

**Informationen zur Umwelt und für Naturreisende auf Kreta:**  
Information about the Environment and for travellers in Crete:**Crevasse-Cave at Gergeri / Middle Crete**  
**Orange (*Citrus sinensis*) / Lemon (*Citrus limon*)**

The crevasse-cave at **Gergeri** is a good example of "breaks in the Mountains" by tectonic movements (of the Earth's crust). The cave can be reached over the North-South route **Iraklion – Agia Vavara**. In **Agia Vavara** turn right towards **Zarós** (over **Gergeri**). The cave is located right next at the hillside, right of the road, and exact 0.7 miles before the village **Gergeri**. The entrance is at street level and easy to miss because it is half hidden by a fig bush. It is about 1.6 metres high but very narrow. The crevasse leads relatively "steeply down" and is initially head-high and 1.2 metres wide. It gets closer after around 10 m (max. still 60 cm) and also lower; in approx 15 metres deep the height is only about 70 cm. From here only the "crawler gear on your belly" is possible, which should not be done without proper equipment and clothing because of the sharp break rocks. In approximately 20 meters deep the cleft seems to be "blocked" by rock failures within the mountain and is no longer "walkable". The cleft apparently leads water during the rainy months (irrupting surface water from the mountain), whose traces can be seen in form of (beautiful) sintering formations on the rock in the cleft. However the calc-sinter characteristics are localised 9 metres from entering in an area of 2 meters. Here also (algae clad) clefts lead "upwards", which probably feeding surface water. The cleft cave offers good opportunities for study on the effects of tectonic movements and once again shows us the enormous "forces of nature" involved in these operations.



Fig. li. shows the "entrance" at the foot of the mountainside seen from the street. The breaks and shifts in the rock (with western slope) are clearly visible. The middle picture shows the cleft. Also here are the "destructive" effects of tectonic movements visible. Loose, but mostly "wedged" rocks demand extreme caution when inspecting (in any case not without a helmet!). Fig. right shows the calc-sinter crusts from within the cleft cave. Their formation and strength (thickness) suggest that the cleft is already incurred thousands of years ago - and will only little change in the future if not earthquakes or other tectonic influences the mountain get back in "movement".

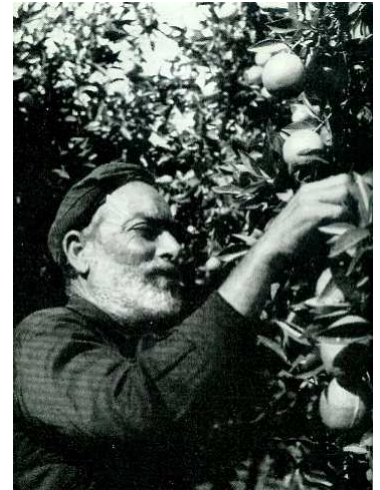
**Pictures:** (2) U. Kluge / (1) H. Eikamp (12/2004)

## Orange (*Citrus sinensis*) / Lemon (*Citrus limon*)

Fruit growing is very low represented in Crete by area with only 1.6 %. Oranges <sup>1)</sup>, mandarins and lemons come mainly from plantations on the Central and Western North Coast. Two-thirds of the citrus fruit “walk” in the export or the Greek Mainland, about a third meets the local needs.

The evergreen trees, belonging to the genus *Citrus* <sup>2)</sup>, are usually very old cultural forms on Crete. Citrus trees prefer well-drained, acidic clay and a sheltered location in the sun. You can get citrus fruits in Crete all year long; during the tourist season they are offered low-cost especially on the northern road (between Rethymno and Chania) by domestic producers (direct marketing!).

Picture: Orange crop on Crete 1948



Oranges mellow on trees with more roundish crown, which can be up to 8 m high. The white flowers smell pleasantly, the shiny green leaves are tapering and rounded at the bottom. The fruit is used for the production of juice or as fruit, the skin and the essential oil to the flavour of food



Citrus trees are up to 6 m high. The leaves are slightly lanceolate and up to 8 cm long. New leaves are first mostly purple. The flowers are white, up to 4 cm and tall and also exude a very nice, strong scent. The fruits are well known as vitamin C donors.

**Pictures:**

*U. Kluge (12/2004)*

- 1) **Synthetic material from orange skin** – new development of a Styrofoam replacement: today you hardly pass on Styrofoam. Thousands of tons are produced each year for most thermal insulations and packaging, mineral oil is used as raw material. Now chemists have created a similar plastic – **from carbon dioxide and orange skins**. This new development is interesting not only for renewable raw materials but the use of the greenhouse gas carbon dioxide for the production of the new plastic. It no longer escapes into the atmosphere - and positively affected our environment.
- 2) The citrus species contain antioxidants and vitamin C; they are used in cosmetics; they restore damaged cells; acids contained eject dead histoid.