

Effect of Planting Date on Different Parts of the Root Yield Corn Silage

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Abstract: Man with all the progress made in agriculture is still suffered the problem of food poverty in some parts of the world. The aim of this research was to investigate the effect of planting date on the root yield Corn Silage because with increase parts underground of sections air will be more growth. This research on three planting dates May 19, 17 June and 22 July as main factor levels and the size of the root at the time of transfer along with a seed direct seeding treated as a witness as sub factor for the design of a split plot done in format of blocks design randomized complete with four replications. Results showed that between planting date treatments, there is a significant difference in root yield per hectare. May 19 planting date mentioned in terms of traits with production of root yield is showed superiority equivalent to 77/66 tons per ha.

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1. Introduction

Human with all the progress made in industry and agriculture has still the problem of food poverty in some parts of the world (Sepaskhah et al., 2006). Corn Silage is plant that for providing part of the energy needed for animals, especially in Third World countries that have a special place; This plant is always as one of the interface products between agriculture section and meat industrial. Production of food of crop plants for humans and other living organisms is crucial so that about 70% of the world's food is obtained directly from agricultural plants.

Some of crop plants in addition to producing food for humans produce raw materials with valuable for industrial processes. Therefore the present research has intends to examine at three different planting date in success rate for this procedure and with investigating the results of effect this method on product performance has way in order to solve this problem.

2. Materials and Methods

This research was conducted in 1393 at the research station of Karaj. Practices for tillage and heavy ground experiment are involving deconstruction, deep plowing and leveling discs that were conducted in the fall. Before the first date of planting was done mix sampling from soil depth 30-0 to 60-30 cm of soil; Soil texture and amount of nutrients available in its were determined. This research as plot once split plot is done based on design of blocks randomized complete with four replications. Levels of planting dates to main plot and size of the

radicle at the time of transfer along with a direct seeding treated as a witness was assigned to sub plots.

2.1 Statistical evaluation

Analysis of Simple variance based on model experiment of plot once split plot in format of statistical designs of randomized complete blocks was conducted. Average results by using Duncan's multiple range test (DMRT) were compared at the level of 5% to draw figures by Excel software was used.

2.2 Effect of planting date and size of radicle on the root yield

The fresh weight of root or root performance parameter is small compared in corn silage that has a significant impact on amount of yield sugar production per hectare. This parameter is influenced by many factors including cultivar, environment and cultural practices. The analysis of variance Data indicated that planting date and size of the radicle on root yield has significantly relation (at 1%). (1) Results showed that effects planting date on root yield shows. Planting dates May, June and July, in the levels of probability one percentage have significant effect on root performance.

The results of this study showed that delay in sowing has been due to sharp decline in root performance; May planting date with equivalent performance 71/67 and planting date of July with a performance 42/44 tons per hectare respectively showed highest and lowest root yield. In the meantime June planting date equivalent to 61/53 tons per hectare produced intermediate performance. Hence delay in sowing date was reduced root yield so that the second

and third planting date compared to first planting date reduction respectively have equivalent to 82/20 and 39/34 percent. It is noteworthy that the effect of reducing the delay in planting has been more over time. Thus, according to the results achieved by

increasing during the growth period increased root performance; So that the lowest root yield was related to third planting date and it's highest to the first planting date.

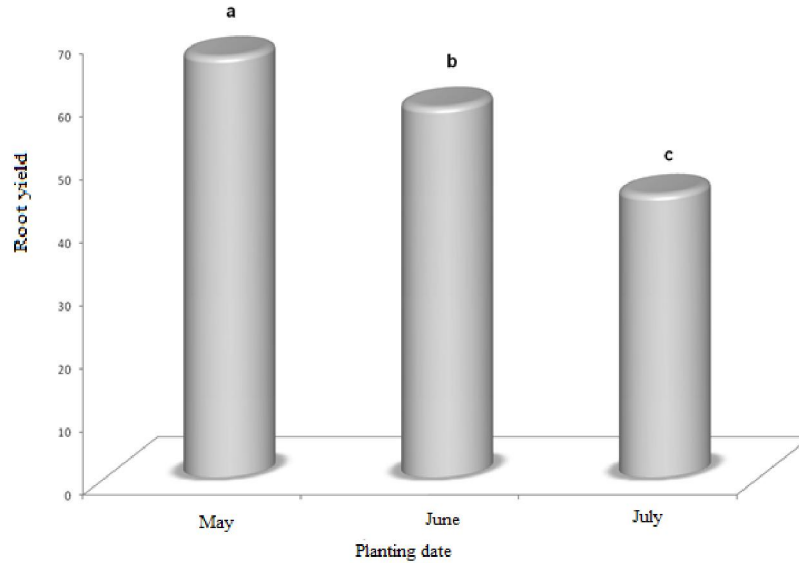


Figure 1. Results of effects planting roots

Also analysis of data variance and mean comparison demonstrates a significant difference was between the two culture method and transplanting planting method has been significantly causing increased root yield. Figure 2 results showed that effect the size of radicles root and direct seeding on root yield. Direct seeding, the size of the radicle to 5/1, 5/1 and 3 5/4 cm to 3% have significant difference in probability level one percent on performance their

roots. radicle size 3 to 5.4 with performance equivalent to 64 tons per hectare compared to two size of the radicle to 5/1 and 5/1 to 3 and direct seeding, respectively, with performance 84/53, 87/58 and 29/44 tons ha have superior. Hence highest and lowest yield rate root relative to size of radicle 3 to 5.4 and was direct seeding that amount of this reductions in direct seeding is proportion to the size of the radicle 3 to 5.4 equivalent to 30.7 percent.

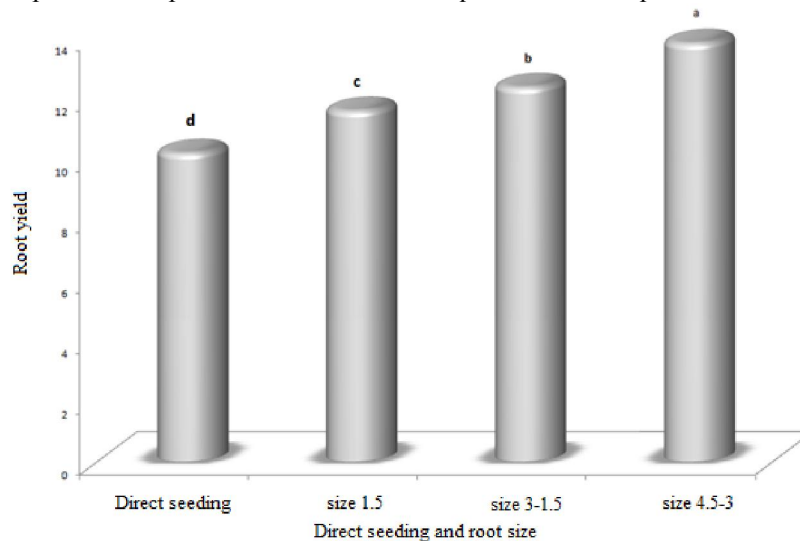


Figure 2. Shows the results of size effect of radicle on performance root

The results of the investigation and research conducted in about planting date and results it's on performance roots of Corn Silage, indicates the fact that early sowing early in the season badly on affect root yield and increase the per unit area. Many researchers with conducted several an experiment in different regions, early sowing dates superiority in terms obtaining performance roots appropriate reported and pointed out that with increasing during the growth period and delay in harvesting is increasing root performance (Orazizadeh, 1996, Sharifi, 2001; Hasib et al., 2010). Increasing during the growth period has increased the root yield (Azizi, 1999; Habibi & et al., 2004; Ashraf Mansoori, 2000 and 2005; Seyed Sharifi et al., 2006; the Ahmadian Yazdi, 2005, Mohammadyan and Afshar, 2004, Fethullah Taleghani et al., 1999; javaheri et al., 2005; Saif Oldini, 2001; Nasri, 1381; Roshdi and Rezadoost, 2001 ; Sögüt and Aroglu, 2004; Feller and Frink, 2004 ; Ozturk et al., 2008).

According to report Habibi & etal came highest yield of Corn Silage in Karaj area in fifth March (Habibi et al., 2004). On the other hand performance plants that on different dates have been cultivated directly with the amount of radiation received in the period between planting and harvesting is related. Since the most major constraint Corn Silage in achieving to actual performance and inability to absorb radiation is detected early in the growing season (Scott and Jaggard, 1978), it is expected that the delay in the time of planting through non-proliferation to when shadow plant and lack of synchronicity LAI maximum with the most exposure to radiation and eventually produce smaller roots (Habibi et al., 2004) and therefore are impossible to achieve high performance (Fortun et al., 2002). So during the growth period considered as one of the most main describing factors of Corn Silage performance changes (Durrant et al., 1993 ; colver et al., 2001 ; Fornstorm et al., 1983). Cakmakci and Tinger (2001) Increase performance yield reported from planting on time for root weight from 440 grams to 675 grams. Beshiet and Gharbawy (1991) with planting all the cultivars Corn Silage found that in cultivation when increases the weight of a single root, sugar content and extraction coefficient of sugar. Other researchers have reported similar results (El-Kassaby and Leilah, 1992; Ghonema, 1998). On the other hand, delays in planting date of Corn Silage also are caused Krempe plant and reduce product performance (Lauer, 1995). Jaggard and Scott (3199) also at their study observed that early sowing Corn Silage increases the performance the final product. Also cultivation of Corn Silage in three planting dates and harvesting produce in four different dates in Turkey showed that highest root yield (53/52 tons per

hectare) of early sowing (16 April) and harvesting late (21 November) was obtained (Okcu et al., 2005). Results this experiment with findings Roshdi & Rezadost (2004) has corresponded based on reducing the performance roots in late planting dates (late).

5. Conclusion

In general, from results this research, it appears that early planting date (May) in term of performance roots have better situation.

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