NOVATEUR PUBLICATIONS
INTERNATIONAL JOURNAL OF INNOVATIONS IN ENGINEERING RESEARCH AND TECHNOLOGY [IJIERT]
ISSN: 2394-3696 Website: ijiert.org
VOLUME 7, ISSUE 11, Nov.-2020

EFFECT OF SOWING TIMES ON THE LEAF SURFACE AND DRY MASS COLLECTION OF BLUE PEAS VARIETIES

IMINOV ABDUVALI ABDUMANNOBOVICH,
Doctor of agriculture sciences, Docent,
Tashkent State Agrarian University, The Republic of Uzbekistan

ERGASHOVA SAYYORA ZAFARJONOVNA,
Scientific Researcher, Research Institute of Cotton Breeding, Seed Production and Cultivation Agrotechnology, The Republic of Uzbekistan

BOYXONOVA GULNISA ABDUGAFFOROVNA
Scientific Researcher, Research Institute of Cotton Breeding, Seed Production and Cultivation Agrotechnology, The Republic of Uzbekistan

ABSTRACT
The article provides information on the impact of planting times on the formation of leaf surface and dry mass accumulation of varieties of green peas "Asia-2001" and "Spelta". If the planting of green pea varieties in the first ten days of October provided 2.7-5.5 thousand m^2 / ha more leaf area than the options planted in the second and third ten days, the total dry mass of one plant was 0.8-1.3 g was found to be as high as.

KEYWORDS: Green peas, planting time, stems, leaves, pods, grains, leaf surface, dry mass

INTRODUCTION

It is known that the organic mass accumulated by all plants in the world is billions of tons. The green pea plant is also one of the most active photosynthetic plants, as it is known from the literature that the transpiration coefficient in different varieties and tubers is 350-700 or even more. The intensity of photosynthesis depends on the number of pores on the leaf, the nature of leaf performance, the level of light and the level of soil, moisture, nutrients and other agroclimatic and technological processes that are referred to as external factors. The “work” of one plant organ can have a negative or positive effect on the “work” of another plant organ, a process known as the interaction of the green pea organs. In this connection with the activity of the root the development of the leaf is of great importance. If this connection is compatible with each other, the metabolism goes well, if not compatible, it is broken, as a result of which the vegetative growth of the plant comes to the fore. Growth-accelerating factors also have a positive effect on development. In this regard, it is important to determine the optimal planting dates for newly created varieties of green peas in the autumn [3].

RELEVANCE OF THE PROBLEM

It is known from the literature that in the process of photosynthesis in the leaves of a plant, the conversion of inorganic substances into organic matter under the influence of light, heat, water, etc. is a source of oxygen and nutrients for all living things in the world. The leaf blade is composed mainly of chloroplasts, the chloroplasts are composed of chlorophyll grains, and the chlorophyll grains give the leaf a green color. The leaves, in turn, use light, water, and nutrients from the root [1].
Among legumes, green peas are of great importance in meeting the needs of the population in food and fodder products. In addition, the agro-physical and agrochemical properties of soils in the green pea fields will improve, which will play an important role in increasing the share and improving the quality of crops grown next year [6, 7, 8].

RESEARCH CONDITIONS AND METHODS

In our study, the effect of planting times on the leaf surface formation and dry mass accumulation of blue pea varieties was studied.
Asia-2001 and Spelta varieties of green peas were used in the research.

Our research was conducted in 2018-2019 in the conditions of typical irrigated gray soils of Tashkent region. The field experiment included 6 options, each occupying an area of 120 m^2, of which 60 m^2 were taken into account. The studies were conducted in four repetitions.

Placement, calculations and observations of field experiments were carried out on the basis of methodical manuals "Methods of conducting field experiments", "Methods of field experiments", "Methods of Gossortoispytaniya selskokhozyaystvennykh kultur" [2, 4, 5].

RESEARCH RESULTS

In our study, it was found that the timing of planting affected the formation of the leaf surface of the blue pea and the accumulation of dry mass.

According to the research, in 2019, the leaf area of blue pea varieties in its flowering phase was 32.8-38.4 thousand m^2 / ha in the variety "Asia-2001", and 31.9-37.8 thousand m^2 in the variety "Spelta". / ha. The highest leaf surface area was observed in both varieties in the first ten days of October, with 38.4 thousand m^2 / ha in Asia-2001 and 37.8 thousand m^2 / ha in Spelta. . In the varieties sown in the second decade of October, the varieties of green peas were 35.3 thousand m^2 / ha in the variety "Asia-2001" and 34.6 thousand m^2 / ha in the variety "Spelta". In the variants planted in the third decade of October, it was found that the varieties were 32.8 and 31.9 thousand m^2 / ha, respectively (Table 1).

According to the data obtained in 2020, the variety "Asia-2001" was 34.2-39.7 thousand m^2 / ha, while the variety "Spelta" was 33.5-39.0 thousand m^2 / ha. This year, the highest rate of leaf surface was observed in the varieties of green peas planted in the first ten days of October, in the variety "Asia-2001" - 39.7 thousand m^2 / ha, and in the variety "Spelta" - 39.0 thousand m^2 / ha. was found to have reached In the second decade of October, the varieties of green peas were 37.5 thousand m^2 / ha in the variety "Asia-2001" and 36.3 thousand m^2 / ha in the variety "Spelta". In the variants planted in the third decade of October, it was found that the varieties were 34.2 and 33.5 thousand m^2 / ha, respectively.

Table 1. Influence of planting times on the leaf surface of blue pea varieties, thousand m^2/ha

№	Varieties	Sowing dates	2019 y	2020 y	Average
During flowering					
1	“Asia-2001”	1-10 october	38,4	39,7	39,1
2		10-20 october	35,3	37,5	36,4
3		20-30 october	32,8	34,2	33,5
4	Sowing dates	Sowing dates	37,8	39,0	38,4
5		10-20 october	34,6	36,3	35,5
6		20-30 october	31,9	33,5	32,7
during the formation of legumes					
1	“Asia-2001”	1-10 october	44,3	45,9	45,1
2		10-20 october	41,6	43,6	42,6
3		20-30 october	39,9	40,8	40,4
4	“Spelta”	1-10 october	43,7	45,3	44,5
5		10-20 october	41,0	42,5	41,8
6		20-30 october	38,2	40,0	39,1

According to the data on dry mass accumulation of green pea varieties, the dry mass accumulation of green pea varieties in 2019 at the end of its growing season in the variety "Asia-2001" was 2.8-3.1 g of dry mass of plant roots, 5.8- dry mass of stems. 6.2 g, dry mass of leaves 1.0-1.1 g, dry mass of grain 2.7-3.0 g, dry mass of pods 1.6-1.7 g, one and the total dry mass of the plant was found to be 13.9–15.1 g.

According to Spelta, the dry mass of a plant root is 2.9-3.2 g, the dry mass of a stem is 5.7-6.0 g, and the dry mass of leaves is 0.9-1.2 g, the dry mass of the grain was 2.7-2.8 g, the dry mass of the pod was 1.5-1.8 g, and the total dry mass of one plant was 13.7-15.0 g (Table 2).

Table 2. Influence of sowing times on dry mass accumulation of green pea varieties, plant/g

№ вар	Varietes	Sowing dates	Root	Stem	Leave	grain	Bark of legumes	Total on a plant
1	“Asia-2001”	1-10 october	3,1	6,2	1,1	3,0	1,7	15,1
2		10-20 october	3,0	5,9	1,0	2,8	1,6	14,3
3		20-30 october	2,8	5,8	1,0	2,7	1,6	13,9
4	Spelta	1-10 october	3,2	6,0	1,2	2,8	1,8	15,0
5		10-20 october	3,0	5,8	1,0	2,7	1,5	14,0
6		20-30 october	2,9	5,7	0,9	2,7	1,5	13,7

The highest rates of dry mass accumulation were observed in both varieties in the variants sown in the first ten days of October. In the variety "Asia-2001" the dry mass of the root was 3.1 g, the dry mass of the stem was 6.2 g, the dry mass of the leaves was 1, 1 g, the dry mass of the grain was 3.0 g, the dry mass of the pod peel was 1.7 g, and the total dry mass of one plant was 15.1 g, the dry mass of the plant root in the Spelta variety. 3.2 g, the dry mass of the stem is 6.0 g, the dry mass of the leaves is 1.2 g, the dry mass of the grain is 2.8 g, and the dry mass of the pod is 1.8 g mass was found to be 15.0 g.

According to the data obtained from the variants sown in the second decade of October, the dry mass of the root of the plant "Asia-2001" was 3.0 g, the dry mass of the stem was 5.9 g, the dry mass of the leaves was 1.0 g, the dry mass of the grain was 2, 8 g, the dry mass of the pods was 1.6 g, and the total dry mass of one plant was 14.3 g, in the Spelta variety the dry mass of the root was 3.0 g, the dry mass of the stem was 5. , 8 g, the dry mass of the leaves was 1.0 g, the dry mass of the grain was 2.7 g, the dry mass of the pod was 1.5 g, and the total dry mass of one plant was 14.0 g.

In the varieties of green peas planted in the last ten days of October, in the variety "Asia-2001" the dry mass of the root is 2.8 g, the dry mass of the stem is 5.8 g, the dry mass of the leaves is 1.0 g, the dry mass of the grain is 2, 7 g, the dry mass of the pods was 1.6 g, the total dry mass of one plant was 13.9 g, while in the Spelta variety the dry mass of one plant root was 2.9 g, the dry stem mass 5.7 g, dry mass of leaves 0.9 g, dry mass of grain 2.7 g, dry mass of pods 1.5 g, and total dry mass of one plant 13.7 g was found to have reached.

CONCLUSION

In conclusion, it can be said that the formation of the leaf surface of the green pea was influenced by planting periods, which provided 2.7-5.5 thousand m^2 / ha more in the early sown variants than in the late sown variants. Also, the planting of blue pea varieties in the first ten days of October ensured that the total dry mass of one plant was 0.8-1.3 g higher than the options planted in the second and third ten days.

REFERENCES

1) Atabaeva X.N, Khudoykulov J.B. - "Botany" Tashkent "Science and Technology" Publishing House, 2018. 407 p.
2) Methods of conducting field experiments - Tashkent, 2007. -180 p.
3) Karimov Sh.A. Thesis for the degree of Doctor of Philosophy in Agricultural Sciences on "Development of optimal norms and timing of the use of new stimulants in cotton." Tashkent. 2016. 200 p.
4) Methods of field experiment.-M .: Kolos, 1979. -14 p.
5) Methodology of State Variety Testing of Agricultural Crops. -M .: Kolos, 1964.-184 p.
6) Chirkov V.N. - "Cereals", Tashkent, Teacher, 1975, 178-180 p.
7) Eberhart S.A., Russel W.A. Stability parameters for comparing varieties // Crop Sci. –1966. – Vol.6 – №1. – P. 36-40.
8) Gottschalk, W. The evolutionary qualification of some feet mutation and recombination of *Pisum* // Egypt. J. Genet. and Cytol. – 1973. – v.2, №2 – P. 219.