Contents

Part I Overview of Direct-Fed Microbials and Prebiotics and their Interactions with the Host

1 The Commensal Microbiota ............................................................ 3
   John A. Patterson

2 Prebiotics of Plant and Microbial Origin ........................................ 13
   Brittany M. Vester Boler and George C. Fahey Jr.

3 Microbial Species Characteristics and Selection ............................. 27
   Lacey M. Guillen

4 Genomics of Probiotic–Host Interactions ....................................... 35
   Dharani K. Ajithdoss, Scot E. Dowd, and Jan S. Suchodolski

5 Effects of Prebiotics and Probiotics on the Host Immune Response ............................................................. 61
   Michael H. Kogut and Christina L. Swaggerty

Part II Current and Future Status of Practical Applications and Challenges

6 Current Status of Practical Applications: Pets .................................. 75
   Brittany M. Vester Boler and George C. Fahey Jr.

7 Current Perspectives on Probiotics in Poultry Preharvest Food Safety ................................................................. 89
   A.V.S. Perumalla, Navam S. Hettiarachchy, and Steven C. Ricke

8 Current Status of Practical Applications: Probiotics in Dairy Cattle ........................................................................ 121
   Todd R. Callaway, Tom S. Edrington, T.L. Poole, and D.J. Nisbet
9 Current and Future Status of Practical Applications: Beef Cattle
Blake K. Wilson and Clinton R. Krehbiel

10 Future Challenges of Administration of Direct-Fed Microbial Supplementation to Swine
Ellen Davis

11 Characteristics and Modification of the Intestinal Tract Microbiota of the Channel Catfish Ictalurus punctatus
Julie J. Burr, Ashley R. Clement, Edmund J. Stellwag, Gary S. Burr, and Steven C. Ricke

12 Use of Direct-Fed Microbials as a Preharvest Food Safety Intervention in Cattle
Megan E. Jacob and T.G. Nagaraja

Index
Direct-Fed Microbials and Prebiotics for Animals
Science and Mechanisms of Action
Callaway, T.R.; Ricke, S.C. (Eds.)
2012, XIV, 206 p., Hardcover