

**COMBINATION EFFECTS OF TAMARIND INFUSUM (*Tamarindus indica L.*) AND EM4 PROBIOTICS ON BROILER PERFORMANCE**

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**ABSTRACT**

EM4 Probiotics have been known to improve the performance of broiler chickens. Asam Jawa has a high organic acid content so that it has the potential to be used as acidification in the digestion of broiler chickens. This study aimed to examine the effect of giving a combination of tamarind infusion (*Tamarindus indica L.*) and probiotic EM4 in drinking water to the performance of broiler chickens. This study used 25 chicks that 2 weeks old, complete feed produced by PT. Indonesian Gold Coin and combination of tamarind infusum (*Tamarindus indica L.*) and probiotic EM4. This study used a completely randomized design (CRD) of five treatments and five replications with treatment. P0: Control, 100% basal feed (Starter and Finisher) without treatment, P1: Basal feed + 0 g/l (0 dose, Tamarind infusum 0%) + 1 ml/l Probiotics, P2: Basal feed + 3 g/l (0,5 dose, Tamarind infusum 0.3%) + 1 ml/l Probiotics, P3: Basal feed + 6 g/l (1 dose, Tamarind infusum 0,6%) + 1 ml/l Probiotics, P4: Basal feed + 9 g/l (1,5 dose, Tamarind infusum 0,9%) + 1 ml/l Probiotics, the treatment was done for 21 days. The variables observed were feed consumption, body weight gain, feed conversion and IOFC. Significantly different treatments were tested further using Duncan's multiple range test (DMRT). Based on the results on feed consumption, body weight gain, feed conversion and IOFC significantly different ( $P < 0.05$ ). This proves the addition of tamarind infusion (*Tamarindus indica L.*) and probiotic EM4 in drinking water can optimize the performance of broiler chickens.

**Key words** : Broiler chicken, tamarind infusion, EM4 probiotics, feed consumption, body weight gain, feed conversion, IOFC.