

**KUALITAS BERAS BERPIGMEN SELAMA PENYIMPANAN DENGAN
INFESTASI SERANGGA HAMA DAN PEMBERIAN
ZAT PENOLAK ALAMI**

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INTISARI

Beras yang sering dikonsumsi masyarakat adalah beras putih, namun sebagian masyarakat telah mengkonsumsi beras berpigmen karena mempunyai banyak manfaat. Penyimpanan bahan pangan merupakan aspek penting, apabila tidak terkontrol akan menurunkan kualitas dan kuantitas beras berpigmen. Penurunan kualitas beras berpigmen dapat disebabkan oleh proses biologi karena adanya cendawan, tungau, dan kutu beras. Salah satu spesies hama yang dapat ditemukan dalam beras adalah *Tribolium castaneum*. Pengendalian hama gudang biasanya menggunakan bahan kimia, namun saat ini sudah dikembangkan menggunakan zat penolak bahan alami. Penelitian ini bertujuan untuk mengetahui pengaruh lama penyimpanan dan pemberian daun jeruk purut kering dan daun belimbing wuluh kering terhadap populasi serangga hama, serta pengaruh lama penyimpanan dan adanya populasi serangga hama terhadap kualitas fisik dan kimiawi beras berpigmen. Beras berpigmen disimpan selama 1 dan 3 bulan dalam toples dan diinfestasikan 3 pasang *Tribolium castaneum*, kemudian diberi zat penolak daun jeruk purut kering dan daun belimbing wuluh kering 1 dan 3 gram. Hasil menunjukkan toples beras berpigmen bulan pertama didominasi oleh larva, sedangkan bulan ketiga toples didominasi oleh populasi imago. Zat penolak yang diberikan tidak berpengaruh nyata terhadap keberadaan populasi serangga hama beras. Lama penyimpanan 1 dan 3 bulan, serta keberadaan populasi serangga hama dapat menurunkan kualitas fisik beras berpigmen seperti susut bobot 3,07%, bau 17,45%, dan warna 16,25%, namun tidak mempengaruhi kualitas kimiawi beras berpigmen seperti pada total fenol dan total antosianin.

Kata kunci: Kualitas, Beras berpigmen, Penyimpanan, Serangga, Penolak.

QUALITY OF PIGMENTED RICE DURING STORAGE WITH PEST INSECT INFESTATIONS AND NATURAL REPELLENT TREATMENT

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ABSTRACT

In general, people often consume white rice, but some start consume pigmented rice. This is due to many benefits for health. Storage of food is an important aspect, if uncontrolled will reduce the quality and quantity of pigmented rice. Decreasing the quality of pigmented rice can be caused by biological processes due to the fungus, mites, and lice. One of the pest species found in rice is *Tribolium castaneum*. Warehouse pest control usually uses chemicals, but now it has been developed using natural substances. The purpose of this research are to know the effect of long storage with giving of dried lime leaves and dried bilimbi fruits leaves towards pest insect population, and the long of storage and presence pest insect population towards physical and chemical quality of pigmented rice. The pigmented rice was stored for 1 and 3 months in the jar and infected by 3 pairs of *Tribolium castaneum*, then gived to dried lime leaves and dried leaves of bilimbi fruits 1 and 3 grams. The results show the jar of first-month pigmented rice is dominated by larvae, while the third month of jars is dominated by the imago population. The repellent agent has no significant effect on populations of pest insect. The storage period of 1 and 3 months, and the presence of pest insect population can decrease the physical quality of pigmented rice such as weight loss 3,07%, smell 17,75%, and color 16,25%, but it does not affected to chemical quality of pigmented rice in total phenol and total anthocyanin.

Keywords: Quality, Pigmented rice, Storage, Insect, Repellent.