Penggunaan Matriconditioning dan Minyak Atsiri terhadap Peningkatan Mutu Benih Padi (Oryza sativa L.) Kadaluarsa pada Stadia Perkecambahan.
Use of Matriconditioning and Essential Oils for Rice (Oryza sativa L.) Seed Quality Improvement Expired on Germination Stadia.
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ABSTRACT

Matricondotioning and essential oil is the treatment of seeds before planting which can improve the quality of rice (Oryza sativa L.) seeds that have experienced a decline in quality due to expiration. The purpose of this research was to determine the effect of matricontioning materials and types of essential oils on improving the quality of rice seeds which had expired for 16 months. This research was conducted in Juni - August 2018 at the Center for Biosain Laboratories and the Seed Production Laboratory State Polytechnic of Jember, Jember Regency, East Java.This research use Factorial Completely Randomized Design (RAL) with 2 factors and 4 replications. The first factor is matriconditioning material which consists of 3 levels, namely C1 = husk charcoal, C2 = sawdust and C3 = rice straw. The second factor is the type of essential oil which consists of 3 levels, namely M1 = without essential oil, M2 = clove oil and M3 = lemongrass oil. Results from research shows that the best treatment to increase germination is C2M2 treatment = 63.06%, Growing speed is C2M2 treatment = 12.62% /etmal, the simultaneous growth is C2M2 treatment = 60.63%. The best treatment to reduce the percentage of seeds attacked by fungi and bacteria is C3M3 treatment = 18.75%, the speed of fungi and bacteria attacking the seed is C3M2 treatment = 3.50% / etmal, spore density is C3M1 = 1.10 x108, and bacterial density is the treatment of C3M0 = 0.014.

Key words *: matricondotioning, essential oil, rice seed quality*