UJI POTENSI ISOLAT BAKTERI LIGNOCHLORITIK SEBAGAI PROBIOTIK RUMEN SAPI SECARA IN VITRO

Oleh: ALVIYANI MELAYANTI (05330052)
Biology
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ABSTRACT

Forage is the main feed ruminants. In the dry season cattle breeders utilize rice straw as a substitute for forage. Rice straw contains high lignocellulose, this difficult to degrade lignin in rumen bacteria that bind to cellulose. Method Prihartini (2007) found that bacterial isolates lignochloritik BAS, TPG and BT with the capability to degrade lignin and organochlorin, besides it also has a high ability at the level of growth, production and enzyme activity in an-aerobic conditions that are expected to have potential as probiotic rumen.
This research intent to know the potential as probiotic bacteria lignochloritik cow rumen in vitro. Laboratory research was conducted in CV. Tegal Gondo Biocel Agrosolusi in Malang in October 2009 until January 2010. Type of research is a Completely Randomized Design (CRD) consisting of two factors with four replicates. Treatment of providing the type of bacteria lignochloritik and long incubation day 0, day 2, day 4, day 7 and day 14. This study is the first parameter). Antagonistic properties of bacteria lignochloritik with rumen bacteria 2). Production of laccase enzyme and 3). Laccase enzyme activity. An analysis technique that is qualitatively and quantitatively by using two-factor ANOVA and LSD (Least Significant Difference) with a 0.05 level of significance.
The results showed that the bacterial isolates lignochloritik BAS, TPG and BT is no antagonism with rumen bacteria. Enzyme production and enzyme activity is best shown by TPG bacteria, so the test results showed the potential of bacterial isolates TPG is best used as probiotic.