PENGARUH PENGGUNAAN PEREKAT SINTETIS TERHADAP KUALITAS FISIK RANSUM AYAM BROILER

The Effect of Using Syntetic Binder on Physical Quality of Chicken Ration

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ABSTRACT

The purpose of this study was learn about the influence added lignosulfonate and bentonite by some processes production on physical characteristics of pellet form ration. The experimental design had used a Randomized Completely Design with 4 x 3 factorial and 3 replocats. Factor A were processes production, i.e : A0 = without processing, A1 = added 5% water spraying, A2 = added 5% hot water spraying and A3 = steam 45 minute on 100^0C and pressure 1.7-1.8 kg/cm^2. Factor R were added binder, i.e: R0 = control ration, R1 = control ration + 1.25% lignosulfonate and R2 = control ration + 2.5% bentonite. The parameters observed were water content, specific weght, specific density, packed specific density, angle of repose, particle size, water activity and durability of pellet.

Resul from this study showed some steam process by autoclave 45 minute and added binder lignosulfonate and bentonite was obviously influence specific weight, specific density, packed specific density, angel of repose, particle size, water activity and durability of pellet by percentage was 0.67 cm, 0.68 g/cm^3, 0.75 g/cm^3, 1.57 g/cm^3, 26.99^0, even the water activity 0.81 wasn't good. Added binder lignosulfonate and bentonite was obviously particle size was 0.67 cm and durability of pellet was 99.99%. Added lignosulfonate and bentonite by some process given the best on durability if it compared with commercials ration.

The purpose of this study was to learn about the effect of using binder lignosulfonate and bentonite during six weeks period. The experimental design used a Randomized Completely Design with 3 x 4 factorial and 3 replications. Factor B was storage term (0. 2. 4 and 6 weeks). The parameters observed were water contant, water activity factor higroskopic, particle size, specific density, bulk density, packed bulk density and pellet durability. The storage term very significant ($P<0.01$) influenced the water content and increased the water activity, decreased the factor higroskopic, particle size, specific density, bulk density, packed bulk density and durability of pellet. The lowest water content was 10.82% in 6 weeks. The lowest water activity was 0.74 in 0 week. The highest particle size was 0.669 cm in 0 week. The highest durability of pellet was 99.95% in 0 week. The highest specific weight was 1.30 g/cm^3 in 2 weeks. The highest specific density was 0.738 g/cm^3 in 0 week. The highest packed density was 0.738 g/cm^3 in 0 week and the lowest factor higroskopic was 0.79% in 2 weeks.