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EFFECT OF MULCH TYPE AND PLANTING METHOD ON YIELD AND YIELD COMPONENTS OF FIELD CUCUMBER UNDER BROOM RAPE STRESS

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INTRODUCTION

Using plastic mulch lead to maintaining moisture, high yield, weed control and so on.Today using transplant is a usual method for earliness. Broom rape is an important limitation for cucumber production in iran. One of the aims of the current study was broom rape controlling.

MATERIALS AND METHODS

In order to determine the effect of mulch type and planting method on Yield and Yield Components of Field Cucumber cv. Super Dominos under broom rape stress, an experimental factorial based on randomized complete block design was conducted with four replications in Beiranshar, Khorram Abad, Lorestan Province. The mulch had four levels (clear polyethylene mulch, dark polyethylene mulch, hydroflume mulch, and without mulch), and planting method consisted of two levels (seeded and transplanted). with 100% broom rape infestation in all treatments. Data were tested to ANOVA in SPSS ver. 16.

RESULTS AND DISCUSSION

Result showed that using mulches (clear, dark and polyethylene) had significant effect on number of fruit per plant, average fruit weight, early yield, total yield and broom rape controlling. planting method and mulch by planting method interaction affected on average fruit weight, early and total yield. Transplanting method using polyethylene mulch (dark and clear) with 192 and 185 g per plant, respectively, produced higher early yield. The transplanting method by dark mulch produced the highest total yield (1882g per plant). The clear mulch by seeding method with 0% broom rape infestation was the most effective in controlling Broom rape. Results suggest to use polyethylene mulch (dark and clear), and transplanting method for producing early cucumber as well as using mulch to reach higher yield and controlling Broom rape.

Key words: Broom rape, Cucumber, Earliness, Mulch, Transplant

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