

## INTISARI

Penelitian bertujuan untuk 1) mengetahui fenologi pertumbuhan pucuk lima klon teh saat tahun pangkas dua (TP 2) di ketinggian tempat 1000 m dpl pada periode musim hujan dan 2) mengembangkan metode penentuan waktu panen pucuk yang tepat berdasarkan derajat hari pertumbuhan (DHP) pada masing-masing klon teh saat tahun pangkas dua (TP 2) pada periode musim hujan di ketinggian tempat 1000 m dpl untuk mendapatkan mutu medium dan bobot pucuk maksimal. Percobaan lapangan disusun menggunakan Rancangan Acak Lengkap (RAL) dengan klon teh sebagai perlakuan. Klon teh yang diuji yaitu Gambung 7, TRI 2025, TRI 2024, Kiara dan Pasir Sarongge (PS). Pengamatan dilakukan terhadap beberapa variabel cuaca mikro di lokasi penelitian dan perilaku fenologi klon-klon teh. Data yang diperoleh selanjutnya dianalisis varians (ANOVA), jika terdapat perbedaan nyata antar perlakuan dilanjutkan dengan uji lanjut *Tukey* pada  $\alpha$  5%. Hasil penelitian menunjukkan bahwa fenologi pertumbuhan pucuk teh berbeda nyata pada lima klon yang diuji. Rata-rata umur pecah tunas pada klon Gambung 7, TRI 2025, TRI 2024, Kiara dan PS berturut-turut sebesar 29,8 hari, 27,7 hari, 28 hari, 27,8 hari dan 30,9 hari. Rata-rata umur panen pucuk pada klon Gambung 7, TRI 2025, TRI 2024, Kiara dan PS berturut-turut sebesar 59 hari, 57 hari, 56 hari, 54 hari dan 60 hari. Nilai *Growing Degree Days* (GDD) untuk mencapai mutu medium berbeda nyata antara klon Gambung 7, TRI 2025, TRI 2024, Kiara dan PS berturut-turut sebesar 586 °Cd, 564,5 °Cd, 553,5 °Cd, 534 °Cd dan 593 °Cd. Berdasarkan sifat fenologi tersebut, klon yang diuji dapat dikategorikan ke dalam tiga kelompok yaitu siklus panen cepat (Kiara), siklus panen sedang (TRI 2024 – 2025) dan siklus panen lambat (PS dan GMB 7). Perbedaan karakter tersebut menyebabkan penanaman tidak disarankan untuk dicampur dalam satu hamparan di antara Kiara, TRI 2024/2025 dan PS/GMB 7, khususnya kebun-kebun yang dipanen secara mekanis menggunakan gunting maupun mesin petik dengan model rotasi (siklus) panjang.

**Kata kunci:** fenologi, pucuk mutu medium, GDD, dan klon

## **ABSTRACT**

The objectives of research were to 1) determine shoot growth phenology of five tea clones during second pruning year stage, in rainy season at an altitude of 1000m above sea level, and 2) develop a method to determine appropriate shoot harvest time based on growing degree days (GDD) of each tea clone during second pruning year stage in rainy season at an altitude of 1000m above sea level, to obtain medium quality and maximum shoot weight. Field experiment was arranged using a completely randomized design (CRD) with tea clones as treatments. The tea clones tested were Gambung 7, TRI 2025, TRI 2024, Kiara, and Pasir Sarongge (PS). Observations were done on several variables of micro weather at research site, and shoot phenological behavior of tea clones. Data obtained were then analyzed with analysis of variance (ANOVA), if there were significant differences among treatments followed by Tukey's test at  $\alpha$  5%. The results showed that phenology of tea shoot growth was significantly different in the five clones tested. The average shoot bud breaking age of clones Gambung 7, TRI 2025, TRI 2024, Kiara, and PS were 29.8 days, 27.7 days, 28 days, 27.8 days, and 30.9 days, respectively. The average shoot harvest age for Gambung 7, TRI 2025, TRI 2024, Kiara, and PS clones were 59 days, 57 days, 56 days, 54 days and 60 days, respectively. The GDD to achieve medium quality were significantly different among Gambung 7, TRI 2025, TRI 2024, Kiara, and PS clones, namely 586°Cd, 564.5 °Cd, 553.5 °Cd, 534 °Cd, and 593 °Cd, respectively. Based on these shoot phenological characteristics, tested tea clones could be categorized into three groups, namely fast harvest cycle (Kiara), medium harvest cycle (TRI 2024 – 2025), and slow harvest cycle (PS and GMB 7). These differences in shoot phenological characters mean that planting were not recommended to be mixed between Kiara, TRI 2024/2025 and PS/GMB 7, especially fields that were harvested mechanically using scissors or machine with a long plucking cycle.

**Keywords:** phenology, medium quality shoots, GDD, and tea clones