Kornthima Juthong 2006: Effects of Organic and Chemical Fertilizers Management and Crop Residue Management on Yield and Quality of Sweet Corn. Master of Science (Agriculture), Major Field: Agronomy, Department of Agronomy. Thesis Advisor: Associate Professor Ed Sarobol, Ph.D. 193 pages.
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Experiments on management of organic fertilizer, chemical fertilizer and crop residue for sweet corn production were conducted on farmer's field at Tambon Phaya Yen, Pak Chong District, Nakhon Ratchasima Province. The objectives of the experiment were to evaluate the residual effects of organic fertilizer and crop residue and evaluate the effects of rates of organic and chemical fertilizers on yield and quality of sweet corn. A Split split plot in RCBD was used with 4 replications. Main plots were chicken manure at the rates of 0 and 1 ton/rai the sub plots were chemical fertilizer (15-15-15) at the rates of 0 and 50 kg/rai and the sub sub plots were crop residue removal, either residue removal (-RS) or residue were left in the field and incorporated into the soil at the next planting. Insee2 sweet corn hybrid was planted for 4 crops (crop 1: Apr-Jun 2004; crop 2: Jul-Sept 2004; crop 3: Oct-Dec 2004 and crop 4: Jan-Apr 2005. Crop 4: Jan-Apr 2005, only in crop 4 that corn was unfertilized with organic and chemical fertilizer), and 4 fields (4, 3, 2 and 1 crops were planted in field no 1 to 4, respectively). Identical treatments were planted onto the same plots (crops were repeated). For all parameters studied in each crop within the same field no, the results revealed non-significant differences between treatment means. Conclusion could not be drawn to what extent that the residual effects of organic and chemical fertilizer and crop residue management have on growth, yield and quality of sweet corn. Analysis of the experimental fields illustrated a high fertility soil. Considering the average grand total of husked-ear yield among crops within the same field no and among field within the same crop, the trends showed the residual effects of crop residue and fertilizer management.

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