ABSTRACT

ATUN BUDIMAN. Microbe Isolation of Kaligesing Goat Rumen and It's Inoculation effect to Goat Rumen on digestibility of Calliandra (Calliandra calothyrsus). Under direction of SURYAHADI, KOMANG G. WIRYAWAN, and BUDI TANGENDJAJA.

Research on the isolation of tannin-digesting bacteria from the Kaligesing goat rumen and test its ability to digest tannin has been done. Isolates were obtained and then inoculated in the rumen systems goat who never consume calliandra. The study was conducted from February 1997 until September 1998. The study was conducted in four stages of research. First study, evaluating the potential of microbes in the rumen fluid of Kaligesing goats on digestibility of calliandra in vitro. A second study, bacteria isolated from Kaligesing goat rumen. A third study, evaluating the isolates in digesting tannin. The fourth study, inoculation of isolates into the rumen systems goat who never consume calliandra on digestibility calliandra in vitro. The first research results indicate that the microbes in the Kaligesing rumen goat capable of significantly better microbes digest calliandra of rumen fluid from calliandra adapted goats and goats who do not eat calliandra. The result of the second study yielded four isolates notated IK1, IK2, IK3, and IK4. The IK1 isolate die during the storage process. The third study results showed that all three isolates are able to digest condensed tannins in defined culture media. The fourth study showed that inoculation of goat rumen isolates in the system who never consume calliandra not meet expectations can enhance significantly on digestibility calliandra in vitro.

Keywords: calliandra, tannin, isolate, inoculation, digestibility