

## ABSTRAK

**Asep Hilman. 2020. Pengaruh Benih Penjenis Kentang (*Solanum tuberosum* L.) dan Media Tanam Terhadap Pertumbuhan dan Hasil Benis Dasar dengan Teknik Hidroponik Substrat. Di bawah bimbingan Dr. H. Suryaman Binardi dan Budy Frasetya T.Q.**

Ketersediaan Benih dasar (G0) mampu menentukan jumlah produksi tanaman kentang di Indonesia. Benih dasar masih terbatas, hal tersebut dikarenakan kurangnya penerapan pertanian modern petani Indonesia. Sistem hidroponik substrat dengan media tanam yang tepat mampu meningkatkan produksi Benih dasar (G0), sehingga mampu menambah ketersediaan benih kentang di Indonesia. Penelitian ini bertujuan untuk mengetahui adanya interaksi atau tidak pada perlakuan taraf benih penjenis kentang (BS) dan taraf media tanam serta mengetahui interaksi terbaik terhadap hasil dari kombinasi perlakuan. Penelitian ini telah dilaksanakan di Rumah Kasa Insani Agro Samesta Margamulya, Pangalengan, kab. Bandung pada tanggal 14 Juni – 29 November 2017. Metode yang digunakan adalah Rancangan Acak Lengkap (RAL) Faktorial dengan dua faktor, faktor pertama adalah berbagai taraf Benih Penjenis (BS) ( $b_1$  = benih berupa umbi mikro;  $b_2$  = benih berupa Stek;  $b_3$  = benih berupa Planlet) dan faktor kedua adalah taraf media tanam ( $m_1$  = arang sekam;  $m_2$  = cocopeat;  $m_3$  = tanah subsoil;  $m_4$  = campuran arang sekam dan cocopeat (50:50)) sehingga terdapat 12 kombinasi perlakuan yang diulang tiga kali. Uji lanjut yang digunakan adalah Uji Jarak Berganda Duncan (UJBD). Hasil penelitian menunjukkan bahwa terjadi interaksi antara berbagai taraf Benih Penjenis (BS) dan media tanam pada parameter tinggi tanaman, bobot segar tanaman, jumlah umbi, dan bobot umbi pertanaman, serta terjadi efek mandiri pada perlakuan Benih Penjenis (BS) terhadap bobot kering tanaman dan efek mandiri terjadi pada perlakuan media tanam dan Benih Penjenis (BS) terhadap Nisbah Pupus Akar (NPA).

**Kata Kunci:** Hidroponik substrat, Benih Kentang G0, Media Tanam, Interaksi, Respons

## ABSTRACT

**Asep Hilman. 2020. Effect of Basic Seeds Potatoes (*Solanum tuberosum* L.) And Planting Media Against Growth and Base Type Results by Hydroponic Substrate Technique. Supervised by Dr. H. Suryaman Binardi and Budy Frasetya T.Q.**

Basic seeds (G0) is able to determine the amount of potato crop production in Indonesia. Basic seeds is still very limited due to lack of knowledge of the application of modern agriculture to Indonesian farmers. Substrate hydroponic system with appropriate planting media can increase basic seeds production (G0), so as to increase the availability of potato seeds in Indonesia. This study aims to determine whether there is interactions or not on the treatment of the level of the basic seed (BS) and the level of the planting medium and knowing the best interaction with the results of the combination treatment. This research was conducted at Insani Agro Samesta Green House Margamulya, Pangalengan, district. Bandung on June 14 - November 29, 2017. The method used was Factorial Completely Randomized Design with two factors, the first factor is the various levels of the Basic Seed (BS) ( $b_1$  = seeds in the form of micro tubers;  $b_2$  = seeds in the form of cuttings;  $b_3$  = seed in the form of Planlet) and the second factor is the level of the planting medium ( $m_1$  = husk charcoal;  $m_2$  = cocopeat;  $m_3$  = subsoil soil;  $m_4$  = mixture of husk and cocopeat charcoal (50:50)) so that there are 12 treatment combinations repeated three times. The further test used was Duncan's Multiple Range Test (DMRT). The results showed that there were interactions between various levels of the Basic Seed (BS) and planting media on parameters of plant height, plant fresh weight, tubers number, and tuber weight of crop, and independent effect occurs on the treatment of Basic Seed (BS) on plant dry weight and independent effect occurs on the treatment of planting medium and Basic Seed effects shoot root ratio.

Keywords: Hydroponic substrate, G0 Potato Seed, Growing Media, Interaction, Respons