

## Traditional Oil Production from Lamiaceae species and Utilization of Oil by Local People in Akseki-İbradı-Manavgat Districts (Antalya-Turkey)

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**Aim of the study:** The Lamiaceae/Labiatae family members are frequently aromatic plants such as mint, rosemary, hyssop, thyme, lavender, perilla, basil, savory, sage and oregano. This family is one of the most traditionally used and traded families in the world due to its aromatic quality. One of the most commercially known products of this family is oregano and/or marjoram oils and plant parts. Here we illustrate traditional oil production method from marjoram and its use by local people in southern Turkey.

**Material and Methods:** Study region covers Akseki-İbradı and Manavgat districts of Antalya Province in Southern of Turkey. In this study, we visited villages of study region during summer period of 2016 and interviewed with local people in the study region, local bazaars and tea houses to get information about which Lamiaceae species they use for oil production, local names of these species, used plant parts, methods of oil production and traditional uses of oil. The local people are commercially collected many genera of Lamiaceae such as *Origanum*, *Salvia*, *Thymbra* and *Satureja*. The most widely collected and used species are *Origanum onites* (donkey and/or black oregano) and *Origanum majorana* (oil and white oregano) in the study region. The all process of oil production, from collection of plant material to production of oil, was illustrated. The local people extract essential oil and aromatic water (hydrosol and/or kekik water) from *O. majorana* due to its high oil yield and efficiency by a traditional steam distillation method which is called “imbik” (alembic) by local people.

**Results:** The local people obtain about 200 ml pure essential oil and 10 L aromatic water from 15-20 kg dried all plant parts of *O. majorana* and 30-40 L water. They generally do not sell pure essential of marjoram. The produced aromatic water is bottled (1 L) and sold around 1 \$ in local street markets. They can produce huge amount of aromatic water (500-1000 L) depends on plant material richness in season. The aromatic water has become a commercially well-known product in recent years especially in western and southern parts of Turkey as a diluted version of pure oil. They use pure oil to cure various diseases such as strong cough, bad cold, wounds, gastrointestinal disorders and skin problems in humans and domestic animals. They apply oil externally on wounds as an antiseptic agent and believe that this cure helps to kill microorganisms and speed up remediation process. Collection of huge amount of plants from wild populations can cause genetic erosion of species. The sustainability of species should be provided by genetic resource conservation programs.

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**Keywords:** Marjoram, oregano oil, traditional distillation, ethnomedicine.