

GROWTH AND DEVELOPMENT OF WHEAT VARIETIES.

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Abstract: This article presents data on growth and development rates, phenological periods and transitions, growing season duration, winter dormancy, yield, grain quality, and stress tolerance in wheat cultivars. .

Key words: fertility, fallow, phenological period, breeder, organogenesis, productivity, grain quality, early ripening, salinity, fruitfulness.

It is known that agriculture is the main branch of our republic. Agriculture is the main factor that provides human needs for food products and industry for raw materials.

Increasing grain production in our country and increasing the productivity of irrigated areas is directly related to the planting of wheat varieties suitable for certain soil and climatic conditions, because winter wheat varieties fulfill their internal productivity potential in the soil and climate conditions of all regions of our country. does not make it invisible.

If one variety fully shows the characteristics of quick ripening, productivity, and resistance to diseases in a certain region, the opposite may be true in another region, or these characteristics may not be fully manifested.

In order to create varieties that are resistant to adverse external conditions, especially soil salinity and diseases, in the territory of the Republic, the selection scientists are the first to identify the primary sources that meet these requirements and create new selection varieties based on them. there are urgent tasks ahead.

It is known that plant growth means an increase in plant mass regardless of its organ, and development means the succession of periods of plant organogenesis.

Growth and development in cereal crops can be in the following proportions:

1. Fast growth, slow development - in this case, the growth of leaves and root masses occurs, the formation of generative organs is delayed a little, and the crop mass is less grainy.

2. Slow growth and rapid development - in this case, the plant stops growing, lacks sufficient root, leaf mass, and organic matter, but passes

through the stages of organogenesis quickly, resulting in spikes with low mass and the yield decreases.

3. Fast growth, fast development - in this case, a normal ratio is formed between the surface of the leaf plate and the mass of the plant, as well as the stages of organogenesis. In the same ratio, a mass of equal proportions is formed between the grain and the stem of plants.

4. Slow growth and slow development - in this case, a small mass of the plant is formed, and they ripen late.

It is necessary to create favorable conditions for plants as a result of the rational use of all technological means while monitoring the growth and development of grain crops.

Cereal crops have been found to go through several phenological periods during the growing season. Each period is fundamentally different in structure, appearance and quality. The following phenological periods have been identified in cereal crops; grassing, tufting, tuberization, earing (fruiting), flowering and ripening. If it is determined that 10% of the plant has passed into each new period, it means that the plant has fully passed into this period.

The change of development periods is represented by the appearance of new organs in plants.

Its suitability for growing in certain soil and climate conditions is determined by the length of its growing season. Plant productivity, grain quality, and its tolerance to unfavorable factors of the external environment are determined by the length of the growing season.

The growth period of a plant includes the period of certain development phases, that is, it includes the periods of sowing-germination, germination-heading, earing-ripening. A short or medium length of the growing season will give a good result for the climatic conditions of Uzbekistan.

Compared to spring wheat, the initial stage of the autumn wheat growth period takes place at relatively low positive temperatures. Therefore, more time is required for the formation of blue mass and generative organs. However, even though it takes a lot of time from planting to the beginning of rapid growth in winter wheat, due to the autumn growth period, it is 15-20 days ahead of spring wheat, and ripens earlier than spring wheat.

When determining the optimal planting period, the biological characteristics of the variety and sample and the soil-climatic conditions should be taken into account.

The difference between spring and autumn wheat varieties in the length of the growing season is big. The duration of the growth period of Bakhorg wheat varieties is 70-80 days, in some varieties 120-130 days.

In winter wheat varieties, it can be 180-220 days or more, taking into account the winter rest period. This indicator also depends on the biological characteristics of the variety and the influence of external environmental factors.

The duration of the growth period of winter wheat varieties is 145-190 days, if the winter rest period of winter wheat is not taken into account. Winter wheat does not completely stop growing in winter. Growth continues when the air temperature rises, and stops growing when the air temperature drops. Therefore, the period between one development phase and the second phase of winter wheat is extended. In particular, the increase in the period between the phases is observed more in the tuber phase of wheat germination. The period from germination to tuberization is 35-40 days in spring wheat varieties under normal agrotechnical conditions, and 90-120 days in winter wheat.

In the conditions of Uzbekistan, during the period of wheat earing and ripening, it is first necessary to provide moisture to wheat. The period of earing-ripening is twice as short as the period of germination-earring, in addition, the filling and ripening of wheat grain accelerates the ripening process at high air temperature (+ 35 0C and above). As a result, the ripening period of early and late varieties becomes equal to each other.

Taking this into account, we are planting samples of the wheat collection and studying the differences between the development phases in order to study the change of wheat development phases in Khorezm soil and climate conditions and its effect on productivity.

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