

Chaiya Pongsri 2006: Effects of Planting Dates, Varieties and Plant Population on Soybean Growth and Yield in Phanom Sarakham District, Chachoengsao Province. Master of Science (Agriculture), Major Field: Agronomy, Department of Agronomy. Thesis Advisor: Associate Professor Ed Sarobol, Ph.D. 89 pages. ISBN 974-16-2198-1

Soybean growers in Phanom Sarakham district , Chachoengsao province , have encountered yield losses due to heavy rainfall during harvest. Thus, the experiments were conducted at Khao Hin Sorn Research Station , Khao Hin Sorn sub-district , Phanom Sarakham district , Chachoengsao province during June - October 2004. The objectives of the experiments were to study growth and yield responses of soybean to different planting dates and population densities so as to obtain proper planting date and population density to avoid the stated problem. Treatments were arranged in split plot design in RCBD with 4 replications. Two experiments were carried out. Experiment 1 was set up to test planting dates and population densities where the main plot was 3 planting dates(30 June, 15 July, 30 July 2004) and the sub plot was 4 population densities (200,000 300,000 400,000 and 500,000 plant / ha). The experiment 2 was designed to study the response of different soybean cultivars to different planting dates. Planting dates identical to those used in experiment 1 were main plots and soybean cultivars (CM 60 , ST 2 , SJ 5) were sub plots. The results revealed that soybean yielded differently under different planting dates and the differences were statistically significant. Planting soybean in 15 July gave the greatest grain yield of 168 kg/rai. The optimum plant population was 400,000 plant / ha where soybean yielded the greatest (158 kg/rai). Among the 3 cultivars, CM 60 outyielded ST2 and SJ 5 (161 , 147 and 146 kg / rai, respectively) and the differences were highly significant.

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