Ammorn Tongbantum 2014: Effect of Tillage Systems on Yield and Yield Quality of Baby Corn. Master of Science (Agricultural Research and Development), Major Field: Agricultural Research and Development, Faculty of Agricultureof Kamphaeng Sean. Thesis Advisor: Assistant Professor Pramote Saridnirun, Dr.Ing. 76 pages.

The study on effect of tillage systems on yield and yield quality was designed in 3x4x2 Factorial in RCBD with four replications. Were studied at the experimental field of Agriculture at Kamphaeng Saen, Kasetsart University, Kamphaeng Saen Campus. Continuous planting along 4 continuous crop with the tillage types were conventional tillage, tilled in 1st and 4th crop and no till in 2<sup>nd</sup> and 3<sup>rd</sup> crop practice and till only 1<sup>st</sup> crop and no till in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> crop practice. This experiment was studied in 2 baby corn varieties as PenNueang and Pasific 271. The results showed that the agricultural traits, yield and yield quality were not significantly of tillage types. While, the agricultural traits, yield and yield quality were not significantly of tillage types. While, the tilled in 1<sup>st</sup> and 3<sup>rd</sup> crop and no till in 2<sup>nd</sup> and 4<sup>th</sup> practice had a unhuked vield per rai, huked vield per rai and marketable vield per rai more than till only 1<sup>st</sup> crop and no till in 2<sup>nd</sup>,3<sup>rd</sup> and 4<sup>th</sup> practice but not difference with conventional tillage. Howere, the yield and yield quality in 1<sup>st</sup> crop highest value and decreased in subsequence crops. The baby cron Pasific 271 variety had a unhusked yield per rai, husked yield per rai and marketable yield per rai about 1,142.4, 286.7 and 216.0 kilograms per rai which more of Pennueang variety, the interaction between factors was found such as interaction between tillage practice and crop season (plant height, ear weight, husked ear weight and marketable husked ear weight) and most of yield and quality of baby corn had interaction between crop season and variety. This study suggested that the reduced-tillage and no-tillage could be used in baby corn production. Because had yield not difference with conventional tillage and was save cost.

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