RINGKASAN

Kentang (*Solanum tuberosum* L.) merupakan salah satu jenis umbi-umbian yang tumbuh di Indonesia. Budidaya kentang di Indonesia dilakukan pada daerah dataran tinggi, dengan ketinggian antara 1000-3000 m dpl dan suhu optimal 18-21^{o}C serta kelembaban 80-90%. Tempat budidaya kentang di Jawa Tengah salah satunya adalah Kebun Benih Holtikultura, Desa Kledung, Kecamatan Kledung, Kabupaten Temanggung terletak pada ketinggian 1399 m dpl dengan suhu 15-25^{o}C. Jenis tanah pada Kebun Benih Holtikultura adalah regosol, tekstur tanah geluh pasiran dan berwarna coklat. Informasi morfologi, anatomi dan molekuler diperlukan guna mendukung kajian sistematika, pengembangan budidaya serta dalam bidang pemuliaan tanaman. Tujuan penelitian ini adalah mengetahui struktur dan karakter anatomi daun dari tiga kultivar kentang dan mengetahui perbedaan karakter anatomi daun dari tiga kultivar kentang. Teknik pengambilan sampel daun secara *purposive random sampling*. Daun kentang yang digunakan sebagai sampel adalah kultivar Dayang Sumbi; Atlantik; dan Olympus. Sampel daun kentang dibuat preparat mikroskopis menggunakan metode parafin dengan pewarnaan safranin 1% dalam alkohol 70%. Parameter yang diamati adalah tebal kutikula, tebal epidermis, tebal mesofil, ukuran stomata (panjang dan lebar), serta kerapatan stomata dan trikomata per 1 mm^2 luas. Data hasil pengamatan dianalisis dengan uji F dan uji lanjut BNT. Hasil penelitian menunjukan bahwa struktur anatomi daun kentang kultivar Atlantik, Olympus, dan Dayang Sumbi tersusun atas kutikula, epidermis atas, mesofil, berkas pengangkut, dan epidermis bawah serta derivat epidermis stomata dan trikomata. Hasil uji lanjut BNT pada karakter anatomi daun kentang kultivar Atlantik, Olympus, dan Dayang Sumbi berbeda pada tebal epidermis atas, lebar stomata bawah, dan kerapatan stomata atas.

Kata Kunci: Karakter Anatomi Daun, Kultivar, *Solanum tuberosum*

SUMMARY

Potato (*Solanum tuberosum* L.) is one of tubers type growing in Indonesia. Potato cultivation in Indonesia is held in plateau area, with altitude between 1000-3000 m asl and optimal temperature 18-21^{o}C and humidity 80-90%. One of potato cultivation in Central Java is Kebun Benih Holtikultura in Kledung Village, Kledung District, Temanggung Regency is located at an altitude of 1399 m asl with temperature 15-25^{o}C. Types of soil in the Seed Garden of Holtikultura is regosol, texture of the soil is sandy and brown. Morphological, anatomical and molecular information is needed to support systematic study, cultivation development and in the field of plant breeding. The purpose of this research was to understand the structure and character of leaf anatomy from three potato cultivars and to understand the difference of leaf anatomical character of three potato cultivars. Leaf sampling technique by purposive random sampling. Potato leaves used as samples were cultivars Dayang Sumbi; Atlantik; and Olympus. Leaf samples were turn into microscopic preparations using paraffin method with 1% safranin staining in 70% alcohol. The parameters observed were the thickness of the cuticle, the thickness of the epidermis, the thickness of the mesophyll, the stomata size (length and width), as well as the number of stomata and trichomata per 1 mm^2 area. The observed data were analyzed by F-test and BNT advanced test. The results showed that the anatomical structure of potato leaves of Atlantik, Olympus, and Dayang Sumbi cultivar were composed of cuticle, upper epidermis, mesophyll, vascular bundle, and lower epidermis and epidermal derivatives were stomata and trichomata. The result of BNT advanced test on the anatomical character of Atlantik, Olympus, and Dayang Sumbi cultivar differ in upper epidermal thickness, lower stomata width, and upper stomatal density.

Keywords: Character of leaf anatomy, Cultivars, *Solanum tuberosum*