

Title: EVALUATION OF USING EXHAUSTED COMPOSITE OF PRODUCTION OF *Pleurotus ostreatus* AS SOURCE FOR FEEDING RUMINANTS.

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Abstract:

The continuous increase in population has surpassed the production of foods such as quantity and quality needed to supply the entire population. Therefore, it is necessary to research and improve production systems, so that they will be economically, socially and environmentally efficient. Given the current necessity of improving production systems and to evaluate the process of creating beef cattle, it is seen that feeding has a main part in the breeding costs. Although animal performance depends on genetical and environmental features, it is known that dietary efficiency performs an important role on animal developing. In this context, it has encouraged the search for efficient and economic feed animals to provide the necessary nutrients for the physiological process of interest (such as meat, milk and wool production). Nowadays, research has been done to evaluate lignocellulosic by-products and wastes to be used as low cost protein sources. However, these wastes have content of crude protein from 1% to 20% depending on the chosen material. Therefore, it is necessary to do bromatological analysis to find the centesimal composition of the material and ensure an adequate formulation of ration to the ruminant. The present work aims to determine the dry matter (DM), crude protein (CP), ethereal extract (EE) and ash of exhausted composite samples from two strains of *P. ostreatus* collected in a mushroom compounds and production company located in Mogi Guaçu - SP. The two strains of *P. ostreatus* (strain A and B) were kindly provided by the spawn production company located in Valinhos-SP. To determine EE, it was weighed approximately 1.5 g of the samples to promote the extraction of the lipid material in device "Soxhlet" for 4 hours. The samples were extracted using 95% n-hexane. To determine ashes it was used about 0.5 g of which samples, then were placed in muffle for 5 hours at a temperature of 570 °C. Crude protein determination was performed using the methodology proposed by Kjeldahl. All the analyses were made in triplicate. The sample A presented values of 1.20% for EE, 60.6% for MM, 75.2% for DM and 9.06% for CP. The sample B presented values of 1.65% for EE, 74.43% for MM, 75.50% for MS and 10.09% for CP. The data suggest that both strains selected for colonization of the substrate promoted an interesting biotransformation that resulted in a nutritional quality increasing of the final substrate showing a potential to be used in animal feed.

Keywords: *Pleurotus ostreatus*, exhausted composite, feed ruminants.

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