

Beef cattle feedlots: design and construction

AUTHORS: Peter J. Watts¹, Rod J. Davis¹, Orla B. Keane¹, Mairead M. Luttrell¹, Robyn W. Tucker¹, Ross Stafford² and Scott Janke³

¹ FSA Consulting

² Stafford Adamson and Associates

³ Thompson Longhorn Cattle & Livestock Stockyard Handling



Disclaimer

Care is taken to ensure the accuracy of the information contained in this publication. However, Meat & Livestock Australia cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests. Meat & Livestock Australia accept no liability for any losses incurred if you rely solely on this publication. Reproduction in whole or part of this publication is prohibited without prior consent and acknowledgement of Meat & Livestock Australia.

Contact:

Meat & Livestock Australia | Level 1, 40 Mount Street. North Sydney, NSW 2060 Ph: 1800 023 100 | www.mla.com.au

Published by Meat & Livestock Australia Ltd| ABN 39 081 678 364© Meat & Livestock Australia Ltd, 2015| ISBN 9781741919165

CONTENTS OF SECTIONS

This manual takes the feedlotter and consultants through the stages of selecting a suitable site, designing the feedlot and its facilities, their construction and the overall management of the project.

In this electronic version, 48 sections are divided into four main subject groups. Each section provides the relevant technical information, and is well illustrated with figures and photographs.

Each section can be selected as required with a click of the computer mouse. High resolution pdfs allow the reader to zoom into any image to investigate detail.

Site selection

- 1. <u>Site selection</u>
- 2. <u>Site layout</u>
- 3. <u>Water supply and sources</u>
- 4. <u>Water requirements</u>
- 5. <u>Water quality</u>
- 6. <u>Energy supply and source</u>
- 7. <u>Site investigations</u>
- 8. <u>Earthworks</u>

Site design

- 9. Overall pen layout
- 10. Pen and drainage systems
- 11. <u>Sedimentation removal systems</u>
- 12. Holding pond design
- 13. <u>Access and internal roads</u>
- 14. <u>Water reticulation system</u>
- 15. Fences, gates and lanes
- 16. <u>Shade</u>
- 17. Pen and road surfaces
- 18. Pen and road stabilisation
- 19. Feeding systems
- 20. <u>Water trough design and</u> <u>sewer systems</u>

Feedlot facilities

- 21. Livestock handling
- 22. Receival and dispatch facility
- 23. Processing facility
- 24. Building over processing facility
- 25. <u>Cattle crushes</u>
- 26. Office and amenities
- 27. Truck weighbridges
- 28. Feed preparation and commodity storage
- 29. Grain processing equipment
- 30. Grain storage and handling
- 31. Commodity storage
- 32. <u>Silage</u>
- 33. Hay storage
- 34. Liquid feedstuffs
- 35. Feed mixing and delivery
- 36. <u>Hospital and recovery pens</u>
- 37. <u>Stables</u>
- 38. Fuel and gas storage
- 39. <u>Chemical storage</u>
- 40. Mechanical workshops
- 41. Cattle wash facilities
- 42. Vehicle wash down
- 43. Automatic weather stations
- 44. Covered housing systems

Project management

- 45. Feedlot construction delivery
- 46. Design drawings and technical specifications
- 47. Project tendering
- 48. Project management