Penambahan Molases Untuk Meningkatkan Kualitas Amoniasi Jerami Padi dan Pengaruhnya terhadap Produk Fermentasi Rumen Secara In-Vitro

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Author Order	1 of 2
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Abstract	Supplementation of molasses to improve the quality of rice straw ammonization and its effect on fermentation product in-vitroABSTRACT. Aimed of this research was to find out the optimal level of molasses addition at straw rice ammonization process to N-NH3 production, VFA and microbe protein synthesis. Material used was rumen fluid of fistula cattle, rice straw, water, urea and molasses. Treatment tried was level of molasses addition 0%, 15% and 30% on rice straw which given urea. Research was carried out by experimental method as in vitro, was conducted use completely randomized design. Variable measured were N-NH3, VFA and microbe protein synthesis. Intake data entered in data tabulation and analyzed variance then continued by orthogonal polynomial test. Research result after ammonization indicated that acidity level and concentration of released NH3 decrease parallel with addition of molasses level, and also increase the nutrient content which was crude protein increase and crude fiber decrease. Variance analysis and Test of orthogonal polynomial result indicated that treatment of molasses addition have highly significant effect (P0.01) and linier respond to concentration of released NH3 after ammonization. Research result as in vitro indicated concentration N-NH3 and VFA total decrease while microbe protein synthesis increase. Variance analysis result indicated that molasses addition treatment at straw rice ammonization process have highly significant (P 0.01) on concentration of N-NH3, VFA total and Microbe Protein Synthesis. Test of orthogonal polynomial for molasses addition at straw rice ammonization process indicated linier respond on concentration of NH3 N-NH3 and VFA total, but microbe protein synthesis quadratic had respond (P 0,01) white regression equation Y= 52.187-1.089222X + 0.11X2 (r2) 87.27 and (r) 0.9341. Research result could conclude that molasses addition up to level 30% able to improve quality of straw rice ammonization process by NH3 fixation so that increase nutrient ingredient, decrease NH3 that lost to atmosphere, improve utilization of N-NH3 and VFA and also increase microbe protein synthesis.
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Author	Dr Ir MUHAMAD BATA, MS