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Perennial Olabuta Species-Sowing Qualities of Seeds of Atriplex Undulata and Atriplex Canescens

Khamraeva Gulnoz Usmonovna
Doctor of Philosophy Agricultural Research Institute of karakulma and Desert Ecology, Samarkand City

Annotation: the article presents the results of the study of the weight, purity and sensitivity of seeds of plants of plants of plants of Atriplex undulata and Atriplex canescens to 1000 pieces of females. Data are presented on the fact that cold stratification before sowing seeds sharply increases their germination.

Keywords: absolute mass of seeds, cold stratification, mechanical scarification, chemical scarification, purity of seeds, flouriness in laboratory conditions, small seeds, large seeds.

Introduction. One of the crucial aspects of sustaining our republic's food security is the rearing of pasture cattle. However, the sector is still undergoing substantial expansion, and the climate continues to be a major factor in how well it performs. The goal is to significantly expand the number of Karakul Sheep heads during the next few years. Additionally, the primary source of feed, desert pastures, cannot fulfill the demand, and the sector experiences large losses when there is a drought. Therefore, increasing pasture productivity, which is one of the key factors in the rapid development of cattle breeding, as well as such crucial tasks as increasing feed production in the country, were given a lot of attention in the decisions of the president of our country dated March 14, 2018 no. PQ-3603, no. PQ-4243 of February 19, 2019, and. The initial actions to ensure decision execution were done in 2019.

In order to guarantee the safety of our food supply, pasture livestock must be developed sustainably in our nation. In turn, this calls for enhancing low-yield pastures in order to increase the industry's feed reserves. Organizing seed production of these types and the growing of their seeds in the necessary amounts is one of the most essential jobs.It is very practical to evaluate the crop attributes of the developed seeds when carrying out these pressing responsibilities.

The goal of the study. Atriplex undulata and Atriplex canescens seeds were used as quality indicators for 1000 units of seed weight, purity, and sensitivity under laboratory settings.

Source of the study. seeds of Atriplex canescens and Atriplex undulata were served.

Research approach. Using well established techniques in Seed Science, the purity and sensitivity of seeds from the plants Atriplex undulata and Atriplex canescens, as well as the weight of 1000 pieces of females, were examined (Kuleshov, 1963; Lyushinsky, Prijukov, 1973; Leurda, Belskikh, 1974; Grisenko, Kaloshina, 1976). B in the biostatistical evaluation of the collected data. A. Dospekhov's stylistic choices (1979)

Analysis of research results.

Purity of seeds. The cleanliness, looseness, and absolute mass of seeds are some markers of their sowing properties. The method used to harvest seeds has a significant impact on their purity, and this issue has recently found a technical answer. G.). Since the seed processing for desert feedstocks has not yet been automated, the seeds are currently typically collected and cleaned by hand.

The purity of the seeds of a hand-picked desert feedbop plant is presented in Table 1. For example, the purity of the seeds of the tail is 40.5%, the purity of the seeds of the brood is 49.6%, that of the teresken plant is 64.5%. Of the perennial olabuta species, the Atriplex canescens plant was - 51.6%, in the Atriplex undulata species this figure was slightly lower, that is, 37.2%. It is worth noting here that the manual harvesting of seeds is also associated with the state of the formation of seeds on the stem.

Table 1 the purity of the seeds of desert feedbop plant species, %. (2008 y.)

T/p	Plant type	Purity of seeds,%
1	Tail (Salsala arientalis)	40,5
2	Lachan (Halothamnus subaphylla)	49,6
3	Teresken (Ceraotoides ewersmanniana)	64,5
4	Atriplex canescens	51,6
5	Atriplex undulata	37,2

If the seeds of the tailed, sedge, teresken, and Atriplex canescens plants ripen in distinct fasts on the three portions of the STEM, then the seeds of the Atriplex undulata plant are developed in the leaf axils all along the stem, are numerous, and develop side branches of the second and third orders. As a result, the purity of Atriplex undulata seeds makes them slightly less valuable than seeds from other species.

Mass of seeds. One of the key factors determining the quality of seeds is the mass of the seeds (the mass of 1000 seeds). This indicator is a trait that distinguishes plant species, even within individual variations, and in the majority of situations, selection-selection activity is done that is specifically targeted to this trait. Large, active grass will sprout from the seeds when they are large enough. According to Special Studies, the Izen plant's seeds are more soluble in both lab and field settings the larger they are. As can be seen from Table 2 data, 1000 grains of seeds from different desert feedbo p plant species have different absolute masses, namely, absolute mass of seeds-6.7; while seeds of atriplex undulata-3.5 g. The solubility of Izen seeds with a diameter of 3-4 mm in large seeds is 3 times higher than that of seeds with a diameter of 1.5 mm in laboratory conditions, and the solubility in field conditions is 2.5 times higher. The original (descended from IKARDA and IKBA) species of Atriplex canescens and Atriplex undulata had much more absolute masses of seeds in Garnabchol, which is a new habitat for them, indicating that they have adapted to the new soil-climatic circumstances.

Table 2 the mass of seeds of desert feedbop plant species, g. (2008-2012 YY.)

T/p	Plant type	Mass of seeds 1000 pieces, г				
		2008 й	2009 й	2010 й	2011 й	2012 й
1	Tail (Salsola orientalis)	8,4	7,1	7,6	7,8	8,3
2	Lachan(Halothamnus subaphylla)	15,3	14,2	14,4	14,8	15,1
3	Teresken (Ceraotoides ewersmanniana)	5,8	5,4	5,5	5,6	5,7
4	Atriplex canescens	6,7*	7,4	7,5	7,7	7,5
5	Atriplex undulata	3,5**	3,6	3,8	3,9	3,8

Note: *original seeds from IKARDA and * * IKBA

Germination of seeds in laboratory conditions. The ability of Atriplex canescens and Atriplex undulata seeds to dissolve at various air temperatures. As you are aware, for seeds to germinate, the proper levels of moisture, temperature, light, and other internal and external environmental variables must exist. It turns out that almost all desert fodderbop plants have the characteristic of being floury even at air temperatures that vary greatly. For instance, the seeds of teresken have the characteristic of being floury from the 50s to the 300s, and it is noted that their flouryness is maintained at a level of about 60%. V.P. According to Radchenko, the majority of Chenopodiaceae family species may germinate best at temperatures between 15 and 200 degrees**.**Such a feature was also observed in other species of plants. R.M.Chalbash claims that Izen (Kochia prosrtata L. Cold temperatures are important in the germination of seeds (Schrad). The germination of seeds of plants Atriplex canescens and Atriplex undulata was studied in laboratory conditions by collecting 100 seeds in each variant in a thermostat at a temperature of 20–250s in Petri saucers. As can be seen from Table 3 data, the germination of seeds of the plants Atriplex canescens and Atriplex undulata in laboratory conditions is much lower than that of the control plants, that is, the germination of the seeds of the Izen seeds reached 64.0% when the experiments were carried out for 15 days, while for 30 days only 18.5% of seeds When these experiments were repeated in 2013, the following data were obtained.

The characteristics of the seeds' anatomical structure account for their low solubility in laboratory settings for the plants Atriplex canescens and Atriplex undulata. It is far more difficult for water to enter the seed core of the plants Atriplex canescens and Atriplex undulata, which have hard, woody shells around their seeds. The seed casings of izen and sedge plants are made of a thin veil that is created by the joint growth of the Flower Mound and is particularly delicate when it comes to ripeness, well-suited to water, and readily crumbles.

Usually such seeds are called hard seeds, and in order to increase their germination, various methods are used (Cold stratification, mechanical scarification, chemical scarification, etc.).G.). We used 2 methods of cold stratification in our experiments: soaking seeds in cold water, keeping them in the dark at 7–120s for 30 days, and keeping them in the external environment in January-February for 30 days in moistened sand.

Table 3 Germination of seeds of desert feedbop plants in laboratory conditions, % (Samarkand, 2012-2013).)

Plant species	Number of seeds sown, graina	Number of germinated seeds, m±m	Excitability,%	Duration of the experiment, day
2012 year				
Izen	100	64,0 ± 2,8	64,0	15
Lachan	100	22,6 ± 2,2	22,6	15
Atriplex canescens	100	18,5 ± 3,2	18,5	30
Atriplex undulata	100	14,0 ±2,4	14,0	30
2013 year				
Izen	100	37,5 ± 1,2	37,6	15
Lachan	100	26,3 ± 1,4	26,3	15

Atriplex canescens	100	12,4 ± 1,3	12,4	30
Atriplex undulata	100	-	-	30

Therefore, it was discovered that by combining the two ways, it is feasible to significantly boost the germination of seeds when we evaluated the sensitivity of seedlings to laboratory settings utilizing stratification methods. The solubility of 82.6% of the seeds from Atriplex canescens and 60.8% of the seeds from Atriplex undulata was attained in 17 days, particularly when the seeds were initially coagulated in water for 2 days and stored in dark settings for 30 days at a temperature of 7-120s. Atriplex canescens for 17 days and Atriplex undulata for 52.4% of the seeds were successfully germinated after 30 days of cold stratification of the seeds in sand.

Table 4 In the cold stratification of seeds of Atriplex canescens and Atriplex undulata, the solubility in laboratory conditions,%.

(Samarkand, 2015.)

Plant species	Control	Storage in the external environment (January-February) in moistened sand for 30 days	Soak in water for 2 days, for 30 days Storage in dark conditions at a temperature of 7–120s
Atriplex canescens	12,4 ± 1,3	64,6 ± 2,1	82,6 ± 1,9
Atriplex undulata	13,6 ± 0,9	52,4 ± 2,3	60,8 ± 2,6

$t = 30{,}5 > t_{0,05}$ (1,96) and $> t_{0,01}$ (2,58)

The data from the experiment are reliable at 5 percent and 1 percent levels. The data from these experiments show that the assessment of the sowing qualities of all types of plant seeds based on generally accepted methods at present will not be methodically correct, and an individual approach to this issue is required.

The seeds of Atriplex canescens and Atriplex undulata must be stored in sufficiently moistened sand for 30 days in January or February in a dark room at a temperature of 7 to 120 degrees with cold stratification in the surrounding environment, or they must soak in water for two days and then soak for 30 days. To better understand the germination of the Atriplex undulata plant's seeds, a number of studies were conducted, and intriguing data were collected.

Seeds of Atriplex canescens and Atriplex undulata are surrounded by a hard and crispy shell, and experiments to determine their solubility in laboratory conditions require long periods of time. When assessing the sowing qualities of seeds of plants Atriplex canescens and Atriplex undulata, the use of generally accepted methods in seed production does not always ensure the achievement of purposeful results.

These seed samples were stratified in 2 different methods, which significantly improved their solubility. Similar to other domestic phytomeliorant species, Atriplex undulata seeds had a relatively low field-share germination rate of 26.0% when planted in the ground. This rate refers to the germination of unprocessed seeds.

On the plant, different-sized seeds develop. It was discovered that little seeds initially start to germinate when researching the solubility of mixed and stratified seeds in a laboratory setting. When the seeds were separated into two fractions and sorted based on size, it was discovered that 1000 pieces of large seeds had an absolute mass of 4.1 g while those of small seeds had 3.0 g.

In the first method of stratification, the seeds were sufficiently moistened and mixed in river sand and kept in field conditions for 30 days in January-February. The solubility of these seeds in field conditions was 35.0% or reached 34.6% higher than control, in the second method of stratification, the seeds were coagulated in water in January-February (for 2 days), and then stored for 30 days in chalk bags at a temperature of 7-120 C. In order to prevent the soaked seeds from drying out, chalk bags with seeds were wrapped in plastic bags (black).

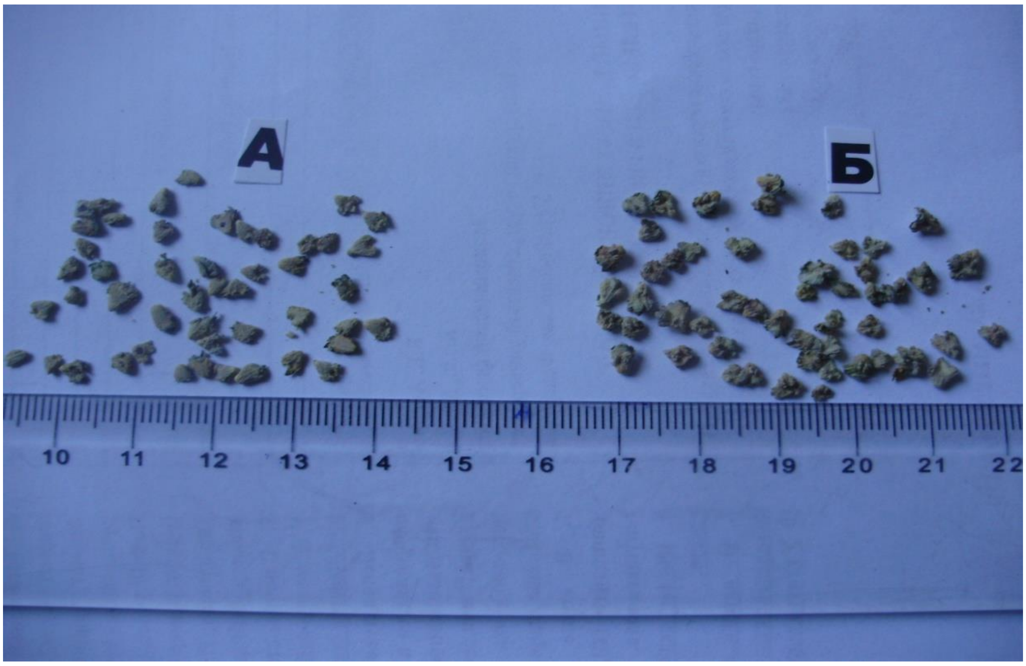

Figure 1. Seeds of Atriplex undulata of various (A-small, B-large) sizes

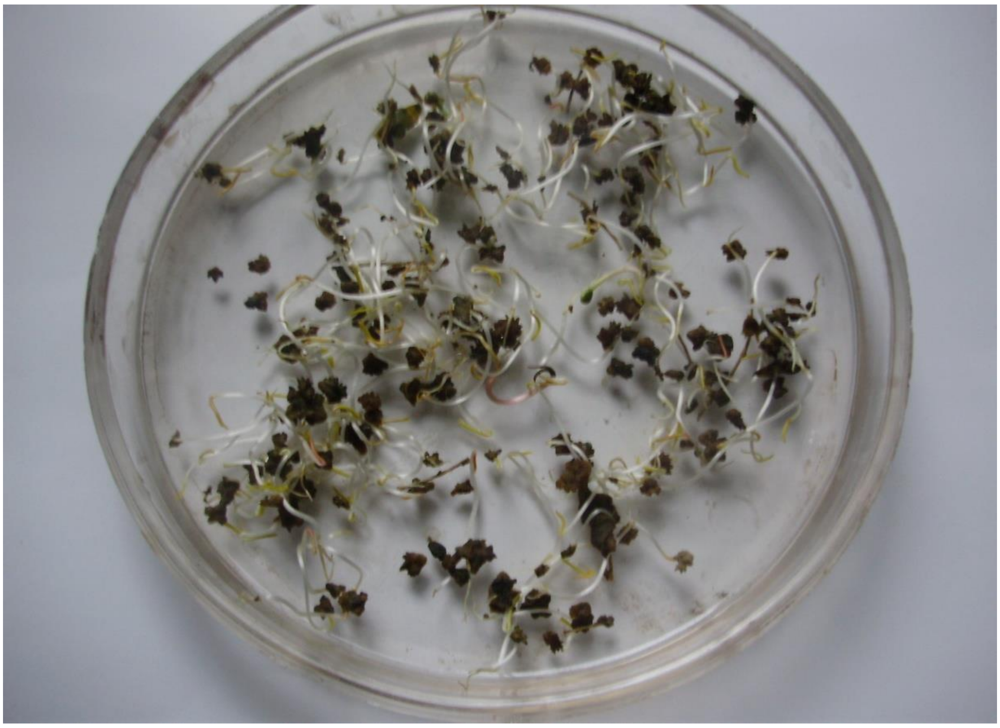

Figure 2. Germination of stratified Atriplex undulata seeds

Table 5 the solubility of stratified Atriplex undulata seeds in field conditions in various methods

Seed processing methods from sowing Olin	Sprouted grass number, pieces M ± m	Excitability, %	In relation to control %
Control (unprocessed seeds)	13,0 ± 1,4	26,0	100
Seeds stored in the external environment in the sand for 30 days	17,5 ± 1,8	35	134,6
Seeds soaked in water for 2 days and stored in dark at 7-120s for 30 days in wet bags	24,7 ± 1,7	49,4	190,0

$t = 5,3 > t_{0,05}$ *(1,96) and* $> t_{0,01}$ *(2,58)*

Atriplex undulata seeds are different from the seeds of other local phytomeliorant species in that they have a different anatomical structure. This is because the seeds of this plant are surrounded on the outside by a woody hard shell, which makes it more difficult for water to enter the endosperm and reduces germination. The percentage of seeds that germinated after being stored in this option in field conditions was 49.4%, which was found to be 90% greater than the control. The second method of stratification is effective, according to the biostatistical analysis of the data produced, and the data dependability is t = 5.3 in value by Criterion t, and is also reliable at levels of 5.

Conclusions. The solubility of the woody hard shell that surrounds the seeds of the plant species Atriplex canescens and Atriplex undulata in laboratory settings is 2-3 times lower than that of species that belong to domestic species. Both species' seeds can be cold- stratified before planting to increase their sensitivity to lab and field conditions by mixing them in wet sand for 30 days in January or February, or by soaking them in water for two days and then storing them in moistened chalk bags (January or February in the external environment, in dark conditions). Variable-sized seeds have different germination rates, with comparatively small seeds typically germinating more quickly.

REFERENCES:

1. Resolution of the president of the Republic of Uzbekistan dated March 14, 2018 No. 3603 PP “on measures for the rapid development of the Karakulma sector”. Lex.uz.
2. Resolution of the president of the Republic of Uzbekistan on March 18, 2019 PQ-4243 “on measures to further develop and support the livestock network”. Lex.uz.
3. Grisenko V.V., Come Z.M. Semenavedenie palevix culture. Izd. 2-e, pererab. I DOP. M., "Kalas", 1976.-178 P.
4. Daspexov B.A. Methodology polevogo opita. M.: Kalas. 1979.- 416 P.
5. Koleshav N. N. Agronomicheskoe semenovedenie. Izdatelstvo selskohozyaystvennoy literaturi, logov I plakatov. M.-., 1963.- 303 P.
6. Lyushinsky N.N., Pricokav F.B. Semenovodstvo mnogoletnix Trav. M., "Galas", 1973.- 247 P.
7. Leorda I. G., Belskix L.V. Opredelenie kachestva semyan. M., "Galas", 1974. -100 P.