

عنوان مقاله:

Yield and Antioxidant Activity of Artichoke Leaves (Cynara scolymus L.) Affected by some Agronomical Factors in Golestan Province of Iran

محل انتشار:

مجله گیاهان دارویی و محصولات فرعی, دوره 3, شماره 1 (سال: 1393)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Artichoke (Cynara scolymus L) belongs to Asteraceae. A factorial experiment based on the randomized complete block design with three replications was carried using depths of root available water (RAW) and sowing time (ST) as treatments. Leaf length and width, number of leaves per plant and the biomass yield were recorded before laboratory analysis. In laboratory total phenols, total flavonoids, antioxidant activity and the content of chlorogenic and caffeic acids of leaf extracts were measured. The contents of caffeic and chlorogenic acid and the antioxidant activity varied based on the sowing times. A significant interaction effect of the treatments was observed on the content of chlorogenic and caffeic acid as well as on the antioxidant activity (ICA_o) of the leaf extract. Plants which were grown at minimum RAW (٣٣%) produced ۱۸۹ mg/g more chlorogenic acid than the plants grown at maximum RAW (١٠٠%). It seems that under the conditions of the province Golestan, a delay in planting time led to a decrease of leaf yield both quantitatively and qualitatively. Based on the obtained results it can be concluded that under moderate water stress, .the highest metabolite accumulation could be expected

کلمات کلیدی:

Antioxidant activity, Artichoke, caffeic acid, chlorogenic acid, root available water

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1834137

