

INTISARI

Daun merupakan organ tanaman dengan peran paling krusial dalam proses fotosintesis. Namun, terlalu banyak atau sedikit daun dapat menimbulkan ketidakseimbangan rasio sumber dan lubang serta efek *mutual shading*. Pada penelitian ini, dilakukan pemangkasan sebanyak 0% (P0), 25% (P1), dan 50% (P2) dari total 16 daun tanaman melon Sweet Hami dan Kirin untuk mengkaji pengaruh luas daun bagi pertumbuhan, hasil, dan mutu buahnya. Beberapa variabel yang diamati meliputi panjang dan lebar daun, kehijauan daun, laju fotosintesis, panjang buah, lebar buah, lingkaran buah, bobot buah, waktu muncul net, pengamatan destruktif akar, bobot kering, kandungan klorofil, luas daun, brix, ketebalan daging buah, kekerasan daging buah, kerapatan net, dan kadar air buah. Berdasarkan analisis regresi, kehijauan daun berkorelasi positif terhadap kandungan klorofil serta panjang \times lebar daun berkorelasi positif terhadap luas daun. Berdasarkan analisis ANOVA dan uji lanjut LSD 5%, luas daun per tanaman 4993,65 cm² (pemangkasan 50% atau setara 8 helai daun) menghasilkan mutu buah melon yang sama dengan luas daun 8548,73 cm² dan 7224,45 cm² (pemangkasan 0% dan 25% atau setara 16 dan 12 helai daun). Maka dari itu, luas daun terkecil dipilih karena dapat mempercepat waktu panen melalui waktu *topping* yang lebih cepat.

Kata kunci: pemangkasan, luas daun, mutu, melon

ABSTRACT

Leaves are plant organs with crucial role in photosynthesis. However, having too many or less leaves can cause an imbalance ratio of source and sink, also mutual shading effect. In this study, pruning was conducted at 0% (P0), 25% (P1), and 50% (P2) of the total 16 leaves of Sweet Hami and Kirin melon to examine the effect of leaf area on its growth, yield, and fruit quality. Several variables were observed, including leaf length and width, leaf greenness, photosynthesis rate, fruit length, fruit width, fruit circumference, fruit weight, net appearance time, root destructive parameters, dry weight, chlorophyll content, leaf area, brix, fruit flesh thickness, fruit flesh hardness, net density, and fruit water content. Based on regression analysis, leaf greenness correlated positively with chlorophyll content also leaf length \times width correlated positively with leaf area. Based on ANOVA and LSD 5%, leaf area per plant of 4993,65 cm² (50% pruning or the equivalent of 8 leaves existing) producing the same quality of melon fruit with leaf area per plant of 8548,73 cm² and 7224,45 cm² (0% and 25% pruning or the equivalent of 16 and 12 leaves existing). Therefore, the smallest leaf area was chosen because it can speed up harvest time through faster topping time.

Keywords: Pruning, leaf area, quality, muskmelon