1. Record Nr. UNINA9910141258403321

| | |
|---|---|
| Autore | Hill Rodney A |
| Titolo | Feed efficiency in the beef industry [[electronic resource] /] / edited by Rodney A. Hill |
| Pubbl/distr/stampa | Ames, Iowa, : Wiley-Blackwell, 2012 |
| ISBN | 1-280-77855-5<br>9786613688941<br>1-118-38824-0<br>1-118-39233-7<br>1-118-38829-1 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (329 p.) |
| Classificazione | SCI070000 |
| Altri autori (Persone) | HillRodney A |
| Disciplina | 636.2 |
| Soggetti | Cattle - Feed utilization efficiency<br>Cattle - Feeding and feeds<br>Beef industry |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Machine generated contents note: ForewordChapter 1 The cost of feeding cattle. Issues - effects of corn for ethanol production Sustained increased fuel costs Drivers for increased focus on feed efficiency. Chapter 2 How we measure feed efficiency. Old and new measurementso Their advantages and disadvantages Rationale for identifying and utilizing measures that are independent of other production traits Feeding standards and standardized testing protocol. Costs and benefits Chapter 3 The importance of both Environment and Genetics Prenatal All of life nutrition Environment x genetics Genetics Chapter 4 The Practicalities of Genetic Selection for Feed Efficiency Heritability Magnitude of natural variation Rate of progress Chapter 5 Feed Efficiency in Cow-Calf systems on rangelands and in the Feedyard: Similarities and Differences Comparison of calves fed in the growing phase versus the finishing phase o Effect of diet - high energy versus high forageo Heifers versus steers in the growing phase Chapter 6 Understanding the Role of Physiological Indicators of Feed Efficiency Hormones as indicators of growth and efficiency Non-hormone |

candidate markers of efficiency Hormone pathways / systems and how they might help us predict efficiency Chapter 7 Variation in Energy Metabolism - and mechanisms that underpin variation in feed efficiency Mitochondrial efficiency - pathways  Non- mitochondrial candidate mechanisms - AMPK / indicator of cellular energy balance. mTOR pathway - protein synthesis. Protein turnover and energy economy Chapter 8 The Potential Benefits of New Genomics Technologies The size and complexity of the genome The rationale for identifying polymorphisms Polymorphisms in junk DNA and in Biological relevant DNA such as gene promoter regions. The present technology, rate of progress and potential future benefits Chapter 9 Feed Efficiency: Interactions with other traits - potential interactions and antagonisms Reproduction and fertility Growth Carcass traits Product quality - marbling, tenderness. Chapter 10 Differences and similarities between Tropical and Temperate Breeds Growth potential and feed efficiency Genetic differences Differences in physiological indicators.Chapter 11 Novel insights from beef cattle efficiency - lessons for the dairy industry. How is RFI being studied in the context of milk production? Are there relationships between conventional RFI for growth and RFI for milk production? Do RFI (milk) cows produce calves that are RFI efficient for growth? The critical factors in determining RFI for milk production - standardization of testing / test period. Heritability and variation in RFI for milk production. The potential of RFI for milk production to improve efficiency in the dairy industry.Chapter 12 Producer Awareness and Perceptions of Feed Efficiency Findings from a National survey supported by NRIo Experience and age of managero Regional differences and similaritieso Size and type of operation Chapter 13 Overview - Lessons from the Australian Experience Broad but concise overviewo Multiple production implications - breed / management system  Physiological indicators Gold standard of measurement Chapter 14 Conclusions.

Sommario/riassunto

"Feed efficiency is increasingly seen as an important factor in both the economic viability and environmental sustainability of cattle production. This book provides beef industry professionals and researchers with a thorough yet concise overview of feed efficiency research. Coverage includes efficient production in a wide range of systems and environments, with topics ranging from economic evaluation to the physiological and genetic basis of feed efficiency. The book also looks at how a fuller understanding of feed efficiency is leading to new selective breeding efforts to develop more efficient cattle"--