The essential oil of Foetid juniper cones was found an average yield of 2.43 ± 0.71% v/w according to dry weight. Statistical analysis showed that physical properties could affect amount of essential oil. But, moisture content (%) was determined by the most affecting physical properties on the yield of essential oil in Foetid juniper cones. The results obtained from this study suggest that the moisture properties of the plant may be an effective parameter on the essential oil content. It is possible to increase the amount of essential oils of plants in certain ecological conditions when it is considered that the physical properties of cones may be directly influenced by ecological environmental conditions. For example, according to findings from this study, the ecological conditions that cause humidity increase in the cones are actually a factor that reduces the yield of essential oil. Therefore, the appropriate condition of a growing environment depends on what the target is. More precisely, if the target is a plant with more essential oil yield, the drought in the environment is here aimed at a more favorable growing environmental site condition. But it is a fact that there is a need for much more study to be done on this subject in order to achieve clearer information.