

**KECERNAAN IN VITRO COMPLETE FEED YANG DIFERMENTASI
MENGGUNAKAN STARTER *Trichoderma viride* DAN
*Lactobacillus plantarum***

**Mita Widyana
13/349230/PT/06584**

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pencernaan *in vitro complete feed* yang difermentasi menggunakan starter *Trichoderma viride* dan *Lactobacillus plantarum*. *Complete feed* yang tersusun atas 70% hijauan dan 30% konsentrat dibagi menjadi empat perlakuan: C0 (starter 0%), C1 (starter *L. plantarum* 10%), C2 (starter *T. viride* 5% + starter *L. plantarum* 5%), C3 (starter *T. viride* 10%). *Complete feed* dimasukkan ke dalam fermentor dalam kondisi anaerob dengan ulangan sebanyak tiga kali, kemudian diperam pada suhu kamar selama 21 hari. Hasil fermentasi kemudian dipreparasi untuk menentukan komposisi kimia dan diuji pencernaan *in vitro* dengan metode Tilley and Terry pada semua perlakuan. Parameter yang diamati meliputi pencernaan bahan kering, pencernaan bahan organik, dan pencernaan serat kasar. Analisis data menggunakan analisis variansi pola searah, dan untuk menentukan perbedaan nilai rerata dilakukan uji *Duncan's new multiple range* (DMRT). Hasil penelitian menunjukkan *complete feed* yang difermentasi menggunakan campuran 5% *T. viride* dan 5% BAL maupun 10% *T. viride* mampu meningkatkan KcSK berturut-turut sebesar 30,87% dari 27,60% ke 36,12% dan sebesar 26,36% dari 27,60% ke 35,65%, namun belum mampu meningkat KcBO dan KcBK. Dengan demikian, penggunaan campuran starter *T. viride* 5% dan BAL 5% dapat menjadi pilihan penggunaan starter karena memiliki KcSK yang lebih tinggi.

(Kata kunci : *Complete feed* fermentasi, *Trichoderma viride*, *Lactobacillus plantarum*, pencernaan *in vitro*)

IN VITRO DIGESTIBILITY OF FERMENTED COMPLETE FEED WITH *Trichoderma viride* AND *Lactobacillus plantarum* STARTER

**Mita Widyana
13/349230/PT/06584**

ABSTRACT

This research aimed to determine the in vitro digestibility of fermented complete feed with *Trichoderma viride* and *Lactobacillus plantarum* starter. Complete feeds are composed of 70% forages and 30% concentrates divided into four treatments: C0 (0% starter), C1 (10% *L. plantarum* starter), C2 (5% *T. viride* starter + 5% *L. plantarum* starter), C3 (10% *T. viride* starter). Complete feed was filled into the fermentor under anaerobic conditions with three replication for each treatments, then incubated at room temperature for 21 days. The fermentation product then prepared to determine the chemical composition and in vitro nutrients digestibility by the Tilley and Terry method. The parameters observed included dry matter digestibility, organic matter digestibility, and crude fiber digestibility. The data were analyzed by analysis of variance with one way design, and to determine the difference between mean values, Duncan's new multiple range (DMRT) test was performed. The results showed that the addition of 5% *T. viride* and 5% LAB starter as well as 10% *T. viride* starter into complete feed fermentation increased crude fiber digestibility respectively 30,87% from 27,60% into 36,12% and 26,36% from 27,60% into 35,65%, but had no significant effect on the digestibility of dry matter and organic matter. Therefore, the addition of 5% *T. viride* and 5% LAB starter can be the option for starter in complete feed fermentation due to its higher crude fiber digestibility.

(Keywords : Fermented complete feed, *Trichoderma viride*, *Lactobacillus plantarum*, in vitro digestibility)