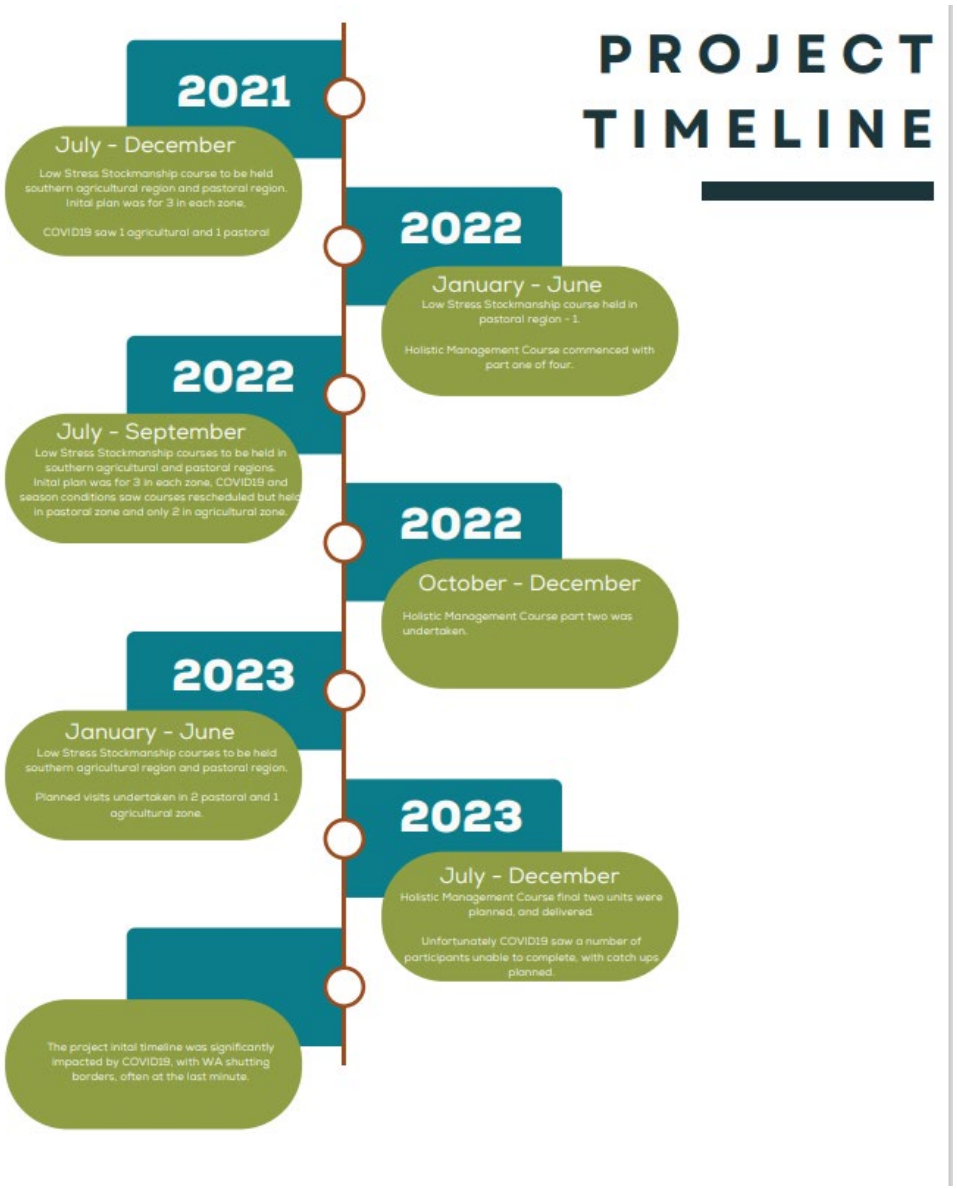
load weights (Year 1). The cattle to be used may be a combination of breeders and weaners.

2. Relate existing performance to existing management practices (labour, time taken loading and transport duration, nutritional resources provided (pre and post transition), handling procedures and any other additional resources allocated across the transition chain).
3. Support the implementation of practices that may assist producers to manage cattle in a way that reduces the impact of the transition from rangelands to backgrounding.
4. Measure the impact of changed practice on both individual businesses and benchmarked across the core group. (Year 2 and 3) and conduct a cost/benefit analysis of changes implemented
5. Implement whole-of-chain change practice recommendations by instituting a holistic behavioural change program incorporating group learning outcomes with the core group.
6. Monitor and evaluate the project outcomes to provide a positive feedback loop for producers and verify/integrate procedures that aim to achieve the goal of halving any measured losses.
7. Extend adoption by conducting 5 demonstration day workshops across the pastoral and agricultural zones on core participating properties to demonstrate the effects of changed practices and procedures to wider group members and industry.
8. Improve the knowledge and skills of all the participating core producers and 80% of observer producers.
9. Provide case studies to MLAs communications team of the 5 pastoral/agricultural partnerships on the procedural changes enacted for further industry adoption. A general producer guide containing the group analysis results with identification of key practice changes that impact on productivity results will be produced.
10. 100% of core producers (5 businesses- 10 locations- 95 people) and 45% of observer producers (90 businesses- 4 regional locations- 220 people) adopt new practices that reduce weight loss of livestock being transitioned from pastoral to agricultural areas.
11. Collaborate with regional organisations (KPCA, MIG and WMG) for combined presentations at the demonstration day workshops and further extension of findings.

3 Methodology

The project was a regional wide extension and adoption network with a number of formal face to face training sessions on station supporting the transition and management of cattle into the WA supply chain. The project also collected several key data sources (animal weight and animal behavioural scores) to be used as part of the training program. Interviews of producers were undertaken to understand the reasons for training and its impact.

Figure 1. Timeline of the PPATT Project



4 Results/key findings

The Stress-Free Stock Handling Workshop provided valuable insights into the benefits of actively calming cattle and implementing Stress-Free stockmanship practices. Participants learned that actively calm cattle are more productive, with indications that there was reduced shrinkage during transportation and faster weight gain upon introduction to new pastures. It will be important to quantify the reduction in shrinkage across specific lots of animals tightly controlled for different management practices to estimate the productivity and financial benefits. Additionally, there was evidence that Stress-Free stockmanship practices led to benefits such as minimised bruising in yards, decreased weight loss during yard processing, improved occupational health and safety conditions, and more efficient stock mustering. This workshop introduced a new approach to handling stock, highlighting the importance of reduced stress and self-herding techniques over traditional methods. Following the workshop, the participants reported that they had implemented various new practices learned, including active calming using Rangeland self-herding techniques, increased handling and education of weaners, and experimenting with alternative weaning methods such as opening up yards and introducing obstacles. Additionally, participants focused on familiarising cattle with truck loading and unloading procedures to reduce stress during transportation. These changes represent a departure from previous practices, signalling a shift towards more effective stock handling methods. It would be very useful to compare the impact of these changes with a group of control animals managed using previous practices to quantify the direct benefits of the new management practices. The Holistic Management Course offered participants further opportunities for learning and improvement, focusing on new grazing techniques, rotational grazing, and setting holistic visions with ambitious goals. Future plans include adopting farm planning techniques such as keyline and cell grazing, increasing the number of paddocks for rotational grazing, and enhancing road development to improve water flow and land systems. Participants also aim to support the revitalisation of the WA southern rangelands by controlling grazing pressure and implementing rigorous forage budgeting. By incorporating these new practices, participants aim to achieve their holistic vision while promoting sustainability and efficiency on their properties.

“We have had some major improvements in the productivity of our farm with much more diversity in pastures. We are seeing zero shrinkage in transport of destressed and prepared cattle.”

“Rotating cattle has greatly assisted us in drought as we have more dry feed available and know how much feed we have in front of us. We therefore have a date in mind when we need to start culling if no rain comes.”

“The HM Course was excellent, especially considering it was tailored for individuals from the same region. This format facilitated the sharing of personal stories, and I believe that everyone who participated gained valuable insights from the experience.”

5 Benefits to industry

The key benefits identified by producers were:

1. Grazing management to ensure feed on offer is maximised especially for rangeland systems
2. Nutritional management of cattle from rangelands to backgrounding to reduce any impacts of transport
3. Build profitability and productivity across the businesses
4. Build knowledge of land stewardship (soil, plant health, management of native flora).

6 Future research and recommendations

A key area of future work is an expansion of sustained face to face extension and adoption programs (more than 2-day events) that provide critical information from previous R&D to producer groups.

Greater communication of data from MSA and processor requirements back up the supply chain to pastoralists.