European Journal of Agricultural and Rural Education (EJARE)
Available Online at: https://www.scholarzest.com
Vol. 4 No. 8, August 2023
ISSN: 2660-5643

CONTINUITY OF THE GROWTH PERIOD AND GRAIN PRODUCTION OF PEA VARIETIES AND RANGES

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Article history:

Received: 24h June 2023
Accepted: 22th July 2023
Published: 24th August 2023

Abstract:

In this article, the formation and development stages of leguminous grain crops, especially peas, in the phases of the growth period, are analyzed. In addition, information on biometric indicators of pea varieties and lines and the most important grain yield is presented.

Keywords: Variety, ridge, return, growth period, germination, branching, budding, podding, grain yield, pea

Despite the rapid development of science and technology in the world, the food problem remains one of the most important global problems. Due to the sharp change in the ecological situation, the area of agricultural production is shrinking and the population is increasing. Today there are more than 7 billion people on earth, of which 3 billion live in hunger.

According to the conducted studies, the optimal air temperature during the growth period of the pea crop is positive up to +10+300C, and the decrease or increase of this air temperature during flowering and grain formation of the plant leads to a decrease in productivity [2].

When analyzing the growth period and yield indicators of leguminous grain crops planted in irrigated fields, especially the varieties and ridges grown in the competition nursery of Peas, the germination and branching period is from 12 to 23 days on average according to returns, 15 days for the "Obad" variety, and 15 days for the "Lalmikor" variety. and it was found that it was 17 days. It was found that the number of ridges with a germination-branching period shorter than that of the model varieties was 7 (Fig. 1).

Figure 1: Germination-branching period in pea varieties and rows, day (Against 2023).

When analyzing the germination-budding period of pea varieties and ridges, it was found that the germination-budding period was 40 days in the "Obad" variety, and 43 days in the "Lalmikor" variety.

KR-20-LCAYT-RF-13, KR-20-LCPYT-RF-5, KR20-CICTN-17, KR20-CICTN-37, which have a shorter germination-buddling period than the model varieties, were 36 to 38 days compared to the model varieties. It can be observed that it has passed into the budding phase 4-5 days earlier (Fig. 2).

The second half of the development period of the pea plant grown in Lalmikor fields is spent in conditions of drought and increasing heat. As a result of the increase in temperature, protein breakdown occurs in plant tissues, which occurs together with the accumulation of ammonia in the plant structure, as a result of which the plant dries up. High temperature slows down the dry matter accumulation of the plant and drastically reduces grain quality and yield.

Therefore, high temperature affects the development organs of the plant, it can cause incomplete fertilization of the plant during flowering [3]

Fig. 2: Germination-budding period in pea varieties and ridges, day (Karshi-2023).

When analyzing the podding period of pea varieties and rows grown in the competition nursery, the average pod yield according to returns was from 71 to 77 days, corresponding to May 16-21. determined as a result of analysis.

One of the important indicators in the development of the plant: the formation of pods of the plant slows down the development of peas under the influence of heat. An average temperature of +20+280C is needed for the development of the generative organ of peas [1].

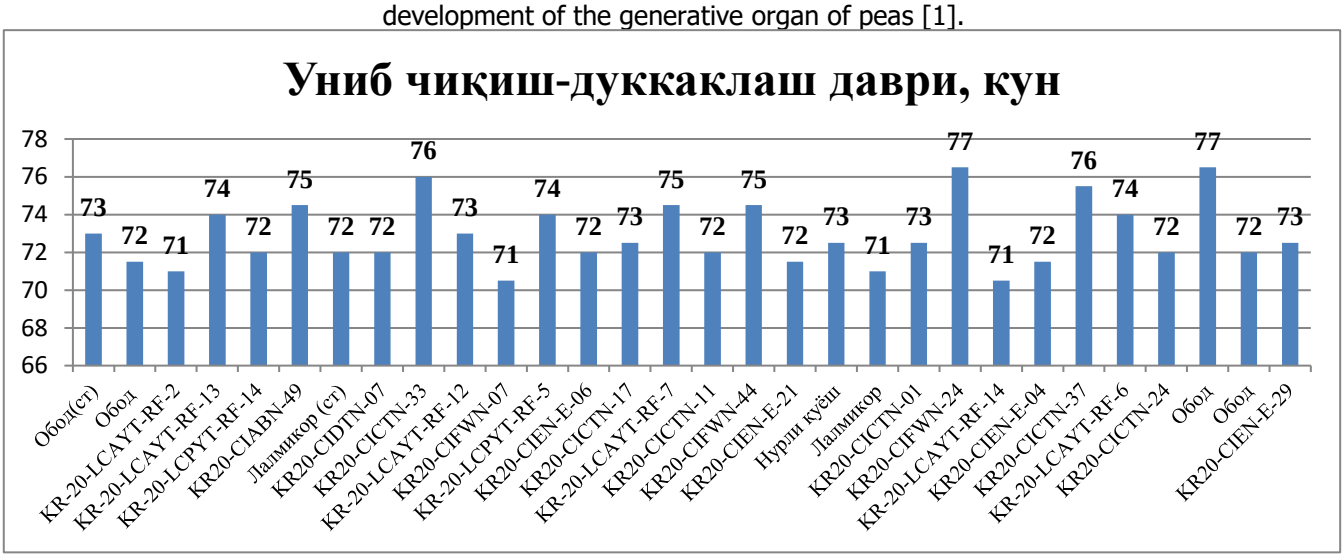

Figure 3: Germination-seeding period in pea varieties and rows, day (Karshi-2023).

It was found that the period of germination and podding of the model "Obad" variety was 73 days, and 72 days for the "Lalmikor" variety. KR-20-LCAYT-RF-2, KR20-CIFWN-07, KR-20-LCAYT-RF-14, which has a short period of germination and podding of the model varieties, made 71 days, and podding took place 1-2 days earlier than the model varieties. phase (Fig. 3).

As a result of the analysis, it was found that there were 10 ridges with a longer period of sprouting and podding than the sample varieties.

In Turkey, peas are considered to be a type of crop rich in protein, and the grain contains an average of 22-26% protein. Cultivated and wild species of this crop are a source of food for humans and livestock. In the root system of the plant, it lives in symbiosis with free-living bacteria in the air and enriches the soil with nutrients [4].

When analyzing the growth period, which is one of the most important indicators of pea varieties and lines, the transition of plants to the full ripening phase is on average June 1-7. It was found that the transition to the ripening phase in the model varieties "Obad" and "Lalmikor" was observed on June 5, and the growth period was 90, 91 days,

respectively (Fig. 4).

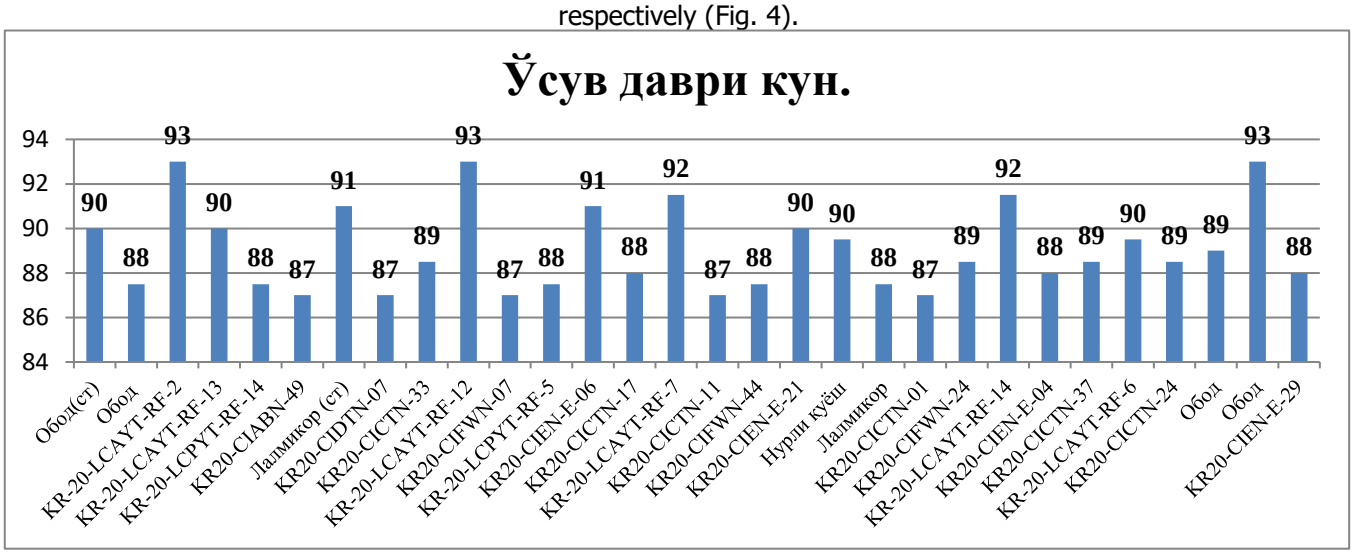

Figure 4: Growing period of pea varieties and ridges, day (Against 2023).

From the model varieties, the short growing season KR-20-LCPYT-RF-14, KR20-CIABN-49, KR20-CIDTN-07, KR20-CIFWN-07, KR20-CICTN-01, KR20-CIEN-E- As a result of the analysis, it was determined that the growth period in 04 ridges was from 87 to 88 days.

The number of grains in one pod of pea varieties and rows in the competition nursery was analyzed and divided into one-grain, 2-grain and 3-grain pods.

It was found that the total number of pods in one plant in the model "Obad" variety is 75, 62 single-grain pods, 13 2-grain pods, and 3-grain pods were not found.

Table 1

The number of pods in one bush of pea varieties and varieties, pieces (Against 2023).

№	Nomi	Bir tup o‘simlikda dukkaklar soni, dona			
		1 donli	2 donli	3 donli	Jami
1	Обод(андоза)	62	13		75
2	Обод	81	12		73
3	KR-20-LCAYT-RF-2	48	15		62
4	KR-20-LCAYT-RF-13	73	9		82
5	KR-20-LCPYT-RF-14	66	13	1	79
6	KR20-CIABN-49	73	12		85
7	Лалмикор (андоза)	70	14	1	80
8	KR20-CIDTN-07	74	13		87
9	KR20-CICTN-33	63	14		77
10	KR-20-LCAYT-RF-12	74	10		84
11	KR20-CIFWN-07	64	13		77
12	KR-20-LCPYT-RF-5	54	12		65
13	KR20-CIEN-E-06	67	13		79
14	KR20-CICTN-17	60	12		72
15	KR-20-LCAYT-RF-7	63	13	1	77
16	KR20-CICTN-11	67	11		78
17	KR20-CIFWN-44	71	14		85
18	KR20-CIEN-E-21	60	14		74
19	Нурли қуёш	59	13		71
20	Лалмикор	73	9		82
21	KR20-CICTN-01	71	13	1	85
22	KR20-CIFWN-24	54	15		68
23	KR-20-LCAYT-RF-14	63	14		77
24	KR20-CIEN-E-04	74	10		84
25	KR20-CICTN-37	70	14		83
26	KR-20-LCAYT-RF-6	55	15		70
27	KR20-CICTN-24	71	12		83
28	Обод	68	11		79
29	Обод	75	13	1	88
30	KR20-CIEN-E-29	67	14		81
Eng baland ko‘rsatkich		81	15	1	93
O‘rtacha ko‘rsatkich		66	12	1	79

Eng past ko'rsatkich	48	9	1	62

It was found that the number of pods in one bush of "Lalmikor" variety was 85, the number of one-grain pods was 70, the number of 2-grain pods was 14, and the number of 3-grain pods was 1 (Table 1).

KR20-CIDTN-07, KR-20-LCAYT-RF-13, KR20-CIABN-49, KR20-CIFWN-44, KR20-CICTN-37, KR20 with the highest number of pods per plant from the model varieties. -CIEN-E-29 ridges showed that the number of pods per bush was 81 to 88.

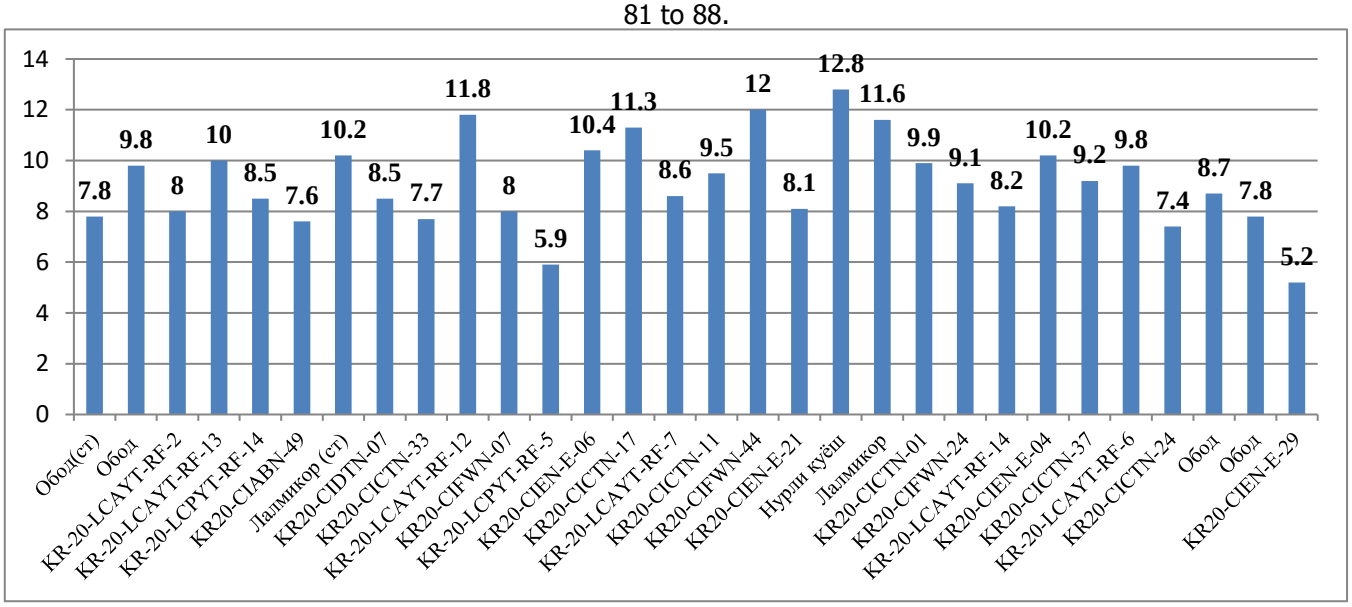

Figure 5: Grain yield of pea varieties and ridges, s/ha (Karshi-2023).

When determining the grain yield of pea varieties and ridges, it was found that the average was from 5.2 s/ha to 12.8 s/ha. In this case, the grain yield of the model "Obad" variety is 7.8 s/ha, and the "Lalmikor" variety is 10.2 s/ha, and the grain yield is higher than the model varieties KR-20-LCAYT-RF-12 11, 8 s/ha, KR20-CIEN-E-06 10.4 s/ha, KR20-CICTN-17 11.3 s/ha, KR20-CIFWN-44 12 s/ha, Radiant Sun 12.8 s/ha was found to be (Fig. 5).

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