

КУЗГИ БУҒДОЙНИНГ КОНСТАНТ ДУРАГАЙ ЛИНИЯЛАРИ ДОННИНГ ТЕХНОЛОГИК СИФАТ КЎРСАТКИЧЛАРИНИНГ ТАХЛИЛ ҚИЛИШ

*Analysis of grain technological quality indicators of constant hybrid lines of winter
wheat*

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Abstract: *Winter wheat has a high soil requirement and thrives on gravel and well-drained soils rich in humus and nutrients with deep groundwater. In this type of soil, wheat roots develop well and use organic elements sparingly. In the conditions of irrigated land, if the rate of mineral fertilization and the period of application are correctly selected, and the rest of the agrotechnical measures are correctly applied, it is possible to get a grain yield of 60-70 centners per hectare, or even more. Wheat cultivars were studied by planting in an experimental field.*

Key words; *The period of windrowing, powdery mildew and fusarium, grain filling and ripening phases, soil fertility, high rate, planting rate*

Аннотация: *Кузги бугдойнои тупрокка бўлган талаби юқори булиб, у шагал тошлар ва ер ости сувлари чуқур жойлашган чиринди ва озука элементларга бой яхши сув утказиш қобилиятига эга бўлган тупроқларда яхши ўсади. Бундай турдаги тупроқларда бугдойни илдизи яхши ривожланади ва озика элементлардан тежамли фойдаланади. Сугориладиган ер шароитида минерал ўғитлаш меъёри ва кўллаш муддати тўғри танланиб, қолган агротехника тадбирлари тўғри кўлланилганда гектаридан 60-70 центнер, хатто ундан ҳам юқори дон ҳосили олиш мумкин. Ушбу мақолада Республикани сугориладиган ер майдонларида экиладиган бошқоқди дон экинларининг 25-30 фоизни ўта эрта ва эртапишар бугдой навлари ташиқил қилингани тажриба даласи экиб ўрганилган.*

Калит сўзлар; *най ўраш даври, қорақуя ва фузариоз, доннинг тўлиш ва сут пишиш фазалари, тупроқларида ҳосилдорлик, юқори меъёр, экиш меъри*

Абстрактный: *Озимая пшеница требовательна к почве и хорошо себя чувствует на гравийных и хорошо дренированных почвах, богатых гумусом и питательными веществами, с глубокими грунтовыми водами. В этом типе почвы корни пшеницы хорошо развиваются и экономно расходуют органические элементы. В условиях орошаемых земель, если правильно подобрать норму минеральных удобрений и сроки внесения, а также правильно применить остальные агротехнические мероприятия, можно получить урожай зерна 60-70 ц/га, или и даже больше. Сорта пшеницы изучались путем посадки на экспериментальном поле.*

Ключевые слова; *Период валкования, мучнистая роса и фузариоз, фазы налива и созревания зерна, плодородие почвы, высокая норма, норма посева*

INTRODUCTION

Along with the growing population of the world, it is natural that the demand for grain products among all agricultural products will also increase. One of the best ways to positively solve this problem is to create new varieties of grain crops that are productive, have high grain quality, and are resistant to drought, diseases, and pests.

Among grain crops, winter wheat is characterized by its strong demand for external environmental factors.

In the years when the weather conditions are unfavorable for the cultivation of winter wheat, a large part of the plants in the cultivated fields will die. For this reason, the selection of the variety and its correct placement, taking into account the demand of wheat to external environmental factors, will give a positive result. Winter wheat's demand for air temperature, moisture, light, soil and food elements are not the same during the whole period of the plant, but it is different and unique in each phase of its development. Therefore, the plant's demand for external environmental factors changes depending on the plant's development phase, soil and climate conditions, as well as the biological characteristics of the variety. Cultivation of abundant and high-quality grain from winter wheat requires the creation of external environmental conditions that can fully reveal the potential opportunities of the genotype of the cultivated variety. This, in turn, makes it possible to grow grain of higher quality than winter wheat under irrigated land conditions. Demand for heat, winter wheat in different phases of growth and development, its demand for air temperature is different. Wheat germinates in 7-9 days under normal conditions. Demand for heat, winter wheat in different phases of growth and development, its demand for air temperature is different. Wheat germinates in 7-9 days under normal conditions. From planting to germination, a useful total temperature of 116-139°C is required. After 14-15 days after the seed has fully germinated, when the air temperature is 12-15°C, the accumulation in wheat begins. The germination and planting period can last 30-45 days depending on the temperature and humidity. Accumulation occurs in autumn and spring. At low air temperature (6-10°C), the general development level of the plant decreases, even if there is enough moisture. Together with planting, nitrogen fertilization at the expense of 25-30 kg of active substance per hectare accelerates the process of formation. In experiments conducted in 2006-2008 at the Scientific Research Institute of Grains and Legumes on Irrigated Lands, it was observed that winter wheat increased the accumulation coefficient when it was fed with nitrogen at the rate of 34 kg per hectare.

Demand for heat, winter wheat growth and

When the weather conditions are good, each plant can produce 3-4 stems based on clumping. During the transition of winter wheat from autumn to winter dormancy, the air should be open, dry, and the temperature should be 10-12°C during the day and 6-7°C in the evening. In autumn, when the temperature is 4-5°C, the plant stops growing. In early spring, when the air temperature rises to 5°C, plant growth and additional flowering continue. In early spring, the air temperature is 10°C during the day and 10°C at night, and frequent changes in one direction or another are considered dangerous for winter wheat. Winter wheat can withstand frost up to 16-18°C. The results of winter wheat resistance tests of winter wheat

cultivars in the experimental field of the institute in 2007-2008 showed that local cultivars (Chillaki, Mars-1, Andijon-4) retain their vitality at a temperature of 20°C.

The Krasnodarskaya-99 variety belonging to the Krasnodar selection is characterized by extreme cold resistance. This variety tolerates winter frosts of 20-25°C under the blind layer. It is considered acceptable that the temperature of 12-14°C is suitable for wheat germination and flowering. But in the conditions of Uzbekistan, when winter wheat is planted, this temperature is 17-20°C.

But in the conditions of Uzbekistan, when winter wheat is planted, this temperature is 17-20°C. In general, action on wheat lasts from 2-3°C to 36-37°C. If the decrease in air temperature coincides with the phase of wheat filling, the formation of lateral stems, stem and leaf growth in the tuber phase will decrease. In the flowering phase, the number of fertilized flowers decreases, in the grain flowering phase, the number of empty grains increases, the mass of 1000 grains decreases, and the yield decreases. Sun pollen affects the physiological processes occurring in the plant. The transition of the plant to the light stage depends on the duration of daylight. If the wheat plant does not pass the light stage, it will not produce an ear. Wheat goes through the light stage, usually during the transition from the tiller to the tuber phase. Fast flowering of wheat depends on the length of the day, that is, the longer the day, the faster the wheat blooms.

Soil and nutrient requirements of winter wheat. Winter wheat has a high soil requirement and grows well on gravel and well-drained soils rich in humus and nutrients with deep groundwater. In this type of soil, wheat roots develop well and use organic elements sparingly. In the conditions of irrigated land, if the rate of mineral fertilization and the period of application are correctly selected, and the rest of the agrotechnical measures are correctly applied, it is possible to get a grain yield of 60-70 centners per hectare, or even more. The physical and chemical properties of the soil play an important role in increasing productivity. For this, changing crop types in crop rotation, tilling the soil, and creating a scientifically based water and nutrition regime will give high results. Wheat requires a large amount of nutrients during the growing season. The slow development of winter wheat, the decrease in productivity is caused by the lack of the main nutrients nitrogen, phosphorus and potassium.

The slow development of winter wheat, the decrease in productivity is caused by the lack of the main nutrients nitrogen, phosphorus and potassium. In addition to these, trace elements are required in small amounts for the normal physiological processes in the plant. Winter wheat's demand for mineral elements depends on the amount of mineral elements in the soil in a condition that can be easily absorbed by the plant, the speed of plant development, well-developed root system, external environmental conditions and the biological characteristics of the variety. Winter wheat growth slows down due to insufficient nitrogen, phosphorus, potassium and some trace elements in the soil. Wheat takes in large amounts of nitrogen, phosphorus, potassium, calcium and magnesium during the growth period. In addition to these, wheat also receives a certain amount of iron, sulfur, copper and bromine during the growth process. All these elements are important for the plant, and each of them has a specific place in the physiological and biochemical processes occurring in the plant. Nitrogen - wheat growth, development and formation of grain crop cannot occur without nitrogen. Plant vegetative mass,

increase of protein and gluten content of grain, and formation of grain yield are included in organic compounds to the level of nitrogen supply to the plant. Too much or too little nitrogen has a negative effect on plant growth, development and productivity. When there is a lack of nitrogen, the growth rate of the plant decreases, the leaves turn pale green and begin to dry. The leaf surface becomes smaller and the dry mass decreases. Also, lack of nitrogen has a negative effect on wheat stem productivity, crop structure elements, the number of grains in the ear and the mass of 1000 grains, the amount of protein and gluten in the grain. Therefore, the technological and non-optical quality of grain is not at the required level

Agroecological description of wheat varieties

Table-1

| Name of the variety | Plant type | Duration of operation | Cultivation agrophone | Recommended planting dates |
|---------------------|---------------|-----------------------|-----------------------|----------------------------|
| Andijan-1 | medium height | very fast | high | Acceptable |
| Andijan-2 | medium height | very fast | up | Acceptable |
| Andijan-4 | medium height | Morning | high | Acceptable |
| Babur | medium height | very fast | medium, high | Acceptable |
| Productive | medium height | very fast | medium, high | Acceptable |
| Chillaki | Half a piece | very fast | medium, high | Acceptable |
| Babur | medium height | very fast | medium, high | Acceptable |
| Mars-1 | medium height | Morning | up | Acceptable |
| Amasterpiece | medium height | very fast | up | Acceptable |
| Fortitude | medium height | very fast | medium, high | Acceptable |

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25-30 percent of the grain crops planted in the irrigated areas of the republic are very early and early-early wheat varieties. Varieties with early ripening require 1-2 times less water due to their growth period. These varieties ripen 8-12 days earlier than the mid-early varieties and allow early replanting of such wheat varieties. Another advantage of these varieties is that they ripen before the weather suddenly warms up, they are not affected by rust diseases

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