

STUDYING THE EFFECTS OF PLANT DENSITY AND DOSES OF NITROGEN FERTILIZER APPLICATION ON GROWTH, DEVELOPMENT AND YIELD OF L18 PEANUT VARIETY IN SUMMER-AUTUMN SEASON IN HOA BINH PROVINCE

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Summary

The experiment was conducted in 2017 at Yen Thuy district Hoa Binh province to study the effects of plant density and doses of nitrogen fertilizer application on growth, development and yield of a peanut variety L18. The two factor experiment was lay out as Split Block Design with 12 treatments and 3 replications. Nitrogen was applied on the main plots of 40 m², plant density was designed in the sub-plots. There were 3 doses of nitrogen applied in the experiment: N1: 20 kg N/ha, N2: 40 kg N/ha and N3: 60 kg N/ha with base of 8 tons of organic manure + 90kg P + 60kg K + 500 kg lime. There were 4 plant densities in the study: M1 for density of 22 plants/m² (30 cm x 15 cm/seed), M2 for density of 28 plants/m² (30 cm x 12 cm/seed), M3 for density of 33 plants/m² (30 cm x 10 cm/seed), M4 for density of 42 plants/m² (30 cm x 8 cm/seed). The results of the experiment showed that there were significant different effects of plant densities and doses of nitrogen applied on growth (primary branches, main stem of peanut), yield components and yield of L18 peanut variety. The combination of N2 (40 kg N/ha) and plant density of M2 (28 plants/m²) gained highest yield about 3018 kg/ha with the return of 49.080.800 VND.

Key words: L18, density, doses of nitrogen fertilizer.