Evaluation of Good Mechanical planting Seed Wheat in the City Shoushtar

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ABSTRACT

In recent years the use of cultivation techniques that could properly prepared seed bed and Seeds should be planted at a depth of almost uniform, more than ever, has become a necessity appropriate device. Wheat includes a driller of work Jeiran industry. The slot opener Bouncy, a driller Barzegar Hamedan and Taka driller mechanical work were evaluated in terms of quality planting. Were compared. Comparison at the 5% level indicated Uniformity and accuracy in the depth of planting, Jeiran industry seed device Hamedan Barzegar with mean 1/55 and 1/68 cm in one group Taka mechanical work in other group and seedling with an average 2/56 centimeters in is located the other group. In terms of percentage growth bushes Jeiran device industry with an average 74/93 percent in group A and the Seed devices Hamedan Barzegar, with an average 56/84 percent In Group AB and mechanical devices Taka seed with an average 49/17% respectively in group B. Jeiran seed device industry compared to other seed set was superior. In terms of plant establishment after overwintering Jeiran seed device industry, with an average of 67/13% in group A and Seed Barzegar Hamedan and mechanical devices Taka, respectively, with an average 47/17 and 38/90% were in group B. For this reason Jeiran seed device industry compared to other planters was superior.

INTRODUCTION

Wheat is one of the strategic products; the value of food is of utmost importance. Annual average of 16 to 17 percent of the world's arable land is allocated to wheat (2). In Iran, surface equivalent to 6/2 million hectares are devoted to the cultivation, that this amount 2/2 million acres will be irrigated wheat. Also implementation of new methods of mechanized in agricultural sector planting crops. One of the basic aims of the overall production that will be increase the productivity and sustainability of this production. Mechanical methods and new planting, consistent with conditions of interior country applying to be implemented small farms. Improving crop production can be useful, especially wheat considerably Afzaliniya. Two types of common work driller in Fars province. In terms of various factors such as accuracy, depth of planting, precision fit between the longitudinal distance seed, side scatter seed, Seeds percent fracture and The effective capacity farm Laboratory compared. The results of this comparison showed that the percentage of broken seeds In the laboratory and in the field planting depth, there is no significant difference. The percentage of broken seeds in the field, Driller of work Isfahan Senabol is a low broken In other cases, driller pneumatic work have been successful in Hamedan. Due to better absorb nutrients phosphate and potassium fertilizers on wheat compared to specified The placement of fertilizer below the seed at a distance of 5 cm between rows increases yield and is increased grain protein). Currently the wheat cultivation in Iran has particular importance. However, due to lack of familiarity and the problems of farmers and agricultural experts, With the device common seeds due to excessive consumption of seeds and traditional irrigation due to excessive consumption of water. Need to introduce proper planting wheat cultivation is absolutely necessary. Assuming that such measures can be suitable for planting wheat cultivation seeds at the proper depth. With placement of fertilizer to farmers presented below it. In addition to reducing the consumption of seeds per hectare and reduce costs, it also improves performance [3, 2].

MATERIAL AND METHODS

This research in northern of Khuzestan province, in the warm temperate climate city Shoushtar, was conducted in land area of 6500 square meters in Shoushtar. For Cultivation of wheat was tested. Before...
implementing tests from soil at various depths 0-30 and 30-60 cm Composite samples were prepared and in laboratory analyzed soil type was Loamy fertilizer recommendations based on this analysis was determined The experimental treatments The Jeiran Driller work Technology Arak and Work Driller Barzegar Hamadan Taka driller work mechanical. Chamran wheat at a rate of 210 kg with Texture silty loami soil ha were planted after wheat harvest Waterlogging irrigation method and fertilizer according to soil test done data from the experiment with the software implementation of M STAT-C In a randomized complete block design (RBD) was a single-factor analysis. Studied characteristics include accuracy in uniform planting depth, percentage of fracture seeds, percentage of green plants; plant growth rate is precedent plant establishment [5].

1 - Planting depth: for measuring and planting depth a total of 20 plants out of the soil after determining location (location of plant color change) cut length, length the subsoil was measured by a ruler and thereby average planting depth was determined at each replication [4].

2-speed greening: Achieving green growth stages including tillering (more than 50% of the plants went tillers) were recorded. - Mechanical damage to seeds or percentage of fracture seeds were measured Seeds that fall outside of the tubes and Total number of seeds collected in seed set and seed Broken selected samples counting with the use of following formula percentage of broken seeds and Seed was calculated for each device [1].

\[ A = \frac{n}{N} \times 100 \]

n: number of broken seeds
N: total number of seeds

- The degree of weeds contamination: before use of herbicide Types of weeds and their number By dropping frames randomly in an area of one square meter, five points clear of the experimental treatments were calculated Chemical control of weeds, poison clodinafop PeruParjil (Topic 180 Amolisiyon) The value of 1 liters per hectare to fight the narrow leaf weeds and poison more Benron mitil 75% (Granstar) The amount of 25 grams per hectare to combat broadleaf weed mix And sprayed at the appropriate time according to the history and culture of tillering was done.

- To measure the percentage of seed germination at field level using a square box 1 × 1 inside the box counting germination and seed germination percentage was calculated using the following formula [1, 2].

\[ E = \frac{n_1}{n_2 \times v \times p} \times 100 \]

n1: number of Green Seeds
n2: number of seeds planted
v: seed viability
p: percent purity

The plastic limit is the water content at which a soil begins to crumble when rolled into a thread approximately 3 mm in diameter Organic matter content was determined and particle size distribution measured by the pipette method [5].

**Table 1**: Selected physical properties of the Silty clay loam soil

<table>
<thead>
<tr>
<th>Soil layer (mm)</th>
<th>Silt (g kg⁻¹)</th>
<th>Clay (g kg⁻¹)</th>
<th>Sand (g kg⁻¹)</th>
<th>OM (g kg⁻¹)</th>
<th>PL (g kg⁻¹)</th>
<th>MWD (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>535</td>
<td>354</td>
<td>100</td>
<td>12</td>
<td>22</td>
<td>1.3</td>
</tr>
<tr>
<td>100-200</td>
<td>525</td>
<td>338</td>
<td>110</td>
<td>9.6</td>
<td>21</td>
<td>1.5</td>
</tr>
<tr>
<td>200-300</td>
<td>527</td>
<td>312</td>
<td>120</td>
<td>8.5</td>
<td>20</td>
<td>1.6</td>
</tr>
</tbody>
</table>

OM: organic matter; \( w_p \): water content at plastic limit; MWD: mean weight diameter

**RESULTS AND DISCUSSION**

The results suggest that the origin of natural fractures Seeds 3/8 percent , Jeiran seed device industry with 6% crushed seeds of the lowest amount Hamedan Barzegar with 13/66% of maximum amount Taka mechanical seed devices with 9/6% had a moderate case of a fracture . Summary results of the variance analysis are presented in Table 2 Characteristics of uniformity and accuracy in planting depth, plant establishment, the percentage of green plants are significant at the 1% level. Average data at the 5% level (Table 3) shows Uniformity and accuracy in terms of quality planting depth Jeiran seeding device Industry Arak And Hamadan, respectively, with an average of 1/55 and 1/68 cm In one Group Taka mechanical devices with an average seed of 2/56 cm in the other group is located The percentage of green plants, seeding device Industry Jeiran With an average of 74/93% in group A Seed Barzegar Hamadan devices with an average seed 56/84% in group AB Taka seeding machine with an average seed 49/17%were in group B this reason Jeiran seed device industry is superior to the other two device The plant establishment after overwintering, Jeiran seed device industry, with an average of
67/13% in group A, and Barzegar Seed device Hamadan and Taka, respectively, with an average of 47/17 and 38/90% were in group B, Jeiran seed industry device was better than the two other planters

REFERENCES


