PENGARUH MACAM INOKULUM TERHADAP KANDUNGAN

NUTRIEN JERAMI PADI FERMENTASI

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INTISARI *)

Penelitian ini bertujuan untuk mengetahui pengaruh berbagai macam inokulum terhadap kandungan nutrien jerami padi fermentasi. Penelitian ini telah dilakukan dalam dua tahap, tahap pertama yaitu proses fermentasi dan tahap kedua analisis proksimat di Laboratorium Kimia Fakultas Agroindustri Universitas Mercu Buana Yogyakarta selama 5 minggu dimulai pada 22 Maret − 26 April 2018. Materi yang digunakan meliputi jerami padi, inokulum (S, E, dan R), molases dan bekatul sebagai akselerator. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) atau *Completely Randomizet* (CRD) pola searah dengan 4 perlakuan dan 3 kali ulangan. Perlakuan yang digunakan yaitu penambahan inoklum J0 (tanpa inokulum), J1 (inokulum "S"), J2 (inokulum "E"), dan J3 (inokulum "R"). Variabel yang diamati adalah kadar air, kadar protein kasar, kadar serat kasar, kadar lemak kasar, kadar abu dan kadar BETN. Data yang diperoleh kemudian dianalisis menggunakan *Analysis Of Variance* (ANOVA), bila berbeda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian analisis kimia menunjukkan rerata kadar air J0: 5,77%, J1: 6,81%, J2: 7,34%, dan J3: 6,33%. Kadar protein kasar: J0: 7,25%, J1: 8,90%, J2: 9,00%, dan J3: 8,37%. Kadar serat kasar: J0: 22,71%, J1: 17,39%, J2: 17,50%, dan J3: 18,05%. Kadar lemak kasar: J0: 3,31%, J1: 2,58%, J2: 2,22%, dan J3: 3,13%. Kadar abu: J0: 25,65%, J1: 27,61%, J2: 27,24%, dan J3: 28,04%. Dan BETN: J0: 41,08%, J1: 43,51%, J2: 44,03%, dan J3: 42,40%. Berdasarkan hasil *Analysis Of Variance* (ANOVA) menunjukkan bahwa penambahan berbagai macam inokulum 0,6% berpengaruh sangat nyata $(P<0,01)$ terhadap semua variabel. Disimpulkan bahwa penambahan inokulum E mendapatkan hasil nutrien jerami padi fermentasi paling baik dibanding inokulum S dan R.

Kata kunci : Jerami padi, Inokulum, Fermentasi, Nutrien.

THE EFFECT OF THE INOCULUM KIND ON NUTRIENT

CONTENT OF FERMENTED RICE STRAW

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ABSTRACT *)

The purpose of this research was to determine effect of inoculums kind on fermented rice straw nutrients. This research had been conducted in two stages, the first stage was the process of fermentation and the second stage was proximate analysed in Chemical Laboratory of Agroindustry Faculty of Mercu Buana University Yogyakarta for 5 weeks from March 22th up to April 26th. Material used were rice straw, S, E, and Y as inoculums, molases and also rice bran as accelerator. The research used a completely randomized design with 4 treatments and 3 repetitions. The treatments used are the addition of inoculum J0 (without inoculum), J1 (inoculum "S"), J2 (inoculum "E"), and J3 (inoculums "Y"). The observed variables are water content, crude protein content, crude fiber content, crude fat content, ash content, and BETN content. The date analyzed using Analysis of Variante (ANOVA), followed by New Duncan's New Multiple Range Test (DMRT). The result of the research chemical analysed showed that average water content J0: 5,77%, J1: 6,81%, J2: 7,34%, and J3: 6,33%. crude protein content J0: 7,25%, J1: 8,90%, J2: 9,00%, and J3: 8,37%. crude fiber content J0: 22,71%, J1: 17,39%, J2: 17,50%, and J3: 18,05%. crude fat content J0: 3,31%, J1: 2,58%, J2: 2,22%, and J3: 3,13%. ash content J0: 25,65%, J1: 27,61%, J2: 27,24%, and J3: 28,04%. BETN content J0: 41,08%, J1: 43,51%, J2: 44,03%, and J3: 42,40%. Analysis of Variance (ANOVA) test indicated that addition kind inoculum 0,6% was significantly (P<0,01) on all variables. It can be concluded that addition E inoculum get results nutrient content of fermented rice straw is the best compared S and Y inoculums.

Keywords : rice straw, inoculums, fermentation, nutrient