Biosynthesis of Natural Products of German Camomile (Matricaria recutita) in Experimental Cultivation

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The goal of this paper, is to determinate quantitative and qualitative characteristics of camomile essential oil isolated from six gatherings acquired during the experimental cultivation. The goal of this paper was to determine which factors the most to the amount of essential oils in the camomile. Using the hydrodistillation and gas chromatography I derived the significant connection between the precipitations and amount of essential oils the plant which was considered inferior by many authors, while recognising the sunlight and heat to be the main factors. Another factor influencing the amount of essential oil in camomile are depletion of soil elements and further stressors. I proved that qualitative and quantitative characteristics of essential oils of camomile are based in genes and they depend on mutual interaction between the plant potential and environment. Camomile I grew was appropriate for therapeutic usage as it contained a great amount of precious a-bisabolol and chamazulene. These substances are important for camomile economic potential. The therapeutic effect of German camomile is based in its amount of essential oils. The biggest advantage of this paper is explanation of direct dependence between the amount of essential oils and hydration of the plant which is caused by the amount and distribution of the precipitation during the blossoming of the plant. Practical usage of this research being that by correctly chosen irrigation greater production of the essential oils can be achieved.

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