

## SUMMARY

**Laila Nur Nujuma. 0810480177. Arrangement of Application Technic Organic Matters on Cucumber's Cultivation (*Cucumis sativus* L.). Supervised by Prof. Dr. Ir. Ariffin, MS. as first supervisor and Ir. Ninuk Herlina, MS. As second supervisor.**

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Dry land is a land that can be used for agricultural businesses with limited water and usually depend on rain. Water is very important role and needed for growth and plants development. Cultivation Activities of dry land are generally determined by selecting plants land characteristics, especially drought-resistant. Cucumbers (*Cucumis sativus* L.) are quite adaptive and has many benefits. Strategy of cultivation on dry land beside that choosing the suitable plant species, also needed the technology which is able to conservated soil water to maintain soil water content, so that can support the growth. The selection of organic matter because organic matter is an alternative in the face of the condition of water minimum. The purpose of this research is to get technic application of organic matters that can hold soil water. Hypothesis of this research is cow manure mixed with soil can optimize water holding capacity.

Research was done in screen house using polibag, in Kepung Village, Kepung District, Kediri Regency from January 2013 until March 2013, with latitude 132 m above sea level and the soil type is regosol. Tools needed for this research is hoe, ruler, roll meter, sickle, bamboo stick, rope, analitic scale, digital thermohyrometer, and camera. Material was, cow manure, waste bagasse, husk, husk fuel, straw, Harmony Variety, SP 36, Urea, KCl, and pesticide. This research is non factorial experiment using Randomized Block Design (RBD), with 10 treatments and 3 replications, the treatments are P1 (Cow manure applied by spread), P2 (cow manure applied mixed with soil), P3 (Waste bagasse applied by spread), P4 (Waste bagasse applied mixed with soil), P5 (husk applied by spread), P6 (husk applied mixed with soil), P7 (husk fuel applied by spread), P8 (husk fuel applied mixed with soil), P9 (straw applied by spread), and P10 (straw applied mixed with soil). Observation parameters of growth is non destructive, observation of yield, and observation of environment. Observation of growth are plant length, total leaf, fruitset (%), flowering day, fruitseting day, harvesting day. observation of yield are fruit length/plant, fruit diameter/plant, harvesting yield/plant, fruit weigh/plant. observation of environment are, soil temperature, soil humidity, and organic matter. The data were analyzed by using the F test with 5% level. If data was significant different, then continued with the Least Significant Different (LSD) test at of 5% level.

The result showed that treatment of arrangement of application technic organic matters that consist of cow manure, waste bagasse, husk, husk fuel, and straw with applied by spread or mixed with soil able to maintain soil water content in the cultivation of cucumbers.