ABSTRACT

Avocado (*Persea americana* Mill.) is a fruit plant native to Central America and Mexico that is now widely cultivated worldwide, including in Indonesia. This study aims to assess the quality and similarity of local avocados from Timang Gajah District, Bener Meriah Regency. This study was conducted in Timang Gajah District, Bener Meriah Regency, an area known as a major avocado production center due to its climate that is very favorable for plant growth. The findings of this study are valuable for avocado germplasm conservation efforts. The descriptive exploratory method was used to collect primary data, starting with exploration and surveys of avocado trees, while interviews were used to collect secondary data. The research location in Timang Gajah District, Bener Meriah Regency, was selected using purposive sampling. The study lasted for five months, from January to May 2026. Five fruit samples were collected from each avocado tree, with observations focusing on fruit morphological characteristics. The results of this study indicate that avocado accessions in Timang Gajah District, Bener Meriah Regency show a similarity range of 49%-78%. At a similarity level of 60%, avocados can be grouped into six clusters. The first cluster consists of three accessions TG01, TG03, TG04. The second cluster consists of seven accessions TG02, TG14, TG10, TG06, TG08, TG07, and TG12. The third cluster consists of one accession TG05, as does the fourth cluster TG09. The fifth cluster contains two accessions TG11 and TG13, while the sixth cluster consists of one accession TG15. The results also showed that avocados in Timang Gajah District, Bener Meriah Regency, showed visible differences in external fruit characteristics, namely fruit shape, uniformity, base shape, and tip shape. Differences in fruit flesh were observed in color characteristics, namely the color of the fruit flesh near the skin and the color of the fruit flesh near the seed. Differences in seed characteristics were seen in seed shape, seed color, and seed coat.

Keywords : Avocado, Accession, Diversity, Germplasm, Timang Gajah