

Utilization of Probiotics and Plant Extract as Feed Additives for Safe Livestock Production

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being introduced to the farmers through the regional extension centers nationwide. The NIAS will continue its effort for related technology development and dissemination to meet the needs and interests of consumers for safe and antibiotic-free livestock products.

Key words: livestock, antibiotic alternatives, probiotics, plant extract



Abstract - Antibiotics have been used to prevent the disease and to promote the growth of the animal in livestock

industry since 1950s. However, there has always been controversy regarding the use of antibiotics as its residues remain in the final product, increase the number of antibiotic-resistant pathogens and emergence of super bacteria, etc. The European Union (EU) has banned the use of antibiotic growth promoters (AGPs) in the feed since 2006. Korea also participated this policy by reducing the usage of antibiotics in the feed since 2005 and finally banned the use of AGPs completely in 2011. Accordingly, the researchers have now been trying to find out the antibiotic replacement from various natural resources.

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National Institute of Animal Science (NIAS), RDA have been developing various antibiotic alternatives in

recent years. We developed the probiotics from the useful microbes found in the gut of pig, chicken and duck and verified the effect of them through the animal experiments. Plant extracts such as evening primrose, food processing by-product such as apple pomace, and alpha-lipoic acid are also being developed as a source of antibiotic replacements. Some of these alternatives have been applied to the farms that proved beneficial; therefore these additives are