

## INTISARI

Cabai merah merupakan salah satu komoditas tanaman hortikultura yang cukup sering dikonsumsi oleh masyarakat, sehingga perlu adanya upaya untuk meningkatkan produksi cabai merah agar dapat memenuhi kebutuhan masyarakat. Defoliasi merupakan kegiatan pemangkasan sebagian daun pada tanaman. Tujuan penelitian ini yaitu untuk mengetahui pengaruh defoliasi terhadap pertumbuhan dan perkembangan akar pada empat varietas tanaman cabai merah (*Capsicum annum* L.) dengan intensitas defoliasi tertentu yaitu 20%, 40% dan 60%. Penelitian ini dilaksanakan pada bulan Juni sampai bulan Desember 2021 di Kebun Tridharma Banguntapan Fakultas Pertanian, Bantul, Yogyakarta dengan ketinggian tempat  $\pm 100$  mdpl. Percobaan disusun dalam rancangan acak kelompok lengkap dengan 1 faktor yang terdiri dari tanpa defoliasi (0%), 20%, 40%, dan 60% pada empat varietas tanaman cabai merah yaitu Kencana, Lembang-1, Tanjung-2 dan Ungara serta terdiri dari 3 blok sebagai ulangan. Data yang diamati antara lain lingkungan pertanaman, pertumbuhan tanaman, pertumbuhan dan perkembangan akar tanaman dan hasil buah tanaman cabai merah. Data pengamatan dihitung dengan rerata  $\pm$  standar deviasi untuk melihat perbedaan diantara dua perlakuan. Pada varietas Kencana, Lembang-1, Tanjung-2 perlakuan defoliasi menurunkan hasil tanaman yang diakibatkan oleh penurunan beberapa variabel pertumbuhan akar dan pertumbuhan tanaman. Pada varietas Ungara perlakuan defoliasi meningkatkan hasil tanaman, pertumbuhan tanaman dan beberapa variabel pertumbuhan akar.

Kata kunci: cabai merah, defoliasi, akar, hasil.

## ABSTRACT

*Red chili is one of the horticultural crop commodities that is quite often consumed by the community, so efforts is needed to increase red chili production in order to meet the needs of the community. One effort that can be done is defoliation by looking at its effect on plant roots. Defoliation is the activity of pruning part of the leaves on the plant. The purpose of this study was to determine the effect of defoliation on root growth and development in four varieties of red chili plants (*Capsicum annum* L.) with certain defoliation intensities of 20%, 40% and 60%. This research was carried out from June to December 2021 at the Tridharma Banguntapan Garden, Faculty of Agriculture, Bantul, Yogyakarta with an altitude of  $\pm 100$  meters above sea level. The experiment was arranged in a randomized group design complete with 1 factor consisted of no defoliation (0%), 20%, 40%, and 60% on four varieties of red chili plants namely Kencana, Lembang-1, Tanjung-2 and Ungara and consisted of 3 blocks as repeats. The data observed include the planting environment, plant growth, growth and development of plant roots and fruit yield of red chili plants. The observation data was calculated by mean + standard deviation to see the difference between the two treatments. In the Kencana, Lembang-1, Tanjung-2 varieties, defoliation treatment reduces plant yields caused by a decrease in several variables of root growth and plant growth. In the Ungara variety defoliation treatment increases plant yield, plant growth and several root growth variables.*

*Keywords : Red chili, defoliation, roots, yield.*