

Pengembangan budidaya tomat organik berbasis pupuk organik cair dan arang sekam

Title	Pengembangan budidaya tomat organik berbasis pupuk organik cair dan arang sekam
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Abstract	<p>ABSTRACT, Fertilizers and soil amendment were two of many factors affecting growth and yield of crops. This research aimed to select the best two organic tomato cultivation technological assemblies based on liquid organic fertilizers (LOF) and husk charcoal (HC). There were six treatments ie. A (20 t manure/ha + 1 t HC/ha + 3 L LOF/ha + 3 L leaf LOF/ha + 6% botanical pesticide + 6 % of secondary metabolite), B (20 t manure/ha + 1 t HC/ha + 3 L soil LOF/ha + 3 L leaf LOF/ha + 6 % of botanical pesticide + 6% of botanical phosphate), C (20 t manure/ha + 1 t HC/ha + 3 L soil LOF/ha + 3 L leaf LOF/ha + 6 % of botanical pesticide + 6% of secondary metabolite + 6% of botanical phosphate + 6% of Plant Growth Promoting Rhizobacteria), D (20 t manure/ha + 1 t HC/ha + 3 L soil LOF/ha + 3 L leaf LOF/ha), E (20 t manure/ha + 1 t HC/ha + 3 L soil LOF/ha + 3 L leaf LOF/ha + 6% of secondary metabolite + 6 % of botanical pesticide + 0.04 g Mycorrhiza/plant, and F (20 t manure/ha + 100 kg Urea + 50 kg Phonska + pestisida synthetic). Each treatment was repeated 4 times. Experimental units were arranged as Randomized Complete block design. Result showed that the best two technology assemblies were C C (20 t manure/ha + 1 t HC/ha + 3 L soil LOF/ha + 3 L leaf LOF/ha + 6 % of botanical pesticide made from maja and gadung + 6% of secondary metabolite + 6% of botanical phosphate + 6% of Plant Growth Promoting Rhizobacteria) and A (20 t manure/ha + 1 t HC/ha + 3 L LOF/ha + 3 L leaf LOF/ha + 6% botanical pesticide made from maja and gadung + 6 % of secondary metabolite). The yield of tomato grown under these two technology were 3,646 t/ha and 3,221 t/ha, respectively. Keywords: Tomato, organic, Liquid fertilizer, husk charcoal, secondary metabolite, ABSTRAK, Pupuk dan pembenah tanah adalah dua dari banyak factor yang mempengaruhi pertumbuhan dan hasil tanaman. Penelitian ini bertujuan untuk mendapatkan dua terbaik rakitan teknologi budidaya tomat organik berbasis pupuk organik cair (POC) dan arang sekam. Perlakuan terdiri atas: A (20t pupuk kandang/ha + 1t arang sekam/ha + 3L POC tanah/ha) + POC daun (3L POC daun/ha) + 6% metabolit sekunder + 6% pestisida nabati, B (20t pupuk kandang/ha + 1t arang sekam/ha+ 3L POC tanah/ha + 3L POC daun/ha + 6% pestisida nabati + 6% fosfat nabati); C (20t pupuk kandang/ha + (1t arang sekam/ha + 3L POC tanah/ha + 3L POC daun/ha + 6% pestisida nabati + 6% metabolit sekunder + 6% PGPR + 6% fosfat nabati); D (20t Pupuk kandang/ha + 1t arang sekam/ha + 3L POC tanah/ha + 3L POC daun/ha, E (20t Pupuk kandang/ha + 1t arang sekam/ha + pestisida nabati, maja gadung (6%)+0.04g Mikorhiza/tanaman, dan F (20t Pupuk kandang/ha + 100 kg urea/ha + 50kg Phonska/ha + Pestisida kimia sintetis. Setiap perlakuan diulang empat kali dan unit unit percobaan diatur sesuai dengan Rancangan Acak Kelompok Lengkap. Hasil menunjukkan bahwa dua terbaik rakitan teknologi adalah: rakitan C (20t Pupuk kandang/ha + 1t arang sekam/ha + 3L POC tanah/ha + 3L POC daun/ha + 6% pestisida nabati + metabolit sekunder+ PGPR + fosfat nabati), dan rakitan A (20t Pupuk kandang/ha + 1t arang sekam/ha + 3L POC tanah/ha + 3L POC daun/ha + 6% metabolit sekunder+ 6% pestisida nabati). Hasil tomat yang diberi perlakuan C dan A berturut turut sebesar 3,646 t/ha dan 3,221 t/ha. Kata kunci: Tomat, organik, pupuk cair, arang sekam, metabolit sekunder</p>
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