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INFLUENCE OF SOWING DATE ON THE PLACE OF THE LOWER FIRST POD OF LENTIL VARIETIES

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Abstract:

This article provides data on the norms and date of sowing, the location of the first pod of lentil varieties. In lentil varieties, the location of the lower first pod was found to be 1.9-3.2 cm higher in the Oltin don variety and 3.0-3.5 cm higher in the Darmon variety when the planting earliest date were exceeded. When lentil varieties were planted in the autumn and spring, the location of the lower first pod was found to be 0.1–0.2 cm, or homogeneous, and it was found that lentil varieties could be harvested without destroying the crop grown when the sowing date increased.

Keywords: sowing date, sowing norm, "Oldin don", "Darmon", location of the first pod.

INTRODUCTION

The standard of living of the country's population is assessed primarily by the fact that the members of society are provided with flour, bread, bakery products, pasta, cereals and confectionery from cereals. An alternative solution to this problem is the correct selection of crops based on their biological and economic potential in the cultivation of agricultural crops and the achievement of ecologically clean and high quality products, enriching the plant gene pool at the expense of new and forgotten agricultural crops with valuable characteristics. As a result of expanding the scope of creation of new varieties of crops, we have access to our own food products, which still replace the products entering our markets through imports.

According to the data, legumes differ from other groups of crops in their ability to fix atmospheric nitrogen and assimilate difficult-to-assimilate phosphorus compounds in the soil. Legumes absorb about 2/3 of the total nitrogen from the atmosphere and 1/3 from the soil when all living conditions are normal. Because legumes have the ability to fix atmospheric nitrogen, they are in great need of more phosphorus and potassium fertilizers [5].

Lentils are an annual herbaceous legume, the height of the stem is 15-75 cm. In terms of biological properties, spring, frost-resistant, shelf life 75-115 days, self-pollinating, used in food and fodder production. Green grass contains 8-10% protein, yield 15-25ts / ha [3; B.18].

Lentils root 1 m, stem 25-50 cm. The grains are round, flat, yellow, green, pink, gray, brown and black. Lentils are a long-lived plant, the seeds germinate at 3-4 0S, germinate quickly at 7-10 0S. Grows well in porous, loamy and gray soils, does not grow well in heavy, muddy and sandy soils [2; B.10-15].

According to S.E. Traubenberg, lentils are planted with 60-120 kg of seed, sowing depth is 4-6 cm during the period of mowing. After the lawn is dry, anti-plowing works are carried out. When the beans reach 50%, the crop is harvested, dried in a threshing floor and ground in combine harvesters, cleaned. Can be stored when the humidity reaches 14-15% [4; B.62-65].

According to H.N.Atabaeva, J.B.Khudaykulov, lentil varieties were tested in Uzbekistan in 1949 on dry lands. This work lasted 2-4 years. The stem of the "local" variety is 25-28 cm, the 1st pod is 13-25 cm, 1000 grains weigh 25-38 g, the shelf life is 75-100 days, the number of pods is 10-20, the seeds are small, the yield is 21.3 c / ha [1; B.212].

METHODS AND MATERIALS

Field experiments were conducted on the basis of methodological manuals "Methods of State sorting of agricultural culture" (1989), "Methods of conducting field experiments" (UzPITI, 2007). Statistical analysis of the obtained data was carried out using the program Microsoft Excel and on the basis of BD Dospekhov's manual "Methodology of field experience" (1985) by the method of analysis of variance.

Sowing dates and rates. Lentils are planted in autumn (late October, early November), spring (March) in areas free from repeated cereal crops (wheat, barley). Lentils are planted in seedbeds sowing cereals. 3 million seeds were used per hectare, sowing depth was 4-6 cm.

Taking into account the local conditions, the sowing date in the experiments was 3rd decade of october in the 1st variant, 1st decade of november in the 2nd variant, and 2nd decade ov november in the 3rd variant.

Crops were irrigated during the application period and fed with mineral fertilizers. Harvested when lentils are 60% ripe.

RESULTS AND DISCUSSION

The ability to harvest legumes without destroying them also depends on the location of the lower first leg of the crop, as legumes are branched and the branches may be at the bottom of the stem. On the side branches a lot of pods and grains are formed, the harvesters are not able to harvest on the very low branches, the crop remains in the field.

Experiments analyzed the location of the first lower leg in 2013 and found that when lentil varieties were planted in the fall, the Oltin don When the latest date were sown, the lower first pod was at 18.6 cm and the Darmon variety at 19.1 cm. When sowing norms are increased, the first lower pod is 1.9-3.8 cm high in Oltin don variety and 3.0-3.8 cm high in Darmon variety. Experiments In 2014, when the Oltin don variety was planted in the fall, the location of the lower first leg was 20.8 cm, while the Darmon variety was 20.5 cm. When sowing norms are increased, the first lower pod is 2.1-2.5 cm higher in Oltin don variety and 3.3-3.8 cm higher in Darmon variety.

The experiments analyzed the location of the first lower legume in 2015. When the lentil varieties were planted in the fall, the Oltin don variety was planted at 2.5 seeds, the lower first legume was at 19.5 cm, and the Darmon variety was at 19.8 cm. When sowing norms are exceeded, the first lower pod is 2.0-3.3 cm high in Oltin don variety and 2.7-3.5 cm high in Darmon variety.

Table 1

Influence of sowing dates and norms on the height of placement of the first pod in lentil varieties, cm

№	Options		Years			Average
	Cultivars	Sowing norms, mln, pc/ha	2013	2014	2015	
Sowing in autumn						
1	Oltin don	21-31.X	22,4	23,3	22,8	22,9
2	Oltin don	01-10.XI	20,5	22,9	21,5	21,6
3	Oltin don	11-20.XI	18,6	20,8	19,5	19,7
4	Darmon	21-31.X	22,9	23,8	23,3	23,3
5	Darmon	01-10.XI	22,1	23,8	22,5	22,8
6	Darmon	11-20.XI	19,1	20,5	19,8	19,8
Sowing in spring						
1	Oltin don	01-10.III	22,6	23,6	23,1	23,1
2	Oltin don	11-20.III	20,7	23,1	21,7	21,8
3	Oltin don	21-30.III	18,7	21,0	19,7	19,8
4	Darmon	01-10.III	23,1	24,0	23,5	23,5
5	Darmon	11-20.III	22,3	24,0	22,7	23,0
6	Darmon	21-30.III	19,3	20,7	19,9	20,0

When lentil varieties were planted in spring Experiments analyzed the location of the first lower leg in 2011. When the Oltin don variety sowed the latest date, the lower first leg was located at 18.7 cm and the Darmon variety at 19.3 cm. When sowing date are earlier, the first lower pod is 2.0-3.9 cm high in Oltin don variety and 3.0-3.8 cm high in Darmon variety.

Experiments In 2014, when the Oltin don variety was planted in the spring, the location of the first lower bean was 21.0 cm in the Oltin don variety and 20.7 cm in the Darmon variety. The variety is located at a height of 3.3–3.3 cm.

Experiments In 2015, when the Oltin don variety was planted in the spring, the location of the lower first leg was 19.7 cm in the Oltin don variety and 19.9 cm in the Darmon variety. When sowing date are increased, the first lower pod is 2.0-3.4 cm higher in Oltin don variety and 3.3-3.3 cm higher in Darmon variety. An analysis of the average 3-year data revealed that when both varieties were planted in the fall and spring, the location of the first pod was moderately high (Table 1).

CONCLUSION

In lentil varieties, the location of the lower first leg is 1.9-3.2 cm higher in the Oltin don variety and 3.0-3.5 cm higher in the Darmon variety when planting earliest date are exceeded. When lentil varieties were planted in autumn and spring, the location of the lower first leg was different from 0.1-0.2 cm, or found to be homogeneous, and lentil varieties were found to be harvested without destroying the crop grown when planting dates increased.

REFERENCES

1. Atabaeva H.N., Khudoykulov J.B.-Botany, Science and Technology, 2018, P.212
2. Воздельвание зернобобовых и крупяных культур в Акмолинской области (Рекомендatsii).Акмолинск, ТОО «Заречный», 2008, 26 с.
3. Технология весеннего сева зерновых, зернобобовых и масличных культур: //www.agrosektor.kz./recommendations-scientists. 2010, p.18.
4. Траубенберг С.Е. Ферментативный гидролиз как инструмент для повышения пищевой ценности продуктов растениеводства. // Хранение и переработка сельхозсырья. 2005. №7. С. 62-65.
5. "Чечевица, семена и посев, сорта -//http.chudo-ogorod.ru, 2010.