

Effects of Chemical and Organic Fertilizer Application on Yield of Herbaceous Crops in Succession

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Abstract : Fertilizer is a critical input for improving production and increasing crop yields. Consecutive experimental trials during six years (from 2010-2015) were carried out in Apulia region (south-eastern Italy) on seven crops grown in cylinder pots. The aim was to determinate the effects of chemical and organic fertilizer on marketable yield and other parameters of processing tomato (*Lycopersicum esculentum* L., cv Docet), lettuce (*Lactuca sativa* L., cv Canasta), cauliflower (*Brassica oleracea* L., cv Casper), pepper (*Capsicum annum* L., cv Akron), fennel (*Foeniculum vulgare* L., cv Tarquinia), eggplant (*Solanum melongena* L. cv Primato F1) and chard (*Beta vulgaris* L., Argentata). At harvest the qualitative and quantitative yield characteristics of each crop were determined. All of the experimental data were subjected to analysis of variance (ANOVA). Results showed that the yields for all of these crops were greater under the chemical system than the organic system whereas quite variable results were generally observed for the other characteristics of the yield.

Keywords : fertilizers, herbaceous crops, yield characteristics, succession

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