

## **Artemisia Annua Anamed**

- Is the hybrid form of artemisia annua and higher concentrated in the active agent, called artemisinin. Compared to its origin, it is able to grow in tropical regions and can reach a higher growing height.

### **Why should we plant the artemisia annua anamed?**

The artemisia annua anamed is a very useful medical plant, especially in the treatment of malaria. For example, some results of studies made on the semi-immune population (161 humans), living in malaria-endemic regions show a 93% healing quote. Knowing that malaria costs one life every 12 seconds and that there is no single medicine that has a healing quote of 100%, this plant offers new possibilities in the fight against it. Another aspect in this case is the fact that most of the countries affected by this tropical disease are the developing countries. With a plant healing malaria these countries would be able to become independent of the importation of expensive chemical medicine and the best treatment wouldn't stay an option only for the rich people. For the advantage of Artemisia is, that it shows its effect also just by drinking the tea made by this plant.

### **How to use the medicine?**

It is still in discussion if the artemisia can also be used as a prophylaxis. Proved is only the healing of already sick people, showing the different symptoms of malaria. It also seems to be fact, that just the tea made by this plant, is more effective than the chemical medicine including the same active agent, what is explained by the presence of other anti-malarial components apart from artemisinin. But it is also important to know that the artemisia tea as well as other medicine is not always enough as treatment. Additional you will maybe need some other soft medicine and you should observe the age, weight and physical situation of the patient to give the right concentration of the medicine, also in the case of trying the tea. Good information for this you may find at [www.anamed.net](http://www.anamed.net). It is also recommended to drink a lot in order to compensate the high loss of water during the sickness, for example tea made by lemongrass (about 2 liters a day).

### **Where can we already find plantations in Kenya?**

There are several organizations that already tried to spread the useful plant in East Africa. In Kenya we have a foundation called "Keniamed" whose plantations you may find in the Taita Hills and some beginnings also at Mtwapa. Another plantation you can find at Nairobi at the Keniatta University, where it is part of a project. But also some farmers in Naivasha and Eldoret are very successful in planting the artemisia.

### **Botanical knowledge about the plant:**

Unfortunately this field doesn't seem to be very investigated yet and it was very difficult to get information about. All I was able to find out is that the artemisia originally grows in china and that still the hybrid form does not really like the tropical climate. Some current news gave also the information, that the plant prefers sandy places. The artemisia annua named is sowed by placing the seeds on the soil and not by digging them in. The plant likes it light but not under the direct insolation and the soil should be damp but not too wet and very loose. Furthermore the roots of the artemisia are always as long as the plant is high why it needs a lot of space.

### **Planting-experiments:**

Thanks to "Keniamed" I got some of the valuable seeds and was able to start some first experiments to grow them doing a project with the support of "Baobab Trust".

The first sowing I made on September 04, 2005 with around 7 seeds. The container I used, was an old 5-liter water can which I cut at 20-cm height. With a hot and pointed object I put around 25 holes in the plastic to make sure that the soil gets damp if I place the can in another container containing water. I wanted the soil to absorb the water so that I would be able to control the dampness and not to disturb the seeds which I later placed on top. After putting them in the already damped can, I covered the container with a transparent film to have a protection against animals and the wind. And for that the plants get enough oxygen I made many holes in this film as well.

The soil I used was put together by sterilized compost of the shamba (75 %), sand (20 %) and fibre of coconut (5 %).

The second sowing I made on September 19, 2005 with some changes in the structure of experiment, because of the unsatisfactory results from the first seed. At this time I put around 9 seeds in a lower container (I cut it at 10-cm height) and started from the beginning on to water the soil from the bottom towards the top hoping the soil would stay more loose in this way. The change, concerning the height was due to the better possibility to water the plants. First I thought it would be better to make it quite high, because of the roots. But then I saw that it would be better to grow them first and then transplant them to a deeper place when they are a bit stronger. Another change I did was that I removed the film after the coming out of the first plant, because I was not sure if it is maybe not too damp and tropical under it, although I put holes in it.

The soil I used for the second seed contained the compost of the shamba and the sand as well as the first one, but no fibres. Also the concentration of sand was a bit higher (compost 75 % and sand 25 %).

The third sowing I made on October 12, 2005 with the help of Marc Schreiber, another volunteer student at Baobab Trust. Because of his studies he already knows a lot about plants and he is very interested in the artemisia, too. After the new information we got, that the artemisia likes it sandy, we started a new sowing-experiment with a higher concentration of sand. This sand we got from the shamba, so that we were able to make sure that it doesn't contain too much salt. Because although I washed the sand from the sea once before using, it is possible that it is still too high concentrated for the small plants. Apart from the soil, the structure of experiment stayed the same as in the second sowing. The soil we used for the third seed then contained the compost of the shamba (25 %, well weeded) and sand, from the shamba as well (75 %).

### **Results:**

As I already wrote under the passage of the planting-experiments, the results were more disappointing than successful. Both the first seed and the second brought forth only one small plant, which means a coming out quote of not even 10 %. And in addition to that, I already lost the first one after just eight days. In this place I have to mention, that the seeds I got from "Keniamed" were already old what certainly influenced the experiment. But that doesn't explain the loss of one of the plants and in addition to that it is not sure that the second one will make it as well. Concerning the third sowing I can not give any information yet. It is sure that this failure in general is due to the gap of information as well as to my lack of knowledge concerning botanic.

### **Conclusion:**

Before I came to Kenya I spent a lot of time informing myself about malaria and the different medicine against it, to have the best (and a soft) prophylaxis. That was the first time I heard about this new famous medical plant, the so-called artemisia annua while I was talking to Margarete Mainka-Ruprecht, the founder of "Keniamed". Very delighted about the interest of Dr. Haller, I tried again to come in contact with this foundation to receive some of the rare seeds in order to start a project at the "Baobab Trust". My aim was to grow up some plants and make it possible for the "Baobab Trust" to start with a small plantation (by vegetative increase) and to take part in the spreading of this new "wonder medicine". The fact that I didn't reach what I wanted to is disappointing for me, but still I'm taking a lot with me. I learnt many new things about the richness of nature and how sensitive a plant can be. It is really amazing how many useful plants you can find here and it would be another interesting work to make a survey of all the medical plants you can find at the "Baobab Trust" such as the neem tree or the moringa. Supplementary I'm really hopeful that the contact between "Keniamed" and "Baobab Trust" will go on and somebody else, maybe Marc Schreiber, will finish my project after having more information about the native soil of the annua anamed and its preferred growing conditions.

**Sources:**

- Keniamed ([www.keniamed.de](http://www.keniamed.de)), especially Margarete Mainka-Ruprecht
- Dialog-International ([www.dialog-international.org](http://www.dialog-international.org))
- [www.y2z.de](http://www.y2z.de)
- Anamed ([www.anamed.de](http://www.anamed.de)), especially Hans-Martin Hirt
- "Annan praises Kenya's war on resistant malaria", article in the "Daily Nation" (September 16, 2005)

**Appendix:**

- planting-experiment-data of the artemisia annua anamed

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Appendix

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Planting ~~experiment~~ data

Seed:	Date of sowing:	Coming out:	Comments:
First seed (7)	September 04, 05	September 10, 05 One plant	Structure of experiment: - container around 20-cm high - soil (75 % compost, 20 % sand, 5 % coconut fibre) - covered by protection film with holes First and only plant died September 18, 05
Second seed (9)	September 19, 05	October 01, 05 One plant	Changes in the structure of experiment: - lower container (10-cm) - new soil (75 % compost, 25 % sand) - from the beginning on watered from the bottom to the top - removing of the film after first plant
Third seed (6)	October 12, 05	open	Changes in the structure of experiment: - new soil: sand from the shamba 75 % and compost 25 %