



## TURLI XIL STRESS OMILLARDAN GARMSEL OMILINING G'O'ZA BARG SATHIGA TA'SIRI

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### ABSTRACT

*Mazkur maqolada, laboratoriya sharoitida g'o'za o'simligining Buxoro-8 va Buxoro-10 navlarida barg sathining o'zgarishiga garmsel (issiq shamol) omilining ta'siri aniqlandi. Tadqiqot Buxoro-8 va Buxoro-10 navlarining turli vegetatsiya davrlarida olib borildi. Natijada, vegetatsiya oxirida Buxoro-8 va Buxoro-10 navlaridagi variantlarda barg sathi mos ravishda: 2425 sm<sup>2</sup>; 2778sm<sup>2</sup> ni tashkil etganligi aniqlandi.*

Dunyo miqyosida kuzatilayotgan global iqlim o'zgarishlar ya'ni biosferada havo haroratining oshishi, nisbiy namlikning keskin pasayishi, parnik effektining yuzaga kelishi va boshqa sabablar qishloq xo'jaligidagi ekin mahsulotlarini yetishtirishda bir qancha qiyinchiliklarni keltirib chiqarmoqda.

Buxoro viloyatining o'tloqi-allyuvial tuproqlardagi sho'rlanish, havoning quruq va juda issiq bo'lganligi, yog'ingarchilik miqdorining kam bo'lishi, o'simliklarda tranpiratsiya jarayonining yuqori bo'lishi sababli qishloq xo'jaligida yetishtiriladigan ekinlar ko'p bora sug'orishni talab etmoqda. Issiq va quruq shamol (garmsel) iyun oyining oxiri va iyulning boshlarida yuzaga kelib, bu davr ko'pincha qishloq xo'jalik ekinlarining gullash bosqichiga to'g'ri keladi.

O'simlik ildizi garmsel vaqtida tuproqdagi suvni o'zlashtirishi bilanoq tanasidan ko'p miqdorda suv bug'lanadi [1]. Bu kritik faza o'simliklarning gullash davriga to'g'ri kelsa, o'simliklarda hosil elementlarning to'kilib nobud bo'lishiga olib keladi. Natijada, hosildorlik ko'rsatkichining pasayishiga olib keladi [2]. Shu sababdan, bunday noqulay stress omillar ta'siriga chidamli bo'lgan g'o'za navlarini yetishtirish dolzarb masalalardan biri sanaladi.

Tadqiqot obyekti sifatida Buxoro viloyati hududida yetishtiriladigan Buxoro-8 va Buxoro-10 g'o'za navi tanlab olindi. Tajriba Buxoro davlat universiteti Botanika va o'simliklar fiziologiyasi kafedrasining laboratoriyasida sun'iy ravishda hosil qilingan issiq shamol (garmsell)ning Buxoro-8 va Buxoro-10 g'o'za navlaridagi barg sathiga ta'siri aniqlandi va nazorat (stress omil ta'sir ettirilmagan) variantlari bilan solishtirib o'rganildi. Tajriba 4 qaytiriqda, 3 marta o'tkazildi. G'o'za turli vegetatsiya davrlarida garmsellning barg sathiga ta'siri N.N. Tretyakov usuli orqali aniqlandi[3]. Bunda variantlar kesimi bo'yicha g'o'zaning turli o'suv fazalarida mos ravishda: 25-10-

10 va 3 donadan iborat o'simlik namunalardan olingan barglar millimetrli qog'ozda yuzasi ( $\text{sm}^2$ ) hisoblanib, o'rtachasi aniqlandi.

Olingan tadqiqot natijalariga ko'ra, 2-4 chinbarglik davrda birinchi variantdan to'rtinchi variantgacha barg sathining o'rtacha miqdori mos ravishda:  $390 \text{ sm}^2$ ,  $375 \text{ sm}^2$ ;  $415 \text{ sm}^2$ ;  $395 \text{ sm}^2$  ni tashkil etdi. Eng ijobiy natija Nazorat-2 variantda kuzatilib, Nazorat -1 variantga nisbatan barg sathi  $25 \text{ sm}^2$  ortiq ekanligi aniqlandi (1-jadval).

1-jadval

#### Turli xil stress omillardan garmsellning g'o'za barg sathiga ta'siri

T/r	Variantlar	G'o'zaning turli vegetatsiya davrlarida barg sathi ko'rsatkichlari, $\text{sm}^2$			
		2-4 chinbarglik	Shonalash	Gullash	Pishish
1	Nazorat -1	390	1605	1815	2508
2	Buxoro-8	375	1570	1745	2425
3	Nazorat-2	415	1704	2015	2604
4	Buxoro-10	395	1678	1955	2778

Shonalash davrida barg sathi bo'yicha olib borilgan tadqiqot natijalari tahlil qilinganda, Nazorat-1, Buxoro-8, Nazorat-2, Buxoro-10 variantlar kesimida barg sathi mos ravishda:  $1605 \text{ sm}^2$ ,  $1570 \text{ sm}^2$ ,  $1704 \text{ sm}^2$ ,  $1678 \text{ sm}^2$  ni tashkil etishi aniqlandi. Tajriba variantlari ichida eng ijobiy variant, Nazorat-2 variantida kuzatilib, qolgan variantlarga nisbatan mos ravishda:  $99 \text{ sm}^2$ ,  $134 \text{ sm}^2$ ,  $26 \text{ sm}^2$  barg sathi ortiq ekanligi aniqlandi.

Gullash davrida olib borilgan tajriba natijalariga ko'ra, Nazorat-1, Buxoro-8, Nazorat-2, Buxoro-10 variantlarda mos ravishda:  $1815 \text{ sm}^2$ ;  $1745 \text{ sm}^2$ ;  $2015 \text{ sm}^2$ ;  $1955 \text{ sm}^2$  ni tashkil etdi. G'o'za vegetatsiyasining oxirida ya'ni pishish fazasida Nazorat-1, Buxoro-8, Nazorat-2, Buxoro-10 variantlarda barg sathi aniqlanganda, eng ijobiy natija Nazorat-2 va Buxoro-10 g'o'za navlarida kuzatildi.

Yuqorida keltirilgan natijalar asosida quyidagicha xulosalar qilish mumkin: garmsel omili barg hujayralarining o'sishi, rivojlanishini amalga oshiruvchi apikal va interkalyar meristema hujayralarining faolliyatini sekinlashtiradi. Shu boisdan, barg sathi tajriba variantlarida nazoratga nisbatan sezilarli darajada kamayganligi aniqlandi.

Fotosintez jarayoni bargdagi xlorofill donachalarida amalga oshadi. Bargning rangi to'q yashil va sathining katta bo'lishi fotosintez jarayonining jadalligini hamda xo'jalik va biologik hosilning yuqori bo'lishini ta'minlaydi [4] [5].

Buxoro viloyati sharoitida tez-tez kuzatiladigan stressor omillardan garmsellning esishi fiziologik nuqtai nazardan paxta maydonlarida yuqori va sifatli hosil olishda Buxoro-10 g'o'za navini ekish maqsadga muvofiqdir.

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