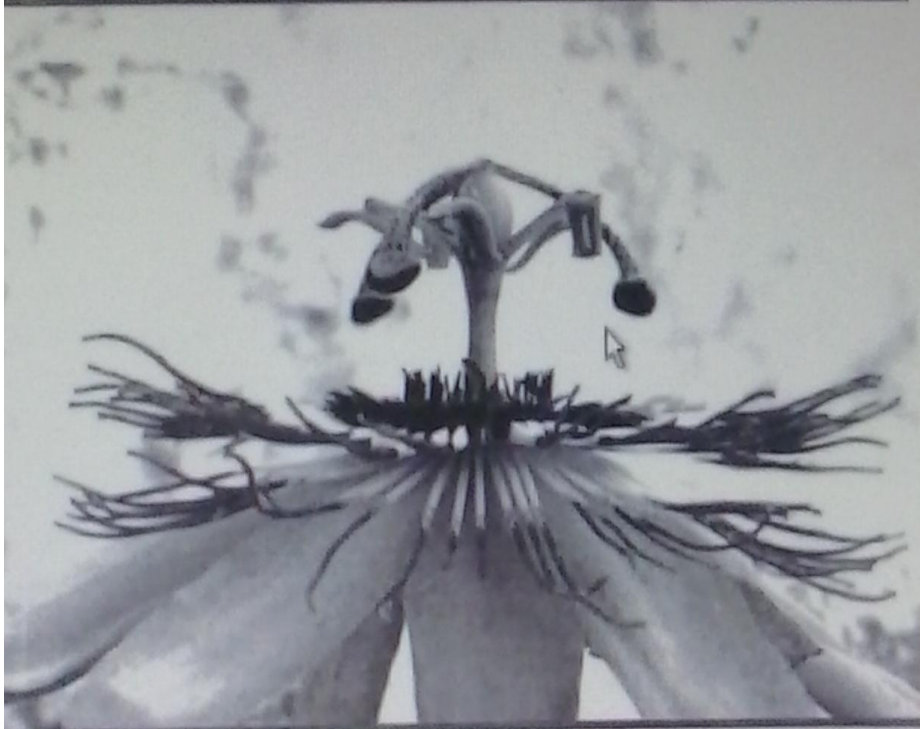


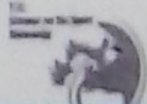


The First Mediterranean Symposium on
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ABSTRACT BOOK



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**QUANTITATIVE ASSESMENT OF TOXIC TRACE ELEMENTS IN
LOCAL BRANDS OF TEA IN MACEDONIA**

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The effects from the accumulation of toxic trace elements are very complex and can influence the content of pharmacologically active compounds in plants. Thus significantly changes the quality, safety and efficiency of their natural plant products. We have noticed before that Macedonian companies have export of a good quality raw material to processing and import of final products with added value¹. Because we are suspicious of pharmacological and toxicological point of view we decided on the research of 15 local brands of various teas which could be found in the markets in Macedonia. Toxic heavy metals (Cd, Pb) were analyzed by ETAAS, and other elements were analyzed by FIMS (Hg) and FIAS (As) methods, respectively. Results expressed on dry matter basis indicate that not all tested trace elements: lead, cadmium, mercury and arsenic are found in the analyzed samples. Under current legislation in Macedonia¹ there is a restriction on the maximum allowable concentration for lead to 0.1 mg/kg and for cadmium to 0.05 mg/kg expressed on fresh herbs and no limits for arsenic and mercury. Unfortunately, not all of the 15 local brands of various teas which could be found in the markets in Macedonia are safe to use.

¹AGBIZ MARKET INFORMATION. (2009): „Wild gathered products” Newsletter, 2., 2-4.

²Pravilnik za opшти baranja za bezbednost na hrana, Sl. Vesnik RM 118/05.