

ABSTRACT

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**Assessment of Crop Growth and Artemisinin
Content of the Medicinal Plant *Artemisia annua*
Anamed in the Gamo Highlands of SW Ethiopia.**

Master Thesis

By

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Assessment of Crop Growth and Artemisinin Content Of the Medicinal Plant *Artemisia annua* Anamed In the Gamo Highlands of SW Ethiopia.

Artemisia annua L. (Asteraceae) - is an annual herb, native to China. It is a vigorously growing plant which may reach more than 2 m. Its leaves and flowers contain Artemisinin, which is effective against drug resistant malaria and could create a step forward in preventing almost one million deaths annually. Malaria is a major problem in Ethiopia; almost 75% of the total area is estimated to be malarious and 65% of the total population are at risk of having malaria. The new strain, *Artemisia annua* Anamed (A-3) was introduced to south-western Ethiopia in 2001. Crop growth assessment is carried out in 3 locations called Chencha, Boreda and Bonke of Gamo Gofa Highlands of SW Ethiopia. Climate data and soil parameters are used to characterize the sites and Plant performance is monitored by collecting plant samples to determine plant growth and artemisinin content at various growth stages. To get preliminary check on the quality of material, an interview of 30 A-3 tea user for the treatment of malaria and other sicknesses carried out in Arba Minch town. And to assess the opinion on the A-3 growing, an interview of 27 A-3 growers from the 3 sites is carried out. Data analysed using SAS 9.1 and Ms Excel. This paper presents the results discussed with in-depth review of literature. The study is aims at providing agronomic data on the performance of A-3 under highland conditions which may support the promotion of its cultivation and use in Ethiopia. Thus, it may help to fight malaria in malaria prone areas of Ethiopia, improve the health situation of the rural population and contribute to income generation for small scale farmers.

Key words: *Artemisia annua* Anamed, Plant growth and artemisinin content, treatment of malaria.