

## ABSTRACT

### THE EFFECT OF TILLAGE, SOWING AND PLANTING METHODS ON SOME SOIL AND PLANT PROPERTIES IN SECOND CROP COTTON IN SÖKE PLAIN

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In this study; effects of sowing and planting methods on moisture content of soil, dry bulk density, porosity, penetration resistance, aggregate size, soil temperature, seedling emergence degree, the average shoot-out time, true leaf ratio, plant height, squaring and flowering date, number of square and bolls, seed cotton yields, earliness, ginning outturn and fiber quality were studied and measurements were evaluated in second crop cotton cultivation on Söke plain. Direct sowing, ridge planting, reduced tillage and seedling planting on stubble technics was used on this research. Moisture content for seedling planting on stubble, direct sowing, ridge planting and reduced tillage methods were determined respectively %17.35, %17.29, %16.82 and %15.87. Penetration resistance was calculated for seedling planting on stubble 1.81 MPa, for direct sowing 1.80 MPa, for ridge planting 1.69 MPa and for reduced tillage 1.30 MPa. The best seedling emergence degree was found 58% with reduced tillage method and following 56.67% with direct sowing method, 53.33% with ridge planting method. Seed cotton yields was calculated respectively 398.33 kg/da for ridge planting method, 374.33 kg/da for seedling planting on stubble method, 361.67 kg/da for direct sowing method and 352.00 kg/da for reduced tillage method. Seedling planting on stubble method was found the earliest with 81%. The earliness were respectively observed 66% for ridge planting method, 60% for direct sowing method and 53% for reduced tillage method. Ginning outturn and fiber quality were not found significant for all methods. As Conclusion, Ridge planting second crop cotton cultivation was found applicable for after ridge planting wheat on Söke plain. When we compare the all methods, Seedling planting on stubble method provides 15-20 days earliness for second crop cotton cultivation.

**Keywords:** Ridge planting, direct sowing, seedling planting, second crop cotton