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***Artemisia annua* L. : Harvest and post-harvest treatments**

Report 2007-2008

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Summary

The works conducted from July 2007 to March 2008 reported in this document give a preliminary series of answers for researchers and practitioners dealing with culture and more precisely harvesting of *Artemisia annua*.

The aim of these works was not to give a “ready made” answer for harvesting of *Artemisia annua*, because the disparity of production costs and environmental conditions do not allow this, but it was to supply on the one hand reliable framework recommendations for the manual “Good Agricultural and Collection Practises (GACP) for *Artemisia annua*” and on the other hand data for the management of works on farm.

Work management in controlled conditions is essential to confirm or infirm traditional practises where the border between reality and supposition is sometimes hard to find. A lack of precision is also extremely current in this information as this culture is very recent (e.g. : “the leaves should therefore not be stored at a high temperature” !)

Drying trials have precised the artemisia’s high sensitivity above 40°C. This sensitivity is even higher should the structure of fresh leaves be damaged by a too aggressive mechanised harvest.

The first results available about the storage trial show considerable losses noted already after one to two weeks’ storage above 40°C. The continuation of this trial over several extra months will be the object of a further report.

Finally, the first tests conducted in order to identify the factors favouring the gain in artemisinin, sometimes observed with field wilting of *Artemisia annua* were not conclusive. However they bring several reflexions for the future.

The results and conclusions of these works are detailed in this report.

Médiplant, as well as the various persons having worked together to carry out these works give their hearty thanks to Medicine For Malaria Venture for their interest and their precious support to this research.

Conthey, 7th April 2008; Xavier Simonnet