Comparing of new figure of Zare wheat performance with Zagross figure performance in Germy of Ardabil

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ABSTRACT
The continuation of self-sufficient in producing wheat and answering to people nutrition need is necessary case. Of its solving can point to increasing produce in level section with introducing new statistic, full produce, suitable characteristic of farming and familiar farmers with last studies and new statistics. In this study, because of introducing and replacement with available statistic in region, evaluate new statistic of Zare wheat with Shahed statistic of Zagross during 91-92 in Nurollah village of Germy. Preparing function of earth was in October and planting time was December. During growing season done average lookout and note some characteristic such as green percent of product, the number of growing day and complete growing, herb height and illnesses in every statistic and then compare above performance with Zagross. The results illustrated that new statistic and obtrude dry in end of farming season with 2.640 ton * hectare has excellence to shahed region and is suffering to yellow disease and brown disease with 58 cm height. This method can consider as replacement of shahed statistics like as Germy.

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INTRODUCTION

Wheat is of primary and important farming herbal in world and includes 19.6% of total nutrition reasons for world people. [7]. This herbal has most shares in nutrition, with considering its importance and wheat position in country and more exploitation of farming and environmental ability. Finding corrected statistics and full product and better quality has necessity to replace with wheat statistics. In other words, with considering its strategic methods as a primary food in our country and the necessity of self-sufficiently continue in providing this herb, increasing and more producing of this herb is necessary. With increasing diversity in wheat in country can improve produce power and replace available statistic with full product statistic and stable.

The wheat as an important product, allocates more area of soft earth to self.

In last year, the produce of wheat in Iran was the around of 15 million ton. This produce, harvested of 6.9 million hectare which 4.5 million was of soft earth and 10.1 million ton of water earth. The extent of soft earth and relating produce in this area depends on temperature decrease which has most fluctuation and increase clearly damaging of producing wheat.

With evaluating of laboratory results of grains in correcting studies institution and providing plant and seed can say that planting area is in cold origins of October until early November, in moderate origins of mid-October until late- November and in hot origins, of mid-November until mid-December. For each week of delay in cultivation from planting expire date, should add 10% to seed rate.

Cultivation in the tropics of Ardabil such as Moghan plain don't recommended in January, because that month is rainy. So face with some problems such as preparing function and providing earth. Second, because of decreasing in temperatures, Germination takes more time of 20 until 25 day and seeds will be in location of rush by insects, birds, fungus disease and decrease green percentage of produce. Thirdly, the growth of herb in this month which is colder month in origin done slowly and so the growing of wheat become short and pollen and filing seed face with delay and includes add temperature in pollen time of pollen of flowers and decrease of growing and its weight which cause decreasing in performance. [7].

In 2.7 million hectare wheat in country, in around of 1 million hectare is in cold region (includes west and east of Azarbaijan, Ardabil, Hamadan, Kurdistan, Zanjan, Markazi, Kermanshah).In this origins planting wheat
of winter grow and vision method. This origins with cold and longer winters and with more than 90 day frozen state in during one year including more than 1000 m height from sea level. [7]

Pregnant regions of warm climate in north includes Georgian, Gonad, Mazandaran, Mohan in Ardabil which are important regions in producing wheat and locates itself more than 450000 hectare of farming area. With considering earth capacity and regions similarity of temperature, providing consistent statistics is important from performance and resistance view. This region which includes 15% of planting area, have suitable condition for farming and have important role in producing wheat. This areas depend on yearly temperature produce wheat in around of 900000 until 1,360000 ton which accounts as an excellent wheat of qualities characteristics [9].

Moghian is important region in producing wheat with more than 30000 hectare in Ardabil. Ardabil located in farming view in 2 regions of Khezr (Moghian in north) and cold region (Ardabil in south).totally, evaluated farming wheat and soft in around of 350000 hectare. Cold region in Ardabil are important points in producing grains.

In farming year, in this region including Ardabil, Germi, Meshkinshahr, Namin, Nayer, kosar and khalkhal, planted wheat in around of 136000 hectare. Grain decreases such as yellow, brown, cold damage and dry in end of season are important factors in decreasing produce.

In Germy, wheat cultivation is in around of 68000 hectare. In this country, statistics of Zagross are (45%), Chamran (15%), Kuhdasht (30%) and other statistics (10%) which averagely harvest 1500 kg * hectare and producing yearly of wheat evaluated in around of 102000 ton.

Some factors such as increase in population and limitation in produce resource, using of corrected statistics and attention to ethnic and farming cases are important in maximum production. Also exact evaluating of different reactions in farmers condition in compare with yellow disease in origin is of other purpose in this research.

The study of wheat lines because of introducing statistics with high performance and also resistant to common disease in origin is one of important propagation and studies preference. Doing research and comparative designs in introducing wheat is of important stages in every statistic and guarantee confidence of consistency and compatibility in performance especially in farming condition and cultivation stages. For evaluating method in farming condition for introducing new statistics, doing study-propagation designs and research-comparative of past years is considerable. The purpose of doing designs is access to sure results because of showing practical solving and introducing statistics. In north regions, especially in Moghan doing of research-propagation design of wheat in farmers condition cause replacement Trajan statistics, Shiroodi, Chamran, Atta and Darya with cultivated some of this statistics in this origin. Also done research- propagation designs of kuhdasht wheat in Germy regions for introducing this method in farming [5].

In cold region such as Ardabil cultivated some wheat for example Caskogen, Gaspard, caissons, MV17. Also introduce Mahdavi statistics, Gods, Navix, Toss, Shiraz, Zaria and AL moot by central research and cultivated speciously after doing Anfarm designs in modest regions and cold regions. With evaluating seed performance in farmers conditions, introduce Azar -2 for cultivating in soft regions [5].

Wheat performance is producing the number of seed to external level and weight of seed in health study (1388) on different statistics of breed effect of statistic on seed characteristic, seed number in $m^2$ , seed number in virgin & seed performance is meaningful in around of 1%. But virgin number in $m^2$ don't become in effect of statistic. In Mahfuzi and his colleague's examination (1388), there wasn't meaningful difference of seed performance, seed weight and seed number in virgin in between statistics and different lines in bread wheat view, whereas higher performance getting of Gaspard. Also higher wheat was related to this statistic but higher seed number in virgin was related to Toss. Momeny and his colleague's (1389) reported difference between wheat statistics of seed performance view, virgin number in surface and seed weight in 1% error and about seed number in virgin in around of 5% error. Kamal and Sharif with evaluate in around of 3 year on different statistics reported that statistic effect on seed number is meaningful in virgin and based on compares of 3 years located higher statistics in Flat (46 seed in virgin) and Zarrin (52 seed in virgin) and lesser seed number in virgin is about doze (31 seed in virgin) and Rosh an (23 seed in virgin). Also their weight was different and higher weight was about Rosh an & Mohave (with 54 g) and lesser weight was about Atrak (37 g) and Marv dash (34 g).also the effect of statistic on seed performance was meaningful and produce much seed performance Gods (8218 kg * hectare) ,Kefir (6933 kg * hectare) , chamran (9928 kg * hectare). Lesser seed performance in during 3 years was related to Trajan (5439 kg * hectare), Flat (5189 kg * hectare) and Rosh an (6665 kg * hectare).

Khalilzadeh and his colleague with evaluating seed performance and reaction to yellow disease and virgin in hope lines of wheat in Moghan get result that N-81-18 line with high performance and difference in compare with yellow disease and virgin in both of irrigation condition, can be suitable case for introducing in Moghan in north of Ardabil. They illustrated that evaluating lines is both of irrigation condition cause exact evaluate in lines.
The new statistic of Zare, participate in examination and base on results of research designs in cold region stations produce high performance. Up to now don't perform for this line propagation design but about other cases, performed some designs and showing some reports. Planting this statistic wasn't same as other statistic and produce cost be fix but with considering high performance and total surfaces which was in around of 82000 hectare and considerable amount of this surface means 40000 hectare in cold origin, any increasing in performance with new planting and high power, increase farmers revenue and decrease import.

The purpose of this examination was introducing new statistic of Zare wheat for replacing soft statistic in cold region (such as Zaghross and Chamran), creating diversity in available statistics because of contrast with possible risks in facing with decreases and providing free possible for choosing formality product, increasing product with introducing full product statistic and familiar farmers with research finding in farming conditions.

Accomplishment method

This study does with evaluating performance and farming features of wheat in Germi which is of cold regions in Ardabil in Nurollihbaigi village. Geographical width was 29.10 and Geographical length was 48.20 and its height rom sea level was 759m.

According to table 3, the line and Zaghross and chamran statistics planted in 0.5 hectare. Farmer characteristic and design accomplish area are shown in table 1. Preparing functions done according to area tradition and with considering dust analyzing, distribute total of phosphate-Ammonia and 1.4 of urea fertilizer in farm and mix with dust by disk. Remind fertilizers uses in three stages, the seeds aseptic by vitawax because of contrast with darks. The amount of consumption seed determined on the basis of seed weight and density of 250 seed in \( \text{m}^2 \). Raining starts in early – December after cultivation and noted growing date separately in farm. With considering timing of function which are shown in table 2, during autumn, late winter and spring done review by specialists, researchers, promoters, supervisors and farmers and complete noting forms. In middle of April with considering climate conditions used of Ganister and topic methods for controlling useless grasses of dung leafs and narrow leafs.

Some important dates noted in below:

- Cultivation date: the date which done cultivation and first irrigation.
- Growing date: the time which 50% of herbs became green.
- Virgin date: the time which 50% of virgins went out of leaf sheath.
- The number of day until raining: the number of day from planting time until growing 50% of virgins of leaf sheath.
- Herbal height: the average of 10 herbal's height until end, then minus roots at cm.
- Grown date: the time of seed tighten (humidity is between 14 to 18 percent)
- The number of day until growing: the number of day of planting time until growing seeds
- Kipping percent: Including kipping percent with its canton of aplomb.
- Lines reaction's to decreases specially yellow & brown disease noted. In grown time, take 5 plates by chancy and recognized with label Because of measuring some factors such as the number of herbs, virgin length, the number of seed in virgin, the weight of seed in virgin in laboratory.
- Harvesting stage done in early Julie of 1392 and distributed performance of every section and generalized by hectare.

<table>
<thead>
<tr>
<th>row</th>
<th>city</th>
<th>village</th>
<th>Farmer name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Germi</td>
<td>Nurollihbaigi</td>
<td>Ghesmat namvar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>row</th>
<th>Prescription of function</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Choosing earth &amp; farmer</td>
<td>91/8/20</td>
</tr>
<tr>
<td>2</td>
<td>Doing earth function &amp; providing characters</td>
<td>91/8/30</td>
</tr>
<tr>
<td>3</td>
<td>Planting function</td>
<td>Early December</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(effective rain, 14 December)</td>
</tr>
<tr>
<td>4</td>
<td>Combat with weedy grass &amp; spray farm</td>
<td>Without weedy grass</td>
</tr>
<tr>
<td>5</td>
<td>Review &amp; necessary notes</td>
<td>In suitable time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; during farming season</td>
</tr>
<tr>
<td>6</td>
<td>Harvesting function</td>
<td>Early-Julie</td>
</tr>
</tbody>
</table>

Results And Discussion

A-farming grows:

On the basis of reviews and results of experimental farm, growing of new statistic of Zare wheat was very good. Because of high height in Zaghross statistic (68 cm) its density is less in planting time in compare with others.
B- Pull off versus diseases:

Zare statistic had comparative tolerance versus grains colors. Though during grow season, the condition was prepare for starting diseases specially yellow disease in Germy region but pollution studied on yellow and are shown by nominal and MR in table 3.

C- The number of virgin in $m^2$

The evaluation of virgin number shows that new statistic of Zare with average of 316 is allocated to this character. Of course, Zagross statistic hadn't more difference with 301 virgin in $m^2$

The number of virgin was in effective statistic (climate condition, dust kind, nutrition management and …). In healthy study (1388) on different statistic of bread wheat, statistic effect on weight characteristic, the number of seed in virgin and seed performance was 1 percent meaningful, but the number of virgin wasn't based on statistic effect.

In Emami & his colleagues study (1386) between different lines, there had meaningful difference of some views such as the number of virgin, the number of seed in virgin, seed weight, the number of virgin and seed performance. Whereas according to average comparisons, Niknegad had highest virgin number and Simreh had lesser virgin number. Simreh wheat had more weigh and Niknegad had lesser weight. Kuhdasht statistic includes most virgin number and Niknegad statistic produce most performance and Simreh produce lesser performance. They get result that most performance in Niknegad statistic can be with most number virgin, seed number in virgin and the number of virgin in $m^2$

D- Seed number in virgin:

The evaluation of seed number in virgin in wheat statistic in Germy illustrated Zare statistic in around of 27 seed in every virgin was better in compare with Zagross (table 4). Kafi and his colleagues (1384) illustrated that the number of seed in virgin in more area was based on environmental factor, whereas cramp factor decrease in seed number. So its effective will be important on performance.

G- Seed weight:

TKW is a suitable tool for evaluating wheat performance potential. Seed size is in direct relation with seed performance.

Seed's weight are different. in farming year of 91-92 cases had different weight because of temperature in last season and dry in Germy region and in contrast with past years, they cause with temperature in last season and in farmers language they face with seed wrinkle. In some years, thermal & windy ignition in last year caused decrease in weight and so will decrease final performance. In this evaluate tiny, higher weight was for Zare with 31 gr.

Sing and his colleagues [12] reported that seed performance has positive unity with seed number in virgin and its weight. They stated that the important character and share in seed performance is seed number in virgin and its weight. Attar bash and his colleagues (1381) reported that seed performance is in relation with increasing number and seed weight in virgin. Sob Hani and Cadherin [13] found direct relation of seed performance with seed number in virgin and its weight.

<p>| Table 3: shows the statistic’s performance and wheat lines in farming scale and on the basis of hectare. |</p>
<table>
<thead>
<tr>
<th>Kind</th>
<th>Earth dimension</th>
<th>area $m^2$</th>
<th>Performance (kg)</th>
<th>Performance (ton * hectare)</th>
<th>Herbal height</th>
<th>yellow</th>
<th>brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>zare</td>
<td>500 * 10</td>
<td>0.5</td>
<td>1320</td>
<td>2.640</td>
<td>58</td>
<td>5MR</td>
<td>O</td>
</tr>
<tr>
<td>zagross</td>
<td>500 * 10</td>
<td>0.5</td>
<td>1050</td>
<td>2.100</td>
<td>68</td>
<td>10MR</td>
<td>O</td>
</tr>
</tbody>
</table>

H- Seed performance:

In table 3, produce quantity of Zare and Zagross are written in farming scale which means Zare with 2.46 ton performance has priority. In this evaluating, Zagross statistic was in second degree with 2.100 ton seed performance. Also Mahfuzi and his colleagues found meaningful difference of seed performance view between statistics and different lines in bread wheat. They reported highest seed performance about Gaspard. With comparing statistic performance with each other can understand, this statistic with similarity temperature is suitable of Ardabil and can introduce it and replace with common statistic in region. The average of herb in this region and in 91-92 was in around of 58 cm and can plant in heavy dusts and in raining region.
Table 4: some connected characteristics with parts of statistic performance and wheat line in examination.

<table>
<thead>
<tr>
<th>Kind</th>
<th>The average of virgin number in $m^2$</th>
<th>The average of virgin length</th>
<th>The average of seed number in virgin</th>
<th>The average of seed weight in virgin</th>
<th>Seed weight</th>
<th>Rooty or Un Rooty</th>
</tr>
</thead>
<tbody>
<tr>
<td>zare</td>
<td>316</td>
<td>8.35</td>
<td>27</td>
<td>0.84</td>
<td>31</td>
<td>Rooty</td>
</tr>
<tr>
<td>zagross</td>
<td>301</td>
<td>6.5</td>
<td>22.5</td>
<td>0.71</td>
<td>28.3</td>
<td>Un Rooty</td>
</tr>
</tbody>
</table>

Gratitude:

We owe our thanks and appreciation to all of colleagues in Ardabil projects, respectable of farming center and natural sources of state and farming researches stations and natural sources of Ardabil (Alaravag) and also promotional colleagues in farming jihad organization of Germi that help us in all of study stages.

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