
CONTROL OVER SEED GRAIN CONDITION AND QUALITY DURING STORAGE.

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Annotation.

During the period of full ripening of seed grains, a certain period must pass after harvesting, i.e., a rest period, in order for its viability and germination rate to return to normal. The duration of the dormant period depends on the type of plant and its variety characteristics, the development and ripening of the seed in the mother plant, and the storage conditions of the seed after harvesting.

Key words.

Seed, resting period, protein, grain pile, stack, silo, warehouse, thermometer, storage.

Introduction.

The ripening of seeds does not stop even during its harvesting, storage and rest period. At the time of seed collection, it is morphologically mature, but its germination power and level are still low. A.N. Pavlov[2; 167-p.] determined that if the synthesis process stops after harvesting the wheat crop, the rearrangement of substances will continue for 30-60 days. Especially at the expense of non-protein nitrogenous substances, protein synthesis continues, that is, protein re-condensation occurs. After harvesting, the oil content of wheat grain increases due to the decrease in the acid number of the oil. That's why, taking into account that wheat grain continues to ripen after harvesting, it is important to pay attention to its storage.

O. Yaqubjonov, S. Tursunov, Z. Muqimov [3; According to 266-b], when the seed is fully matured, it must pass a certain period after harvesting, i.e., a rest period, in order for its viability and germination rate to return to normal. The duration of the dormant period depends on the type of plant and its variety characteristics, the development and ripening of the seed in the mother plant, and the storage conditions of the seed after harvesting. During this period, the seed undergoes physiological and biochemical processes, they fully ripen and acquire

the characteristic of germination. Depending on the conditions during the ripening period of the seed, the dormancy period is different. If this period is cool and dry, the dormancy period of the seed will be extended, on the contrary, if it is warm and dry, the dormancy period will be shortened. Under the influence of certain conditions, the physiological ripening of seeds, i.e., if there is a lot of precipitation during the rest period, it is possible to shorten the rest period as a result of heating and airing the crop in the sun.

The main part.

Seed materials are stored in grain receiving enterprises in accordance with a number of storage rules.

In order to maintain the quality of the seeds when they arrive at the grain receiving enterprise, it is necessary to establish a regular monitoring of the temperature and humidity of the ambient air, organoleptic indicators of grain quality (smell, color), damage and germination. Control is carried out for each individual batch or volume (stack, silo, warehouse, etc.). The upper level of the pile of large batches (in warehouses) is conventionally divided into sections (each of which does not exceed 50 sq. m.), each of which is independently monitored. In warehouses with a pile height of more than 1.5 meters, the temperature of the seed grain is determined by a thermometer at at least three points. In particular, at a depth of 30-50 centimeters from the top surface, in the middle of the pile and on the floor. When the height of the pile does not exceed 1.5 meters, the temperature of the seed grain is determined in the two upper and lower layers of the pile. After determining the grain temperature of each seed, thermometers are reset within the section at a distance of 2 meters from each other, observing the chess order. Determination of temperature in silo-type volumes is carried out using equipment for remote temperature control. It is not recommended to place the seed grain in the silo without such devices.

Special temperature monitoring is required for seeds that are not graded for moisture. In cases where it is determined that the grain temperature of seeds has increased (not related to the increase in outdoor temperature), they should be cooled or dried immediately. When monitoring the temperature of seed grain in the spring, it is necessary to pay attention to the temperature increase in the upper layer of the heap adjacent to the southern wall of the warehouse. When the temperature of the seeds rises rapidly, regardless of the increase in the outside air temperature, first of all, it is necessary to take measures to cool them by using means of frequent ventilation. The condition of such seeds is monitored daily.

Each warehouse should have a mercury or alcohol wall thermometer to determine the temperature. The outdoor thermometer must be protected from direct sunlight. It is necessary to have psychrometers to determine the relative humidity of the outside air, as well as inside the warehouse.

The moisture condition of seeds stored in bulk and silo-type volumes in warehouses is monitored at least twice a month, as well as by taking samples and analyzes after each change of location and processing. Determination of moisture content is carried out based on samples taken from the top layer of each batch pile at a depth of 3 meters. In the case of a decrease in the germination of seeds, it is necessary to urgently determine the causes and take measures to cool or dry the seeds without delay, as well as to sell them in the first place.

In order to control the condition of the seeds stored in fabric bags, samples are taken from the bags every 15 days when the temperature of the seed grain is above 10°C and every 30 days when the temperature of the seed grain is below 10°C. according to the seed, it checks the color, smell, moisture and whether it is damaged by grain pests.

Conclusion.

- The following can be concluded from the above-mentioned scientific sources;
- state standard requirements are used for storage and processing of agricultural products [1; No. 05-542], especially in the processing and storage of seed wheat.

- the impact of environmental conditions on seeds having different quality characteristics is incomparable. During the development of plants and seeds, various seeds appear under the influence of environmental conditions.

- the quality of seeds largely depends on the climatic conditions of the region where they are grown. Scientists have determined that in regions with good soil and climatic conditions, seed grains grow well.

- after receiving the seeds collected from the field, they are placed according to their varieties, reproduction and batches. In this process, the seeds are cleaned of foreign impurities and various impurities, which improves the quality of the seeds.

REFERENCES:

1. O'zDst 2823:2014. O'zstandart agentligi. 29.04.2014 № 05-542

2. Pavlov A.N. Об оттоке азота из вегетативных органов в зерне у пшеницы в зависимости от снабжения растений азотом в период налива зерна. – Сельскохозяйственная биология, –М.; 1967. -167 с.
3. O.Yoqubjonov, S.Tursunov, Z.Muqimov. Donchilik. “Yangi asr avlodi”-2009. 266-bet.
4. Маматожиев Ш. И. и др. ФАКТОРЫ, ВЛИЯЮЩИЕ НА ПРОЦЕССЫ ХРАНЕНИЯ ЗЕРНА И НА ПОКАЗАТЕЛИ КАЧЕСТВА //Universum: технические науки. – 2020. – №. 12-4 (81). – С. 75-78.
5. Anvarjonovich D. Q., Ogli X. M. B. The effect of grain moisture on grain germination during grain storage //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 5. – С. 418-421.
6. Idrisov X., Matholiqov R., Xoliqov M. KUZGI BUG ‘DOYDAN KEYIN EKILGAN MOSH NAVLARINING SIMBIOTIK FAOLIYATINI O’RGANISH //O'rta Osiyo ta'lim va innovatsiyalar jurnali. – 2022. – Т. 1. – №. 2. – С. 51-56.
7. Маматожиев Ш. И. и др. ПРЕИМУЩЕСТВА НОВОЙ СИСТЕМЫ ПРИ ПРИЕМКЕ ЗЕРНА //Universum: технические науки. – 2020. – №. 12-2 (81). – С. 96-99.
8. Davronov Q. A., Xoliqov M. B. O. G. L. KUZGI BUG ‘DOY NAVLARINI SAQLASH DAVRIDA URUG ‘LIK NAMLIGINI UNUVCHANLIGIGA TA’SIRINI O’RGANISH //Oriental renaissance: Innovative, educational, natural and social sciences. – 2022. – Т. 2. – №. 10. – С. 1318-1325.
9. Idrisov X., Matholiqov R., Xoliqov M. SUG ‘ORILADIGAN O ‘TLOQI BOTQOQ TUPROQLAR SHAROITIDA MOSH (PHASELUS AUREUS PIPER.) NING “NAVRO’Z” NAVI SIMBIOTIK FAOLIYATINI O’RGANISH //O'rta Osiyo ta'lim va innovatsiyalar jurnali. – 2023. – Т. 2. – №. 1. – С. 5-10.
10. Idrisov X., Matholiqov R., Xoliqov M. MOSHNING “DURDONA VA NAVRO’Z” NAVLARI FOTOSINTETIK FAOLIYATIGA EKISH MUDDATI VA ME’YORINING TA’SIRINI O’RGANISH //O'rta Osiyo ta'lim va innovatsiyalar jurnali. – 2023. – Т. 2. – №. 1. – С. 11-17.
11. Odiljon o’g’li M. O. et al. Effects of Irrigation with Mineralized Waters on Plants and Soils //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 12. – С. 26-30.
12. Idrisov X., Matholiqov R., Xoliqov M. SOYA ZARARKUNANDALARI VA UYG’UNLASHGAN KURASH CHORALARI //O'rta Osiyo ta'lim va innovatsiyalar jurnali. – 2022. – Т. 1. – №. 2. – С. 64-72.

13. Bakhromjon o'g'li K. M. Treatment of Winter Wheat Seed Materials with Pesticides //Texas Journal of Agriculture and Biological Sciences. – 2023. – Т. 14. – С. 18-21.
14. Ёкубов М. А. и др. ЗОТЛИ ҚОРАМОЛЛАР БАРМОҚЛАРИНИГ ЙИРИНГЛИ ЖАРАЁНЛАРНИ УЧРАШ ДАРАЖАСИ //PEDAGOG. – 2022. – Т. 1. – №. 4. – С. 1083-1087.
15. Odiljon o'g'li M. O. et al. Effects of Irrigation with Mineralized Waters on Plants and Soils //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 12. – С. 26-30.
16. Hayitmurotovich K. I., Qizi M. G. M., Odiljon O'g'li M. O. Root System Development And Its Activity //The American Journal of Engineering and Technology. – 2021. – Т. 3. – №. 03. – С. 65-69.
17. Idrisov X. A. et al. Nurmatov UO Mamatkulov OO Rasulov A.. Asqarov H. Results of analytical study of growth, development and grain yield of mung bean (*Phaseolus aureis Piper*) varieties //INTERNATIONAL JOURNAL OF SPECIAL EDUCATION, SCOPUS. – Т. 37. – №. 3. – С. 2022.8880-8886.
18. Odiljon o'g'li M. O. et al. Effects of Irrigation with Mineralized Waters on Plants and Soils //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 12. – С. 26-30.
19. Маматожиев Ш. И. и др. ФАКТОРЫ, ВЛИЯЮЩИЕ НА ПРОЦЕССЫ ХРАНЕНИЯ ЗЕРНА И НА ПОКАЗАТЕЛИ КАЧЕСТВА //Universum: технические науки. – 2020. – №. 12-4 (81). – С. 75-78.
20. Mamatqulov O., Qobilov S., Abdullaaxatov A. FARG 'ONA VILOYATI SHAROITIDA TOK KASALLIKLARIGA QARSHI KURASHISH //Science and innovation. – 2022. – Т. 1. – №. D6. – С. 307-311.