

ABSTRAK

OPTIMASI PENAMBAHAN *DISTILLERS DRIED GRAINS WITH SOLUBLES* (DDGS) DAN TAURIN DALAM PAKAN BERBASIS TEPUNG TULANG DAN DAGING TERHADAP PERFORMA PERTUMBUHAN DAN KADAR GLUKOSA DARAH BENIH IKAN GABUS *Channa striata* (BLOCH, 1793)

Oleh

RUTMAIDA BORU HOMBING

Saat ini para pembudi daya masih menggunakan bahan dasar tepung ikan dalam pakan buatan, namun permintaan tepung ikan yang terus meningkat membuat ketersediaannya tidak selalu terpenuhi. Pakan buatan berbahan dasar tepung ikan dapat disubstitusi dengan suplementasi tepung MBM dan DDGS dalam formulasi, akan tetapi kandungan asam amino dan daya cerna DDGS terbatas, sehingga perlu tambahan taurin untuk mengatasi hal tersebut. Tujuan dari penelitian ini adalah mengkaji performa pertumbuhan dan kadar glukosa darah benih ikan gabus dengan penambahan DDGS fermentasi, MBM dan taurin dalam pakan. Rancangan penelitian yang digunakan yaitu rancangan acak lengkap (RAL) yang terdiri dari 6 perlakuan: P1 (Ti 16%, MBM 19%, DDGS 0%, dan taurin 0%) P2 (Ti 0%, MBM 34,7%, DDGS 10% , dan taurin 0%), P3 (Ti 0%, MBM 34,7%, DDGS 5%, dan taurin 0,5%) P4 (Ti 0%, MBM 34,7%, DDGS 10%, dan taurin 0,5%) P5 (Ti 0%, MBM 34,7%, DDGS 15%, dan taurin 0,5%) dan P6 (Ti 0%, MBM 34,7%, DDGS 20%, dan taurin 0,5%). Hewan uji yang digunakan adalah benih ikan gabus dengan panjang awal $5,63 \pm 0,22$ cm dan berat awal $1,47 \pm 0,33$ g yang dipelihara selama 45 hari, pengambilan data dilakukan pada awal dan akhir pemeliharaan. Hasil penelitian menunjukkan pemberian tepung DDGS, MBM, dan taurin dalam pakan memberikan pengaruh yang beda nyata terhadap pertumbuhan berat mutlak, pertumbuhan panjang mutlak, laju pertumbuhan spesifik, efisiensi pakan, tingkat kelangsungan hidup, rasio konversi pakan, dan kadar glukosa darah benih ikan gabus ($P < 0,05$). Kesimpulan dari penelitian ini adalah pengaruh penambahan tepung DDGS fermentasi dan taurin 0,5% dalam pakan berbasis MBM berbeda nyata terhadap performa pertumbuhan dan tidak berbeda nyata terhadap kadar glukosa darah benih ikan gabus. Perlakuan terbaik terdapat pada P3 yaitu MBM 34,7%, DDGS 5%, dan taurin 0,5%.

Kata kunci: *Distillers dried grain with solubles* (DDGS), taurin, benih ikan gabus, pertumbuhan, kadar glukosa darah

ABSTRACT

THE OPTIMIZATION OF DISTILLERS DRIED GRAINS WITH SOLUBLES (DDGS) AND TAURINE ADDITION IN MEAT & BONE MEAL BASED FEED ON GROWTH PERFORMANCE AND BLOOD GLUCOSE LEVELS OF SNAKEHEAD FISH *Channa striata* (BLOCH, 1793)

By

RUTMAIDA BORU HOMBING

Currently, farmers still use fishmeal as the base ingredient in feed, but the increasing demand for fishmeal means that the availability is not always fulfilled. Fishmeal-based feed can be substituted by supplementing MBM and DDGS flour in the formulation, but the amino acid content and digestibility of DDGS are limited, so additional taurine is needed to overcome this. The purpose of this study was to examine the growth performance and blood glucose levels of snakehead fish seed with the addition of fermented DDGS, MBM, and taurine in feed. The research design used was a complete randomized design (CRD) consisted of 6 treatments: P1 (Ti 16%, MBM 19%, DDGS 0%, and taurine 0%) P2 (Ti 0%, MBM 34,7%, DDGS 10%, and taurine 0%), P3 (Ti 0%, MBM 34,7%, DDGS 5%, and taurine 0,5%) P4 (Ti 0%, MBM 34,7%, DDGS 10%, and taurine 0,5%) P5 (Ti 0%, MBM 34,7%, DDGS 15%, and taurine 0,5%) and P6 (Ti 0%, MBM 34,7%, DDGS 20%, and taurine 0,5%). The test animals used were snakehead fish seed with an initial length of $5,63 \pm 0,22$ cm and an initial weight of $1,47 \pm 0,33$ g which were reared for 45 days, data collection was carried out at the beginning and end of reared. The results showed that the addition of DDGS flour, MBM, and taurine in the feed gave a significantly different effect on absolute weight growth, absolute length growth, specific growth rate, feed efficiency, survival rate, feed conversion ratio, and blood glucose levels of snakehead fish seed ($P < 0,05$). The conclusion of this study here the addition of fermented DDGS flour and 0,5% taurine in bone meal and meat based feed affected growth performance and had no effect on blood glucose levels of snakehead fish seed. The best treatment was P3, which was 34,7% MBM, 5% DDGS, and 0,5% taurine.

Keywords: Distillers dried grain with solubles (DDGS), taurine, snakehead seed, growth, blood glucose level.