

**PERTUMBUHAN DAN HASIL DUA VARIETAS TANAMAN CABAI MERAH
(*Capsicum annum* L.) DENGAN APLIKASI AGEN HAYATI**

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ABSTRAK

Tujuan Penelitian adalah (1) Menentukan interaksi agen hayati dengan varietas cabai merah yang mampu meningkatkan pertumbuhan dan hasil paling tinggi, (2) Menentukan varietas cabai merah yang memiliki pertumbuhan dan hasil paling baik, dan (3) Menentukan agen hayati yang paling sesuai untuk meningkatkan pertumbuhan dan hasil tanaman cabai merah. Penelitian ini dilakukan di Desa Bener, Kecamatan Ngrampal, Kabupaten Sragen. Metode penelitian ini menggunakan rancangan Split Plot, memiliki dua faktor yang diulang tiga kali. Main plot terdiri dari varietas tanaman cabai TM 999 dan MB 333. Sub plotnya terdiri dari kontrol, *Trichoderma harzianum*, *Beuveria bassiana*, Mikoriza dan *Trichoderma harzianum* + *Beuveria bassiana* + Mikoriza. Data yang diperoleh dengan *Analysis of Variance* (ANOVA) pada taraf 5%, jika terdapat beda nyata dilanjutkan dengan *Duncan Multiple Range Test* (DMRT) pada taraf uji 5%. Hasil penelitian ini ditunjukkan bahwa (1) Terdapat interaksi antara kombinasi perlakuan MB 333 dan *T. harzianum* + *B. bassiana* + Mikoriza (V2A4) yang memiliki tinggi tanaman paling tinggi dan kombinasi perlakuan MB 333 dan *B. bassiana* (V2A2) memiliki jumlah bobot buah bersih yang paling berat, (2) Penggunaan MB 333 memiliki pertumbuhan dan hasil paling baik, (3) Pengaruh pemberian *B. bassiana* memiliki hasil buah paling banyak.

Kata Kunci : *Trichoderma harzianum*, *Beuveria bassiana*, Mikoriza, TM 999, MB 333, Pertumbuhan dan Hasil

**GROWTH AND YIELD OF TWO VARIETIES OF RED CHILLI PLANTS
(*Capsicum annum* L.) WITH APPLICATION OF BIOLOGICAL AGENTS**

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ABSTRACT

Research objectives are (1) Determine the interaction of biological agents with red chili varieties that are able to increase growth and yield the highest, (2) Determine the varieties of red chili peppers that have the best growth and yield, and (3) Determine

the most suitable biological agents to increase the growth and yield of red chili plants. This research was conducted in Bener Village, Ngrampal Subdistrict, Sragen Regency. This research method, using the split plot design, has two factors repeated three times. The main plot consists of varieties of chili plants TM 999 and MB 333. The sub plot consists of control, *Trichoderma harzianum*, *Beuveria bassiana*, Mikoriza and *Trichoderma harzianum* *Beuveria bassiana* Mikoriza. Data obtained with Analysis of Variance (ANOVA) at the level of 5%, if there is a real difference continued with duncan multiple range test (DMRT) at the test level of 5%. The results of this study showed that (1) There was an interaction between the combination of mb 333 and *T. harzianum* *B. bassiana* Mikoriza (V2A4) treatments that had the highest plant height and the combination of treatments MB 333 and *B. bassiana* (V2A2) had the heaviest amount of net fruit weight, (2) Mb 333 use had the highest plant growth, (3) The effect of administering mycorrhizes was best for the increase in the number of flowers in red chili.

Keywords : *T. harzianum*, *B. bassiana*, Mycorrhiza, TM 999, MB 333, Growth and Yield.