



СОЯНИНГ ҲОСИЛИНИ КОМБАЙНДА ЙИҒИШТИРИШГА МОС НАВЛАРИНИ АЖРАТИШ

M.K.Lukov

candidate of agricultural sciences

A.P.Shamanov

independent researcher

J.B.Kuziboyev

students

L.A.Izzatullayev

students

<https://doi.org/10.5281/zenodo.7157227>

Аннотация

Ушбу мақолада бир хил тупроқ шароитда экиб ўстирилган соянинг 7 нави ва 4 намуналари ўсимликларининг туп шакли, пояси узун лиги, биринчи ҳосил шохининг юр юзасидан баландлиги, пишиш даврида донларнинг сочилувчанлиги, ҳосилдорлиги каби қимматли хўжалик белги –хусусиятларини ўрганиш асосида, нав намуналарининг ҳосилини комбайнда йиғиштиришга мослиги ҳақида маълумотлар берилган.

Annotation

In this article, based on the study of valuable economic traits, such as the shape of the stem, the length of the stem, the height of the first harvesting branch above ground level, the dispersion of grains at maturity, the productivity of 7 varieties and 4 samples of soybean plants grown in the same soil conditions, provides information on the suitability variety samples for harvesting by a combine harvester.

Калит сўзлар

Соя, комбайн, соя навлари, ҳосил, дуккакли-дон, дуккак, мой, оқсил, витамин, уруғ, дуккаклар чатнаб кетади, ён шохлар.

Keywords

Soybean, harvester, soybean varieties, crop, legumes, legumes, oil, protein, vitamin, seeds, chat pods, side branches.

Introduction: Soy is one of the oldest crops in the world. The reason why soybean is a valuable leguminous crop is that its seeds contain a large amount of 35-52% protein, 12-27% oil, various vitamins A, B, C, D, E and a number of enzymes. Soy protein consists of easily soluble fractions (up to 94%), and contains a large amount of non-exchangeable amino acids, lysine amino acids are 9 times more than in wheat flour, 2-3 times more than in wheat flour, 2-3 times more, than wheat flour. more than in cow's milk, and 2 times more than in beef.

Three types of protein products are produced from soybeans: concentrates with a protein content of 70%, isolates (up to 90% protein) and products with a consistency similar to meat products. These products are much cheaper than real ones and are not inferior to them in terms of nutritional value and digestibility. Soybean oil has a pleasant taste and good culinary properties; it contains physiologically active full-saturated fatty acids, which are indispensable for the body.

Soya dunyoning 70 ga yaqin davlatida yetishtirilib, keyingi 25-30 yilda uning ekin maydoni 30 barobar, urug'chilik 6 barobar oshdi. 2022-yilda dunyoda ekin maydoni 110

million

gektarni tashkil etadi, bu O'zbekiston Respublikasida istiqbolli ekin bo'lgan soyadan oshib, uning ekin maydoni yil sayin ortib bormoqda.

Soybean is grown in about 70 countries around the world, and in the next 25-30 years, its sown area increased 30 times, and seed production increased 6 times. In 2022, the sown area in the world will

be 110 million hectares, which exceeds soybean, which is a promising crop in the Republic of Uzbekistan, and its sown area is increasing every year.

Доступность: Из-за своей биологии выращивание соевых бобов в условиях жаркого климата и низкой влажности несколько затруднено. 17-25 °C - благоприятная температура в период цветения-семенообразования сои. В Сурхандарьинской области температура летом в отдельные дни превышает 47 °C. Кроме того, влажность воздуха очень низкая. Во время созревания зерна сортов сои происходит рассыпание стручков чатнаба и семян. Этот индикатор в основном появляется в жарких условиях.

In addition, the branches of the first harvest on the main stem are at a height of 17 cm above ground level. if it is placed no higher than when harvesting, the combine knives will not be able to harvest the first harvesting branch, and the first harvesting branch will remain at the bottom. Because of this, a certain part of the crop will die. Combine harvesting also depends on the shape of the variety bush. The shape of the bush of the plant in some varieties is hollow, it grows upright.

The shape of the bush in some varieties is flat, and the fact that the lateral branches are located close to the surface of the earth, sometimes recumbent, makes it difficult to harvest with a combine.

In view of the foregoing, the first harvest of branches with a straight-growing, non-lodging stem is 17 cm. An urgent issue is the selection and selection of soybean varieties located at a height of more than 100 m², which do not fall off when the crop ripens and do not crumble grains, with high productivity rates.

Research objective: based on the study of valuable economic traits of different varieties and samples of soybeans grown in the same soil conditions, it is necessary to identify varieties suitable for combine harvesting and continue their selection and seed production.

Scientific news: the suitability of new varieties and samples of soybeans for harvesting with a combine harvester has not been studied in the Surkhandarya region, where in the south of Uzbekistan there is a very hot climate and very low air humidity.

Materials and methods: Field experiments. It was held on the basis of the educational and experimental farm of the Termez Institute of Agrotechnologies and Innovative Development. The soil of the experimental site is desert-sandy, the water level is 5-7 m. There are very few nutrients. In the experiment, 2 reproductions of seeds of soybean Genetik-1, Oltintoy, Beda, Slavya, Selena, Fovarit and samples of Vavilov, Mars, DilHUZ-100, TAIRI-1 were sown. The area of Paikalchi is 48 sq.m. The experiment consists of 3 returns. On the experimental plot, the same agrotechnical conditions were created for the correct

evaluation

of

variety samples. The studies were carried out according to UzPITI (2007), ITI of leguminous crops (2014) and generally accepted methods.

Research results: according to 2021-2022 data. (Table 1) indicators of the growing season and morphological organs of different soybean varieties and accessions differed. It has been established that the vegetation period of the studied varieties ranges from 85 to 105 days, and it has been determined that varieties with a vegetation period of -85 days belong to ultra-early varieties, varieties with a vegetation period of up to 100 days. days belong to early

ripening varieties, and with a growing season of up to 110 days belong to early ripening varieties (Table 1).

It has been observed that soybean varieties differ sharply from each other in the formation of plant organs. The height of the plants of the newly studied varieties Selena, Slavya Vavilov and samples of Mars, Dilhuz, TAIRI-1 is 80 cm. It was higher than in tall varieties, the same pattern was observed, the location of the first productive branch on the stem was 17 cm above ground level. In the studied varieties and samples, after the ripening period, the pods cracked and the grain dispersion was 4-5 points.

The trunk is long. after the maturation phase, the non-disintegration of the grains was 5 points, the 1st pod in the lower part of the stem at a height of 17 cm from the ground level. 32 centners/ha from varieties suitable for harvesting at altitude, more crops were grown.

It should be noted that the dispersion of grains in legumes does not depend on the height of the plant, the shape of the stem, and the location of the first productive branch above ground level. soybean harvesting varieties, in order to be harvested in a combine, soybean variety is tall, the first productive branch is 17 cm above ground level, located above, it is necessary to have complex characteristics, such as non-scattering of grains after the ripening phase.

Conclusion: the harvest of soybean varieties Optima, Slavya, Selena, Vavilov and samples of Mars, TAIRI-1 in the ripening phase on nutrient-poor desert sandy soils of the Surkhandarya region, the first harvest on a stem 17 cm from the surface of the branch. Due to its height, it is suitable for harvesting these varieties and samples in a combine.

It is desirable to develop the selection of varieties suitable for combine harvesting and to increase the initial seeds of these varieties.



Table 1

Suitability of different varieties of soybeans for harvesting in a combine harvester

N ^o	Varieties and Samples	Growing period, day	The variety is a bush shape	Plant height, cm	The height of the 1st harvest branch from the ground level, cm.	Grain dispersion during ripening, score	Average yield, s/ha	Suitability for harvesting in combine harvester
1	2	3	4	5	6	7	8	9
1	Genetik-1 (standart)	86	noise	48	13	4	24,3	average
2	Beda	104	common	68	17	4	25,5	average
3	Oltintoj	87	common	57	12	5	28,2	average
4	Vavilov	110	noise	93	22	5	32,3	very good
5	Mars	92	noise	102	21	5	33,1	very good
6	Dilhuz-100	84	common	91	19	5	27,8	good
7	Optima	110	common	77	16	4	29,4	good
8	Selena	104	noise	82	22	5	30,5	very good
9	Slaviya	108	noise	88	22	5	32,4	very common
10	Fovarit	101	noise	66	18	4	28,6	good
11	TerAIRI-1	87	noise	108	23	5	34,7	very good
	TSD ₀₅						1,4 s/ha	

References:

1. Abdukarimov D.T. Private selection of field crops / textbook / Soya selection / T. 2007 238 p.
2. Atabayeva H.N. "Soy", Tashkent, "National Encyclopedia of Uzbekistan", 2004, 96 pages.
3. Atabaeva H. N, Khudoykulov J.B. Plant science / textbook / Soy / T 2020. 138-139 p.
4. Oripov RO, Khaliliov N. X. Plant science T. 2007 88 p.
5. Khalilov N., Lukov M., Israilov A. New varieties of soybean agrotechnikasi Agricultural magazine of Uzbekistan No. 6. T.2017. 13 p.
6. Yormatova D. Khushvaktova H. Oil crops Tashkent 2009. 88 p.
7. Yormatova D. "SOY" cocktail. T. 1989 121 p.

