

INTISARI

PERTUMBUHAN DAN HASIL SELADA (*Lactuca sativa* L.) HIDROPONIK DIPERKAYA Fe

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Zat besi (Fe) merupakan salah satu mineral yang penting bagi manusia, terutama bagi perempuan. Manusia perlu mengonsumsi pangan dengan kandungan Fe yang tinggi untuk memenuhi kebutuhan manusia terhadap zat besi. Oleh karena itu, perlu dilakukan penelitian tentang peningkatan kandungan Fe pada bahan pangan. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan Fe pada larutan nutrisi terhadap pertumbuhan, hasil, dan kandungan Fe pada tanaman selada (*Lactuca sativa* L.). Penelitian ini dilaksanakan di rumah kaca Jurusan Tanah, Fakultas Pertanian, Universitas Gadjah Mada mulai bulan September-November 2011. Rancangan yang digunakan adalah Rancangan Acak Kelompok Lengkap yang disusun dalam *Oversites design* dengan empat perlakuan dosis Fe serta tiga ulangan. Perlakuan yang diberikan adalah Fe 1,5 ppm; Fe 3,0 ppm; Fe 4,5 ppm; dan Fe 6,0 ppm. Sumber senyawa Fe yang digunakan yaitu Fe-EDTA.

Hasil penelitian menunjukkan bahwa pemberian Fe hingga konsentrasi Fe 6,0 ppm tidak menghambat pertumbuhan serta tidak menurunkan hasil pada tanaman selada. Konsentrasi Fe 6,0 ppm mampu meningkatkan tinggi tanaman, jumlah daun, panjang akar, lamanya luas daun, bobot segar akar, bobot segar tajuk, dan bobot segar total tanaman. Konsentrasi Fe 6,0 ppm mampu menghasilkan kandungan Fe paling tinggi yaitu sebesar 0,198 mg Fe/bobot kering daun.

Kata kunci : *Lactuca sativa* L., Fe, hidroponik

ABSTRACT

GROWTH AND YIELD OF HYDROPONICS LETTUCE (*Lactuca sativa* L.)

BY Fe ENRICHMENT

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Iron (Fe) is one of the important mineral for human body, especially women. People need to consume food with high Fe content to fulfil their iron requirements. Therefore, studies about the increase Fe content on food need to be conducted. The aim of this study was to investigate the effects of addition of Fe in the nutrient solution of hydroponics on growth, yield, and Fe content in lettuce plants (*Lactuca sativa* L.). The research was conducted at the greenhouse of Department of Soil, Faculty of Agriculture, University of Gadjah Mada from September until November, 2011. The experimental design used was Randomized Complete Blocks arranged in Oversites design with four treatments of Fe doses and three replications. The treatments were Fe 1,5 ppm, Fe 3,0 ppm, Fe 4,5 ppm, and Fe 6,0 ppm. Sources of Fe compounds was Fe-EDTA.

Adding Fe up to 6,0 ppm in the nutrient solution of hydroponics didn't inhibit the growth and yield of lettuce. The results showed that lettuce had the biggest in plant height, number of leaves, root length, leaf are duration, root fresh weight, shoot fresh weight, and total plant fresh weight when the lettuce was grown in the treatment of Fe 6,0 ppm. Moreover, nutrient solution added with Fe 6,0 ppm could increase Fe content in the leaves up to 0,198 mg Fe/gram leaf dry weight.

Key words : *Lactuca sativa* L., Fe, hydroponics