



GROWTH PERIOD OF PEAS VARIETIES AND LINES GROWN IN THE SOUTHERN REGIONS

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Article history:	Abstract:
<p>Received: 4th May 2023</p> <p>Accepted: 6th June 2023</p> <p>Published: 6th July 2023</p>	<p>Today, as a result of the rapid growth of the population in the world, the demand for food and products rich in protein is increasing. Currently, 70% of the protein consumed by humans is derived from plant products. In recent years, as a result of sudden changes in the climate, during the development phase of pea varieties and ridges, which are planted in dry areas, there is a sharp rise in temperature and a drop in cold, which affects the plant's disease and pests, and the effect on the grain quality indicator. In order to avoid these situations, it is an important task for breeders of the world to create pea varieties and initial sources resistant to these climatic conditions</p>

Keywords: Southern region, pea, variety, ridge, return, heat, drought, growth period, development phases

RESEARCH METHODS: Phenological observations, calculations and analyzes during the experiment were carried out according to the methods of the All-Union Institute of Plant Science (VIR 1984), and biometric analyzes were carried out according to the methods of the Center for Testing Agricultural Crops (1985, 1989). Mathematical-statistical analysis of the results of the experiment was carried out based on the method of B.A. Dospekhov (1985).

RESEARCH RESULTS: 35 varieties and samples of peas were planted in 3 rotations in the central experimental area of the Southern Agricultural Research Institute in Karshi district. As a sample variety, the "Obad" variety, which is planted in the fields of our republic, was taken.

The purpose of the research is to create varieties and samples of peas that are heat and drought resistant, productive and of high grain quality.

According to the results of the conducted research, when the transition of pea varieties and samples to the germination phase was analyzed, it was found that according to the returns, it corresponded to March 12-14 on average. In this case, the sample Abad variety germinated on March 13, while the sample variety KR20-CIFWN-45, KR20-CIABN-09, KR20-CIABN-10, KR20-CIABN-21, KR20-CIABN-21, KR20-CIABN germinated earlier than the sample variety. -33 samples were found to have germinated on March 12.

According to the results of the research, it was found that the average number of sprouted plants of the studied pea varieties and samples was from 40 to 49.

When analyzing the number of sprouted plants of the model "Obad" variety, it was found that the number of sprouted plants from the model variety was 44 to 49 in the samples with a higher number of plants (Fig. 1).

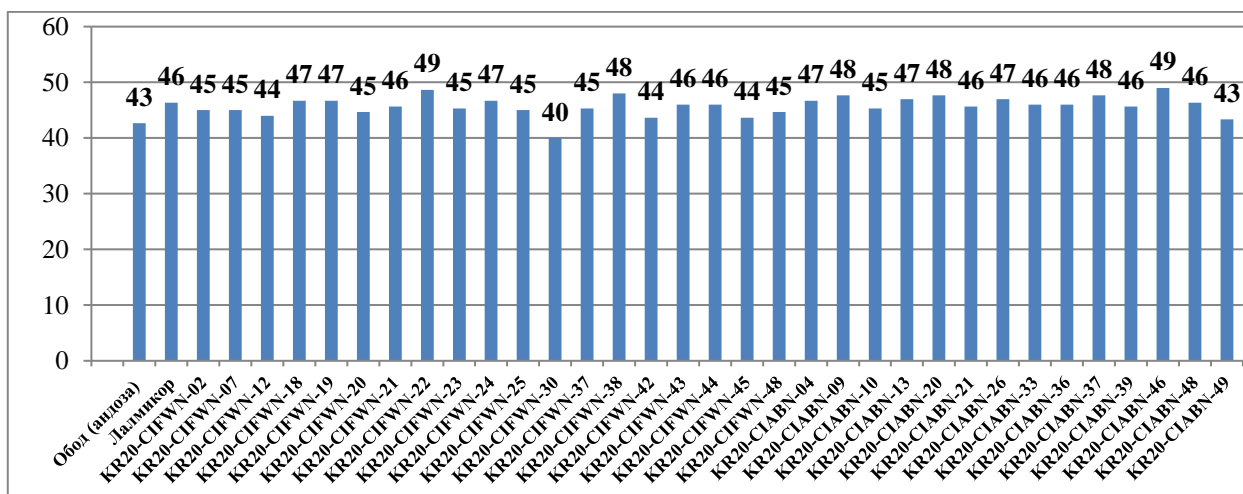


Figure 1: The number of plants that have sprouted in new shoots and rows, one (Karshi-2023).

When analyzing the transition of chickpea varieties and rows to the flowering phase under the conditions of the Karshi district, it was observed that the average of the returns fell on April 9-13.

As a result of the analysis, the number of rows with a short germination period was 7, and the germination period was 26-27 days. determined (Fig. 2).

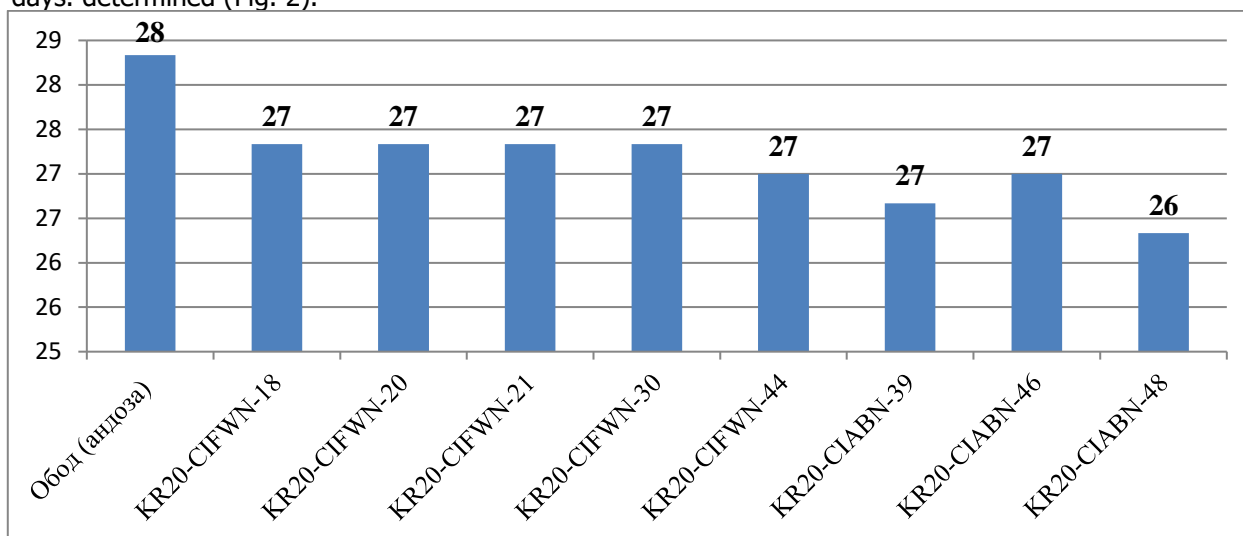


Figure 2: Ridges with a short germination-reigning period from the model variety (Karshi-2023y.)

According to the results of the conducted research, when analyzing the transition of varieties and varieties to the budding phase, according to the returns, it was found that the germination-budding period was 38-42 days, on average, according to returns, it was 38-42 days (Table 1).

The model variety "Obad" entered the budding phase on April 21, and the germination-budding period was 40 days, while the number of ridges with a short germination-budding period of the model variety was 8 and entered the budding phase 1-2 days earlier than the model variety. was determined.

Table 1
Germination-budding period of pea varieties and ridges, day (Karshi-2023y.).

№	Номи	Униб чиқиш, сана	Униб чиққан ўсимликлар сони, дона	Шохланиш, сана	Униб чиқиш-шоҳланиш даври, кун	Фунчалаш, сана	Униб чиқиш-фунчалаш даври, кун
1	Обод (андоза)	13.мар	43	10.апр	28	21.апр	40
2	Лалмикор	13.мар	46	11.апр	29	22.апр	41
3	KR20-CIFWN-02	14.мар	45	13.апр	30	24.апр	41
4	KR20-CIFWN-07	13.мар	45	12.апр	29	23.апр	41
5	KR20-CIFWN-12	13.мар	44	11.апр	29	23.апр	41
6	KR20-CIFWN-18	14.мар	47	10.апр	27	22.апр	39
7	KR20-CIFWN-19	13.мар	47	12.апр	29	23.апр	40
8	KR20-CIFWN-20	13.мар	45	10.апр	27	22.апр	40
9	KR20-CIFWN-21	13.мар	46	10.апр	27	23.апр	41
10	KR20-CIFWN-22	13.мар	49	09.апр	28	23.апр	42
11	KR20-CIFWN-23	13.мар	45	12.апр	29	22.апр	40
12	KR20-CIFWN-24	14.мар	47	11.апр	28	22.апр	39
13	KR20-CIFWN-25	13.мар	45	12.апр	30	23.апр	41
14	KR20-CIFWN-30	13.мар	40	09.апр	27	22.апр	40
15	KR20-CIFWN-37	13.мар	45	10.апр	28	21.апр	39
16	KR20-CIFWN-38	14.мар	48	12.апр	29	21.апр	38
17	KR20-CIFWN-42	14.мар	44	12.апр	29	23.апр	40
18	KR20-CIFWN-43	13.мар	46	11.апр	28	22.апр	40
19	KR20-CIFWN-44	13.мар	46	09.апр	27	22.апр	40
20	KR20-CIFWN-45	12.мар	44	09.апр	29	22.апр	41
21	KR20-CIFWN-48	13.мар	45	10.апр	28	23.апр	41
22	KR20-CIABN-04	14.мар	47	12.апр	29	22.апр	40
23	KR20-CIABN-09	12.мар	48	09.апр	28	22.апр	41

24	KR20-CIABN-10	12.мар	45	11.анп	30	23.анп	41
25	KR20-CIABN-13	14.мар	47	12.анп	30	22.анп	40
26	KR20-CIABN-20	14.мар	48	13.анп	30	24.анп	40
27	KR20-CIABN-21	12.мар	46	10.анп	29	21.анп	40
28	KR20-CIABN-26	14.мар	47	13.анп	30	22.анп	39
29	KR20-CIABN-33	12.мар	46	10.анп	30	23.анп	42
30	KR20-CIABN-36	14.мар	46	11.анп	28	22.анп	39
31	KR20-CIABN-37	13.мар	48	10.анп	29	22.анп	41
32	KR20-CIABN-39	13.мар	46	09.анп	27	22.анп	39
33	KR20-CIABN-46	14.мар	49	10.анп	27	22.анп	39
34	KR20-CIABN-48	14.мар	46	09.анп	26	22.анп	39
35	KR20-CIABN-49	13.мар	43	11.анп	29	22.анп	40
Ўртача кўрсаткич		13.мар	46	11.анп	29	22.анп	40
Энг баланд кўрсаткич		14.мар	49	13.анп	30	24.анп	42
Энг паст кўрсаткич		12.мар	40	09.анп	26	21.анп	38

When analyzing the transition of chickpeas and rows to the flowering phase, it was found that the average period of April 25-29 for the cultivars was 43-47 days (Fig. 3).

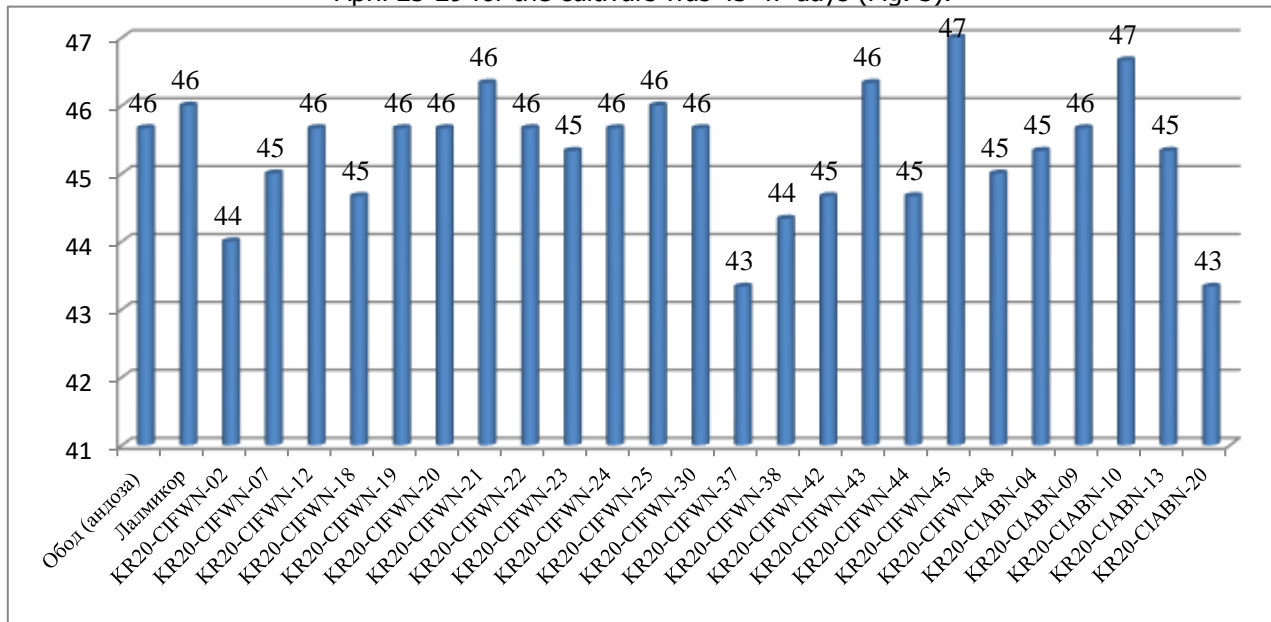


Figure 3: Germination-flowering period of pea varieties and rows, day (Karshi-2023).

It was observed that the Andoza Abad variety entered the flowering phase on April 27, and the germination-flowering period was 46 days.

The germination-flowering period of KR20-CIFWN-18, KR20-CIFWN-23, KR20-CIFWN-07, KR20-CIFWN-37, KR20-CIFWN-38, KR20-CIFWN-42, which went from the model variety to the early flowering phase, is 43 days. It was found that it was up to 45 days.

The germination-flowering period is an important process in leguminous crops, and the high temperature at this time can cause leguminous crops to lose their flower. In addition, it has been proven in researches that in leguminous grain crops, early ripening is also shown in the ridges that entered the flowering phase early.

According to phenological observations, it was found that the pod formation of pea varieties and ridges corresponded to June 3-6 on average according to returns (Table 2).

Table 2
Phenological monitoring of pea varieties and ridges (Karshi-2023y)
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№	Номи	Униб чикқан	Шохланиш, сана	Фунчалаш, сана	Гуллаш, сана	Дуккак ҳосил	Униб чиқиш- дуккак
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		Униб чиқиш, сана	Ўсимликлар сони, дона				бўлиш, сана	ҳосил бўлиш даври, кун
1	Обод (андоза)	13.мар	43	10.апр	21.апр	27.апр	05.май	53
2	Лалмикор	13.мар	46	11.апр	22.апр	28.апр	04.май	53
3	KR20-CIFWN-02	14.мар	45	13.апр	24.апр	27.апр	05.май	52
4	KR20-CIFWN-07	13.мар	45	12.апр	23.апр	27.апр	04.май	52
5	KR20-CIFWN-12	13.мар	44	11.апр	23.апр	28.апр	05.май	53
6	KR20-CIFWN-18	14.мар	47	10.апр	22.апр	27.апр	04.май	52
7	KR20-CIFWN-19	13.мар	47	12.апр	23.апр	28.апр	04.май	52
8	KR20-CIFWN-20	13.мар	45	10.апр	22.апр	28.апр	05.май	52
9	KR20-CIFWN-21	13.мар	46	10.апр	23.апр	29.апр	04.май	51
10	KR20-CIFWN-22	13.мар	49	09.апр	23.апр	27.апр	04.май	52
11	KR20-CIFWN-23	13.мар	45	12.апр	22.апр	28.апр	05.май	53
12	KR20-CIFWN-24	14.мар	47	11.апр	22.апр	29.апр	06.май	53
13	KR20-CIFWN-25	13.мар	45	12.апр	23.апр	28.апр	04.май	51
14	KR20-CIFWN-30	13.мар	40	09.апр	22.апр	27.апр	04.май	53
15	KR20-CIFWN-37	13.мар	45	10.апр	21.апр	25.апр	05.май	53
16	KR20-CIFWN-38	14.мар	48	12.апр	21.апр	27.апр	05.май	52
17	KR20-CIFWN-42	14.мар	44	12.апр	23.апр	28.апр	04.май	51
18	KR20-CIFWN-43	13.мар	46	11.апр	22.апр	29.апр	05.май	52
19	KR20-CIFWN-44	13.мар	46	09.апр	22.апр	27.апр	05.май	53
20	KR20-CIFWN-45	12.мар	44	09.апр	22.апр	28.апр	04.май	53
21	KR20-CIFWN-48	13.мар	45	10.апр	23.апр	27.апр	04.май	52
22	KR20-CIABN-04	14.мар	47	12.апр	22.апр	28.апр	05.май	52
23	KR20-CIABN-09	12.мар	48	09.апр	22.апр	27.апр	05.май	54
24	KR20-CIABN-10	12.мар	45	11.апр	23.апр	28.апр	04.май	53
25	KR20-CIABN-13	14.мар	47	12.апр	22.апр	28.апр	03.май	50
26	KR20-CIABN-20	14.мар	48	13.апр	24.апр	27.апр	03.май	50
27	KR20-CIABN-21	12.мар	46	10.апр	21.апр	27.апр	04.май	53
28	KR20-CIABN-26	14.мар	47	13.апр	22.апр	28.апр	05.май	52
29	KR20-CIABN-33	12.мар	46	10.апр	23.апр	28.апр	05.май	54
30	KR20-CIABN-36	14.мар	46	11.апр	22.апр	27.апр	04.май	51
31	KR20-CIABN-37	13.мар	48	10.апр	22.апр	28.апр	04.май	52
32	KR20-CIABN-39	13.мар	46	09.апр	22.апр	28.апр	04.май	52
33	KR20-CIABN-46	14.мар	49	10.апр	22.апр	27.апр	03.май	50
34	KR20-CIABN-48	14.мар	46	09.апр	22.апр	28.апр	05.май	52
35	KR20-CIABN-49	13.мар	43	11.апр	22.апр	27.апр	04.май	52
	Ўртача кўрсаткич	13.мар	46	11.апр	22.апр	27.апр	04.май	52
	Энг баланд кўрсаткич	14.мар	49	13.апр	24.апр	29.апр	06.май	54
	Энг паст кўрсаткич	12.мар	40	09.апр	21.апр	25.апр	03.май	50

It was found that the pods of the Anodaza Abad variety were harvested on May 5, and it took 53 days for the pods to germinate. It was found that the number of rows with a short period of pod production was 22.

When analyzing the transition of chickpeas to the ripening phase, it was found that on average, according to the returns, it happened on June 3-8 (Fig. 4).

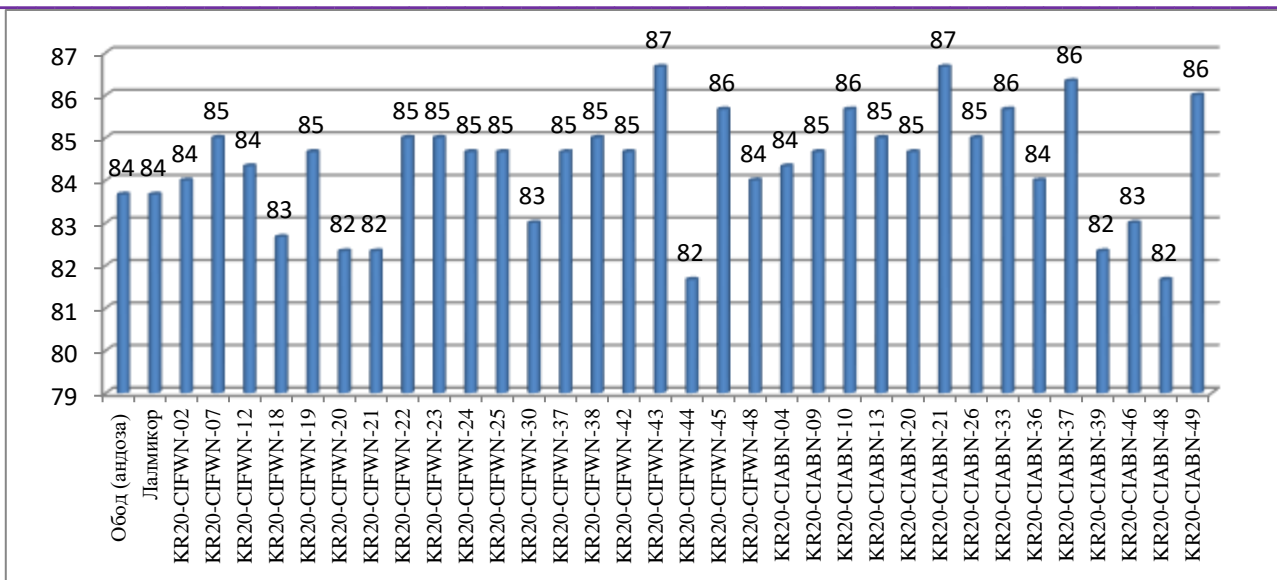


Figure 4: Growing period of pea varieties and ridges, day (Against 2023).

Andoza Abad variety entered the ripening phase on June 4, and the growing period was 84 days. 8 ridges with a short growing season were selected from the sample variety.

Conclusion: According to the research results of the selection of heat and drought-resistant, high-yielding and grain-quality varieties and samples of peas, KR20-CIFWN-45, KR20-CIABN-09, KR20-CIABN-10, KR20-CIABN-21, KR20-Samples CIABN-21, KR20-CIABN-33 were selected because they showed valuable character traits and were set aside for next year's use.

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