

INFLUENCE OF TYPES OF WEEDS FOUND IN THE WHEAT FIELD AND PESTS ON THE DEVELOPMENT

Bauetdinov Bakhtiyar Otebaevich
Karamatdinov Salauat Saymatdin uli
Karimova Shiyryn Makhmudovna
Karakalpakstan Institute of Agriculture and Agrotechnologies

Introduction. The main peculiarity of the microclimate of the wheat biotope is that the number of plants is 400-500 plants per 1 m² area, and if it produces 5 plants on average, 2000-2500 spikes appear, productivity depends on the development of these phases. In addition, winter wheat seeds are sown in September and wintered in the budding phase, from early spring until the crop ripens in 80-90 days, and the crop is harvested in June. Despite these characteristics of wheat, many weeds and pests appear in the field, and it is known that the main part and quality of the harvest will decrease if the controlling measures are not properly organized.

METHODS OF THE RESEARCH.

Controlling weeds in the wheat field was organized based on the methods of Sh.T. Khojaev [2004]. Conducting scientific research and analyzing the results of dispersion, mathematical statistical processing was carried out based on the method of B.A.Dospekhov [1986].

RESULTS OF THE RESEARCH

The appearance of weeds in the wheat biotope, including the development of weeds together with sprouts in autumn, and the continuation of development in spring for many years, requires consideration as the main biotic factor. The reason is that in this agro-climatic conditions, September is the month when pests of agricultural crops go to wintering. As a result, due to the end of the physiological processes of development in other types of agricultural crops, it was taken into account that the species of insects preparing to go to wintering gather in the wheat field where sprouts have appeared.

The main reason became known as a result of observations in this regard. Table 1 shows the results of observations on identifying the types of weeds growing in the wheat field. As it can be seen from this, in the fields where wheat seeds were sown and sprouts appeared in September, the growth of perennial and annual weeds was observed. The reason is that tilling the soil and keeping the air temperature at 20-25 °C are optimal conditions for weed seed germination.

Depending on the mechanical composition of the soil of the field planted with winter wheat, it was taken into account that the growth of annual and perennial weeds in the biotope continued until November. In the years when the air temperature is hot, the field bindweed and salsolas that grew in the wheat field grew up to 20-30 cm and their leaves increased. In November, when the air temperature drops, the growth slows down, and it was found that it will die completely due to the influence of minus air temperature.

Despite this, it was taken into account that the eggs of earworms (autumn and exclamation marks) increased in the wheat field from September, and the worms continued to feed and went to wintering.

Table 1

Development dynamics of the types of weed species

Chimboy, Kegeyli and Nukus districts, 2022-2023.

Plant types	Names of plants		September	October	November	March	April	May	June
	In Uzbek	In Latin							
Perennial	Common reed	<i>Phragmites australis</i> (Cav) Trin	+	+	+		+	+	+
	Picorice	<i>Glycyrrhiza glabra</i> L.		+	+				
	Amel thorn	<i>Ailanthus glandulosa</i> (Droev) Dew		-	+				
	Field bindweed	<i>Convolvulus arvensis</i>	+	+	+		+	++	++
Annual	Salsola	<i>Salsola</i> L.	+	++	++				
	Cockspur	<i>Echinochloa crusgalli</i> (L) Beauv		+	+				
	Common cocklebur	<i>Xanthoxylum</i> L.		-	+				
	Black nightshade	<i>Solanum nigrum</i> L.		+	+				

Explanation: - not found; + rarely found; ++ found in middle number; +++ found in large numbers.

In addition, it was noted that some types of aphids, including apricot-reed aphids, field aphids and bug (field bug) were found every year, and their number increased to the maximum level and went to wintering.

The results of the analyses in this regard indicate that the wheat varieties grown under these conditions begin to develop from early spring, and perennial weeds continue to develop, and the number of annuals is slightly less.

The growth of field bindweed in the field begins in the autumn months and continues in the spring, which proves that it creates a favorable environment for the development of pests that have wintered in this biotope. As a result, it was taken into account that the species of earworm and aphids, which have increased in these wheat fields, will continue to develop and migrate to other fields as their number increases.

The importance of weeds that appear in the wheat field is that they are a source of food for pests in autumn. In addition, due to the absence of agrotechnical activities in the biotope during the winter, it overwinters in full and provides an opportunity for rapid spread and development from early spring.

Conclusion: It has been theoretically proved that as a result of the structured biodiversity in the biotope, that is, the increase of weeds in the wheat field from early spring is considered the main factor for the development of adapted pests of wheat.

When observing the appearance of weeds in the field planted with wheat, it was taken into account that the species that develop in autumn and spring are present on the edge of the field and in nearby biotopes. Therefore, it has been proven that the pests that have multiplied in the wheat field until June continue to develop in these biotopes in July and August and migrate to the wheat fields in September.

Weeds have been proven to be the main factor affecting the development of insects in the wheat biotope as an effect of external environmental factors. The reason is that among the weeds that have appeared in the field, field bindweed and salsola species are the main food for pests of agricultural crops. As a result, it is necessary to take into account the increased number of species as the main biotic factor of causing damage to wheat sprouts, when generative bodies appear in spring.

Literature

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