



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

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Article history:	Abstract:
<p><b>Received:</b> 26<sup>th</sup> May2024</p> <p><b>Accepted:</b> 24<sup>th</sup> June 2024</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:** During the experimental setting and experiment, phenological observations, calculations and analyzes were carried out according to the method of the All-Union Plant Science Institute 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 field of Southern Agricultural Research Institute in Karshi district. As a sample variety, the "Obad" variety, which is being 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, on average, it corresponded to March 12-14. In this case, the sample variety Abad germinated on March 13, and the sample variety KR20-CIFWN-45, KR20-CIABN-09, KR20-CIABN-10, KR20-CIABN-21, KR20-CIABN-21, KR20-CIABN, which germinated earlier than the sample variety -33 samples were found to have germinated on March 12.

According to the results of the research, when the number of sprouted plants of the studied pea varieties and samples was determined, it was found that the average 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).

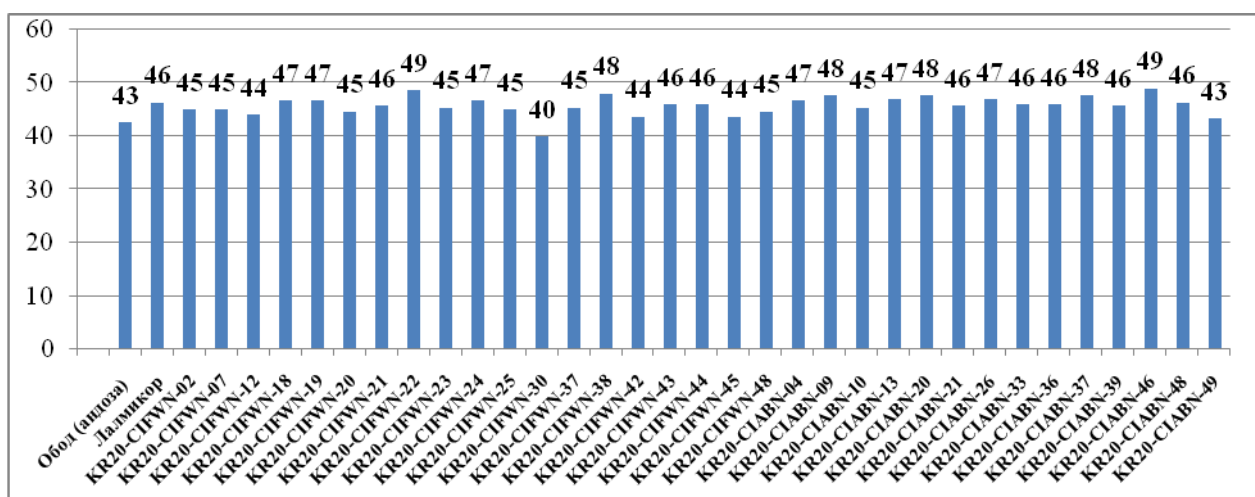


Figure 1: Number of sprouted plants in pea varieties and ridges, pieces (Against 2024).

When analyzing the transition to the flowering phase of the studied pea varieties and ridges in the conditions of Karshi district, it was observed that according to returns, on average, they corresponded to April 9-13.

As a result of the analysis, the model Abad variety entered the flowering phase on April 10 and the germination-reigning period was 28 days, while the number of ridges with a shorter germination-reigning period of the model variety was 7, and the germination-reigning period was 26-27 days. identified (Figure 2).

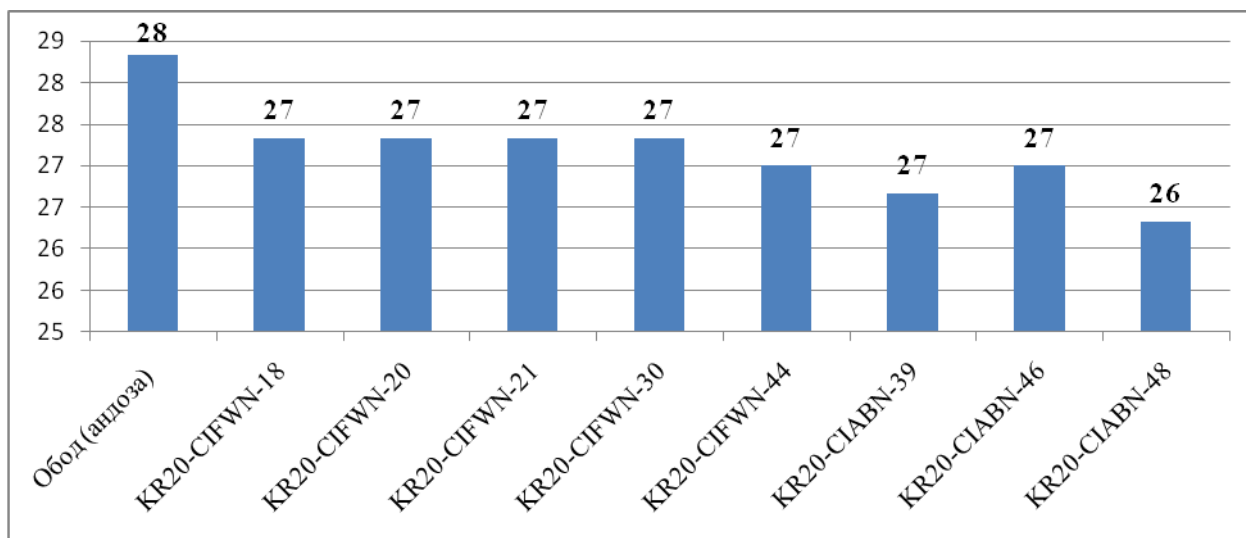


Figure 2: Ridges with a short germination-reigning period from the model variety (Vs. 2024).

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

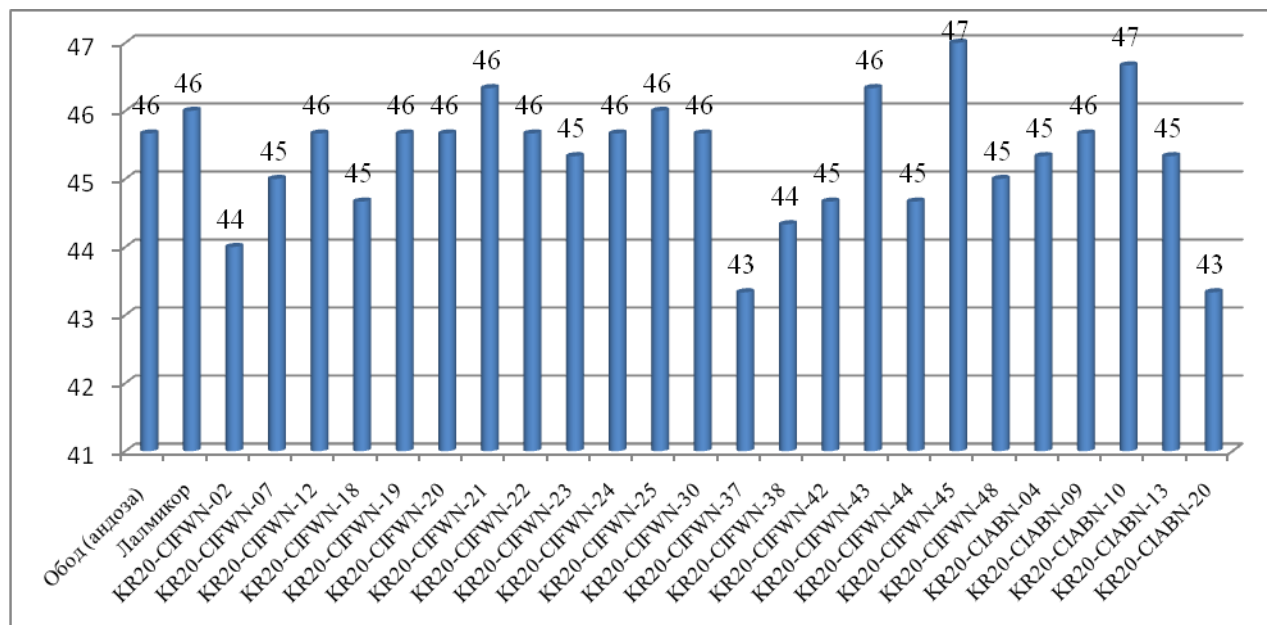
The model variety "Obad" entered the budding phase on April 21, and the germination-budding period was 40 days, while the number of ridges with a short germination-budding period of the model variety was 8 and entered the budding phase 1-2 days earlier than the model variety. was determined.

Table 1  
Germination-budding period of pea varieties and ridges, day (Karshi-2024 y.).

No	Name	Germination, date	Branching, date	Budding, date	Germination-budding period, day
1	Обод (ст)	13.мар	10.апр	21.апр	40
2	Лалмикор	13.мар	11.апр	22.апр	41
3	KR20-CIFWN-02	14.мар	13.апр	24.апр	41
4	KR20-CIFWN-07	13.мар	12.апр	23.апр	41
5	KR20-CIFWN-12	13.мар	11.апр	23.апр	41
6	KR20-CIFWN-18	14.мар	10.апр	22.апр	39
7	KR20-CIFWN-19	13.мар	12.апр	23.апр	40
8	KR20-CIFWN-20	13.мар	10.апр	22.апр	40
9	KR20-CIFWN-21	13.мар	10.апр	23.апр	41
10	KR20-CIFWN-22	13.мар	09.апр	23.апр	42
11	KR20-CIFWN-23	13.мар	12.апр	22.апр	40
12	KR20-CIFWN-24	14.мар	11.апр	22.апр	39
13	KR20-CIFWN-25	13.мар	12.апр	23.апр	41
14	KR20-CIFWN-30	13.мар	09.апр	22.апр	40
15	KR20-CIFWN-37	13.мар	10.апр	21.апр	39
16	KR20-CIFWN-38	14.мар	12.апр	21.апр	38
17	KR20-CIFWN-42	14.мар	12.апр	23.апр	40
18	KR20-CIFWN-43	13.мар	11.апр	22.апр	40
19	KR20-CIFWN-44	13.мар	09.апр	22.апр	40
20	KR20-CIFWN-45	12.мар	09.апр	22.апр	41
21	KR20-CIFWN-48	13.мар	10.апр	23.апр	41
22	KR20-CIABN-04	14.мар	12.апр	22.апр	40
23	KR20-CIABN-09	12.мар	09.апр	22.апр	41

24	KR20-CIABN-10	12.map	11.anp	23.anp	41
25	KR20-CIABN-13	14.map	12.anp	22.anp	40
26	KR20-CIABN-20	14.map	13.anp	24.anp	40
27	KR20-CIABN-21	12.map	10.anp	21.anp	40
28	KR20-CIABN-26	14.map	13.anp	22.anp	39
29	KR20-CIABN-33	12.map	10.anp	23.anp	42
30	KR20-CIABN-36	14.map	11.anp	22.anp	39
31	KR20-CIABN-37	13.map	10.anp	22.anp	41
32	KR20-CIABN-39	13.map	09.anp	22.anp	39
33	KR20-CIABN-46	14.map	10.anp	22.anp	39
34	KR20-CIABN-48	14.map	09.anp	22.anp	39
35	KR20-CIABN-49	13.map	11.anp	22.anp	40
<b>Average indicator</b>		<b>13.map</b>	<b>11.anp</b>	<b>22.anp</b>	<b>40</b>
<b>The highest rate</b>		<b>14.map</b>	<b>13.anp</b>	<b>24.anp</b>	<b>42</b>
<b>The lowest rate</b>		<b>12.map</b>	<b>09.anp</b>	<b>21.anp</b>	<b>38</b>

When analyzing the transition of pea varieties and rows to the flowering phase, it was found that the germination-flowering period was 43-47 days after April 25-29 on average according to the returns (Fig. 3).



**Figure 3: Germination-flowering period of pea varieties and ridges, day (Karshi-2024).**

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 in the lines KR20-CIFWN-18, KR20-CIFWN-23, KR20-CIFWN-07, KR20-CIFWN-37, KR20-CIFWN-38, KR20-CIFWN-42, which passed 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 considered an important process in leguminous crops, and high air temperature at this time can cause leguminous crops to lose their flower. In addition, it has been proven in researches that the ridges that entered the flowering phase early in leguminous crops also show the characteristic of early ripening.

When analyzing the formation of pods of pea varieties and ridges, it was determined by the results of phenological observations that according to returns, on average, they corresponded to June 3-6 (Table 2).

It was found that pod formation of the Andoza Abad variety coincided with May 5, and germination-pod formation was 53 days. It was found that the number of ridges with a short period of pod formation from the model variety was 22.

When analyzing the transition of pea varieties and rows to the ripening phase, it was found that according to returns, on average, it corresponded to June 3-8 (Fig. 4).

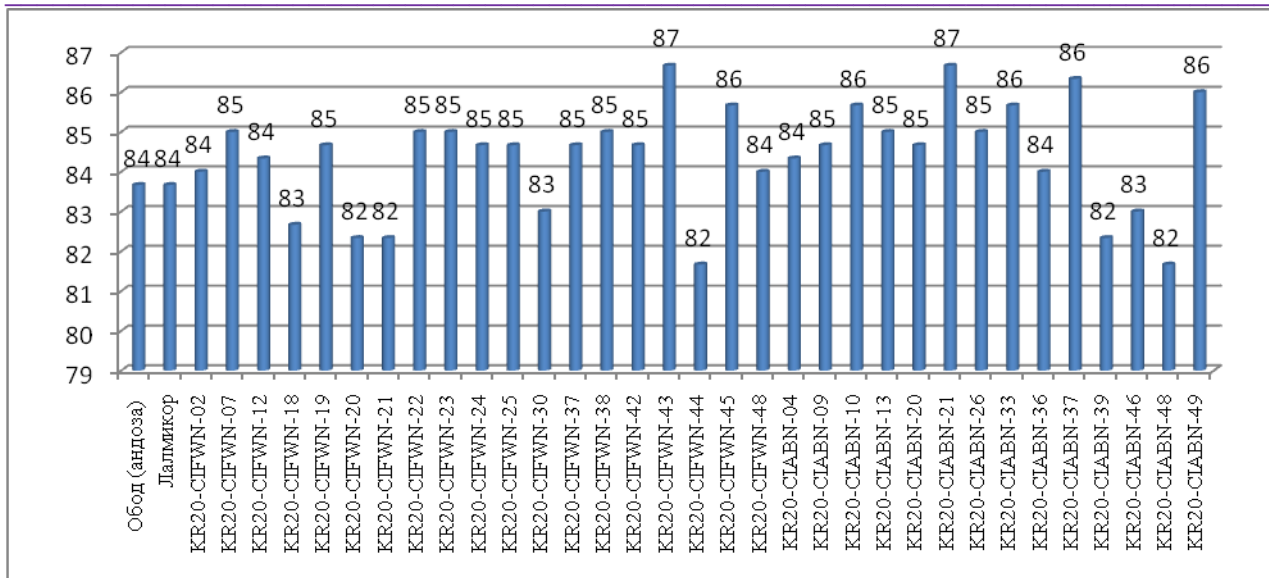


Figure 4: Growing period of pea varieties and ridges, day (vs. 2024.).

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.

**SUMMARY:** According to the results of the research conducted in the nursery for the selection of heat and drought resistant, productive and grain quality varieties and samples of peas, KR20-CIFWN-45, KR20-CIABN-09, KR20-CIABN-10, KR20-CIABN-21, KR20-CIABN- Samples 21, KR20-CIABN-33 were selected for exhibiting valuable character traits and set aside for next year's use.

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