In this study, conducted between 2015 and 2017, 49 different volatile components were identified from Phlomis rigida Labill that was reaped from Gölcük highland located on Konya Seydişehir-Bozkır road and Phlomis monocephala P.H.Davis that was reaped from Mersin Silifke Bahçederesi Village in Turkey at three different periods (pre-flowering, flowering and post-flowering) through gas chromatography mass spectroscopy (GC-MS) after solid phase micro extraction (SPME). The main components of Phlomis rigida were found to be (E)-2-Hexenal (9.21%), β-Caryophyllene (60.23%) and Germacrene D (9.76%). The main components of Phlomis monocephala were found to be β-Pinene (15.59%), (E)-β-Farnesene (17.69%) and Germacrene D (18.92%). It was concluded that reaping P. rigida and P. monocephala species during the flowering period was important for the yield of volatile components.

Keywords: Phlomis, GC-MS, Germacrene D, β-Pinene, Turkey