Productive efficiency of some soybean cultivars in relation to sowing dates

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Four field experiments were performed in each year at the Agricultural Experimental Station of the NationalResearch Center at Shalakan, Kalubia Governorate during 1988, 1989 and 1990 seasons to study productive efficiencyof some soybean cultivars in relation to sowing dates. Four field experiments were sowing at four dates at fifteen dayintervals,starting on 1st May. This means that sowing date were 1st May, middle of May, 1st June, and middle of June. Every experiment included nlne soybean cultivars. ·The experimental design was complete randomized blocks design with six replications in each planting date under study. Ten plants were taken at random from three replications at 54,82 and 110 days after sowing to determine the growth measurements. I) Source capacity studies 1- Growth measurements 1- Plant height (em). 2- Number of .branches/plant. 3- Number of leaves/plant. 4- Number of pods/plant.5- Dry weight of pods (g)/plant. 6- Dry weight of leaves (g)/plant. 7- Dry weight of stems (g)/plant. 8- Leaf area (L.A.)/plant (cm2). 9- Leaf area index (L.A.I) ”cm2/cm2”. 2- Physiological parameters : 1- Net assimilation rate (NAR) ”mg/cm2/day”. 2- Crop growth rate (CGR) ”mg/cm2/day”.]- Relative growth rate (RGR) for the leaves ”mg/mg/day”.4- Relative growth rate (RGR) for the pods ”mg/mg/day”. 5- Relative growth rate (RGR) for the whole plant IImg/mg/day”. 11- Sink capacity studies 1- Seed filling studies : 1- Seed filling rate ltg/day”. 2- Effective filling period.