

**PENGARUH PENGGUNAAN STARTER HASIL BIAKAN EM-4
(Effective Microorganism 4) TERHADAP KUALITAS
BIOKULTUR FESES SAPI POTONG**

**Ahmad Setiawan
08/269529/ PT/ 05468**

INTISARI

Penelitian ini dilakukan untuk mengetahui pengaruh penggunaan starter hasil biakan EM-4 terhadap kualitas biokultur feses sapi potong. Penelitian ini dilakukan di Laboratorium Ternak Potong Kerja dan Kesayangan dan Laboratorium Teknologi Hasil Ikutan dan Lingkungan Fakultas Peternakan UGM. Perlakuan penelitian meliputi biokultur feses sapi potong tanpa penambahan bioaktivator (P0), penambahan EM-4 (P1) dan penambahan Starter hasil biakan EM-4 (P2). Parameter yang diamati meliputi parameter fisik, kimia, mikrobiologi dan biologi. Parameter fisik biokultur meliputi warna, bau, pH dan kekeruhan. Parameter kimia biokultur meliputi kandungan Nitrogen, C-Organik, rasio C/N, fosfor dan kalium. Parameter biologi meliputi produktivitas tanaman bayam yang terdiri dari tinggi tanaman, jumlah daun dan panjang akar. Parameter mikrobiologi meliputi jumlah koloni mikrobia yang terdapat dalam biokultur dengan metode TPC (*Total Plate Count*). Hasil pengamatan menunjukkan penggunaan starter hasil biakan EM-4 pada biokultur feses sapi potong memberikan pengaruh nyata ($P < 0,05$) terhadap kadar C-organik, Bahan organik, fosfor dan kalium. TPC (*Total Plate Count*) biokultur tiap perlakuan tidak menunjukkan perbedaan yang nyata.

Kata kunci: Feses sapi potong, Biokultur, Hasil biakan EM-4, Kualitas kimia

**EFFECT OF ADDITION ACTIVATED EM-4 (*Effective microorganism 4*)
STARTER TO THE QUALITY OF BEEF CATTLE FECES
BIOCULTURE**

**Ahmad Setiawan
08/269529/ PT/ 05468**

ABSTRACT

This research was conducted to investigate the effect of use a starter culture of EM-4 on the quality of beef cattle feces bioculture. This research was performed in Meat, Draught, and Companion Animals Laboratory and Technology of Animal By-product and Environment Laboratory. Parameters was used biocultural without addition of bio-activator (P0), the addition of EM-4 (P1) and the addition of starter culture results EM-4 (P2). Parameters observed were physical parameters, chemical, microbiological and biological. the physical parameters of biocultural consist of colour, smell, pH and turbidity. the chemical parameters of biocultural consist of nitrogen content, C-Organic, C / N ratio, phosphorus and potassium. Biological parameters consist of height of plant, leaf number and root length spinach. Number colonies microbes of microbiological parameters contained in biocultural with TPC (Total Plate Count) method. The results showed a starter culture of EM-4 in beef cattle feces biocultural give effect on levels of C-organic, organic material, phosphorus and potassium. TPC (Total Plate Count) biocultural each treatment showed no significant differences.

Key words: Feces of beef cattle , Bioculture, Culture of EM-4, Chemical quality