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A-11 Improve the productivity of chervil plant (*Anthriscus cerefolium* L.)

Under effecting of planting distances and fertilization

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Abstract

This investigation are being carried out at Al-Adlya Farm, Al-Sharkia Governorate (50 km north Cairo) to evaluate the effect of planting distances , NPK fertilizer and compost on Chervil plants.

This study divided into two parts:

1st part: Effect of Planting distances: 25cm - 30cm - 45cm 2nd part: Effect of NPK (0, 25%, 50%, 75% and 100%) and/ or Compost (10, 15 and 20 m³/acre). NPK recommended dose for parsley. Data indicated that the increment of sowing distance from 15cm to 45cm increased gradually vegetative growth parameters. The highest mean values of oil percentage were resulted from sowing distance at 45cm followed by 30cm. Compost at 20Ton/acre. gave the highest values of growth characters and essential oil (%). NPK fertilizer levels caused very noticeable effect on different growth parameters compared with untreated plants. Thus, 100% of NPK gave the maximum values of different traits parameters and essential oil (%). Concerning the effect of the combination treatments between NPK and compost had a great effect on growth traits and essential oil (%). The combination treatment between compost at 20Ton/Fed. and NPK at 100% gave the greatest values of growth characters and essential oil%. Essential oil constituents were identified with GC-MS.

Keywords: Chervil, *Anthriscus cerefolium*, compost, NPK, essential oil, sowing distance