

## Facts about dry land vegetation <Part 2>

As the 2nd part in the series, we would like to introduce some parasitic plants unique to the area. *Cynomorium coccineum* (Cynomoriaceae family) and *Cistanche tubulosa* (Orobanchaceae family) are some of the parasitic plants occasionally seen on dunes in the Arabian Peninsula. These suddenly emerge on shifting dunes or salt accumulated areas and often surprise people. *Cynomorium coccineum* is called “tarthooth” locally and is translated as “red thumb” in some English language literature. As can be seen in the photos, the way they stick up their dark red heads is slightly eerie. This plant species is distributed from the Mediterranean, North Africa, Arabian Peninsula and extends to West Asia, and generally the host plants are *Atriplex* spp. and other halophytes. There are records of red thumb being used for food and medicine for millennia.

On the other hand, *Cistanche tubulosa* is locally known as “thanoon”. The English name is “desert hyacinth” and it bears beautiful hyacinth-like flowers. The host plants for desert hyacinth are also halophytes such as *Tamarix* spp. and *Salvadora persica*. They are very visible, often growing quite far from the hosts. Their seeds can stay dormant for many years until the roots of the host plants reach them. This plant also is recorded as having been used medicinally. It is interesting to note that “tarthooth” is good for constipation and “thanoon” is good for stopping diarrhea.



*Cistanche tubulosa*



*Cynomorium coccineum*

After more than 10 years since I first encountered these unique parasitic plants, I came across *Orobanche* spp. of the same Orobanchaceae family in a vegetable field in Syria along the Mediterranean coast. AAI worked on the

technical cooperation project, Development of Efficiency Irrigation Techniques and Extension (DETEX) in Syria from 2005 to 2012. The project's target areas include southern Syria where vegetables such as tomato, cucumber and eggplant are widely grown. In this area, *Orobanche* spp. which is locally known as “harook” is seen as a weed troubling farmers in tomato and eggplant fields. Many farmers seem to believe that they can suppress *Orobanche* spp. by keeping the soil moist, and therefore they tend to use excessive water through irrigation. This is a headache for our project aiming to extend water saving irrigation in Syria where water resources are being depleted. In other words, while the project is advising the farmers to use adequate amounts of water depending on the needs of individual crops, farmers tend to use more irrigation water than necessary to suppress the weeds. This has been having a negative impact on the project achievements.



*Orobanche* spp.

Furthermore, recently, we have encountered very similar plants in Sudan where we started working on an agricultural development project. These are *Striga* spp., which is also a species of Orobanchaceae family. This plant parasitizes on grains such as sorghum and maize, and sometimes cause catastrophic damage for a whole farm. Its damage has been spreading in particular in Africa. Once *Striga* spp. damaged, grain fields turn into wild flower fields instantly. The plant is also called witchweed, as the quick transformation is as if a witch has cast a spell on the field.



*Striga* spp.