GLITSIRRIZIN KISLOTASINING RUXLI TUZINING BUG'DOY DONINING UNISH KO'RSATKICHLARIGA TA'SIRI

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Annotatsiya: *Glitsirrizin kislotaning Zn 2+ bilan hosil qilgan kompleksining (GK-Zn) kontsentratsiyaga bog'liq (0,5-100 mkM) «Krasnodar» bug'doy navining laboratoriya sharoitida unish ko'rsatkichi, fotosintez faolligi, xlorofill miqdori, ildizning unish faolligi va xlorofill miqdori o'rganildi. GK-Zn kompleksi (1-100 mkM) ta'sirida bug'doyning yashil biomassasida xlorofill miqdori sezilarli darajada ortishi, jumladan 1 mkM kontsentratsiyada maksimal darajada, ya'ni nazoratga nisbatan 112,4±5,7% ga ortishi qayd qilindi.*

Kalit so'zlar: *Glitsirrizin kislota,rux kompleksi, biomassa, xlorofill,unish darajasi.*

Modda almashinuvi jarayoni mikroelementlar hujayra va to'qimalarda mavjudlik holati bilan ham bog'liq. Tadqiqotlarda Zn mikroelementining modda almashinish va o'simlik hosildorligiga ta'sir ko'rsatkichi alohida qayd etiladi. Shunga ko'ra tadqiqotlar davomida GK-Zn kompleksini bug'doyning o'sishi va rivojlanishidagi faollik darajasi ko'rsatkichlarini optimallashtirishi orqali qishloq xo'jaligida ekinlarning hosildorigini oshirishda foydalanish istiqbolli sanaladi.

O'simliklarning o'sishini rag'batlantirish va abiotik faktorlarga qarshilikni keltirib chiqarish uchun turli xil ekzogen birikmalar qo'llaniladi [1,2,3]. Misol uchun, askorbin kislotasi va kinetin ma'lum kontsentratsiyadagi eritmalarini o'simlik barglari orqali qo'llanilishi o'simliklarining o'sishiga yordam berdi [4]. Glitsirrizin kislotasining monoammoniy tuzi g'o'za urug'ining unib chiqishiga yordam berishi mumkin [5]. Ma'lum qilinishicha, glitsirrizin kislotasi birikmalari ko'p funktsiyali xususiyatlarga ega. Glitsirrizin kislotasining ba'zi tuzlari bug'doyning o'sishi va rivojlanishini tartibga solishi qayd etilgan [6].

Laboratoriya sharoitida amalga oshirilgan tadqiqotlarning navbatdagi seriyasi davomida glitsirrizin kislotaning Zn 2Q bilan hosil qilgan kompleksining (GK-Zn) kontsentratsiyaga bog'liq (0,5-100 mkM) «Krasnodar» bug'doy navining laboratoriya sharoitida unish ko'rsatkichi, fotosintez faolligi, xlorofill miqdori, ildizning unish faolligi va xlorofill miqdori o'rganildi.

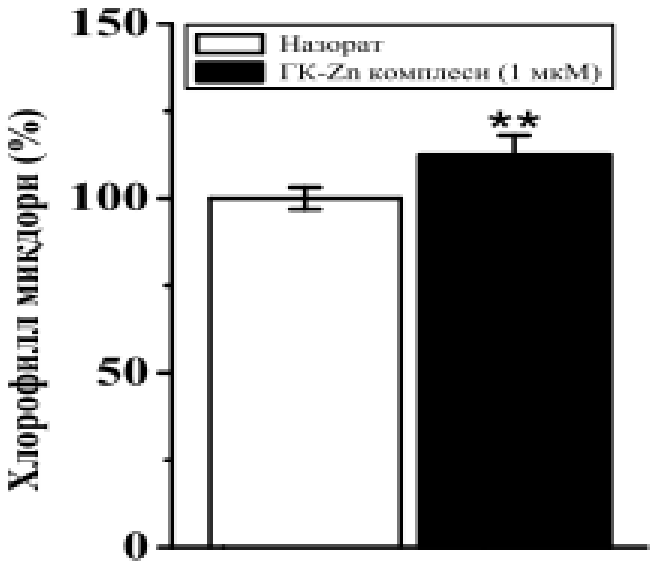
GK-Zn kompleksining «Krasnodar» bug'doy navi ungan donining unish ko'rsatkichlariga ta'siri (M±m)

Tajriba variantlari	Unish darajasi (%)	Maysaning uzunligi (mm)	Ildiz uzunligi (mm)	Biomassaning nam holatdagi og'irligi (g)	Biomassaning quruq holatdagi og'irligi (g)
Nazorat (distillangan suv)	84,1	13,13±0,55	10,04±0,43	2,004±0,32	0,201±0,03
GK-Zn (5×10^{-7} M)	92,1**	14,54±0,54	10,98±0,31*	2,011±0,12*	0,208±0,01*
GK-Zn (1×10^{-6} M)	95,2**	18,34±0,33**	14,13±0,45**	2,213±0,22**	0,234±0,02**
GK-Zn (1×10^{-5} M)	91,3**	16,02±0,41**	14,04±0,64**	2,105±0,17**	0,228±0,02**
GK-Zn (5×10^{-5} M)	90,1**	13,65±0,37*	11,12±0,23**	2,065±0,13*	0,219±0,05**
GK-Zn (1×10^{-4} M)	88,5*	13,02±0,28*	10,34±0,53*	2,011±0,53*	0,213±0,03*
GK-Zn (1×10^{-3} M)	85,8*	14,45±0,55**	9,43±0,54*	2,008±0,23*	0,205±0,03*

Izoh: Nazorat guruhiga nisbatan tajriba guruhlari qiymatlari o'rtasidagi farqlanishning statistik ishonchlilik darajasini ifodalaydi (* - r‹0,05; ** - r‹0,01).GK-Zn ta'sirida «Krasnodar» bug'doy navining laboratoriya sharoitida unish darajasi va o'z navbatida, ildiz uzunligi, nam va quruq hoaltda biomassa og'irligi nazoratga nisbatan ortishi qayd qilindi 1-jadval).

GK-Zn kompleksining bug'doy yashil biomassasi tarkibida xlorofill miqdoriga ta'siri.

Navbatdagi tajribalarda GK-Zn kompleksi (1-100 mkM) ta'sirida bug'doyning yashil biomassasida xlorofill miqdori sezilarli darajada ortishi, jumladan 1 mkM kontsentratsiyada maksimal darajada, ya'ni nazoratga nisbatan 112,4±5,7% ga ortishi qayd qilindi (1-rasm).



1-rasm. GK-Zn kompleksining (10 mkM) «Krasnodar» bug'doy navining yashil biomassasida xlorofill miqdoriga ta'siri.

Ordinata o'qida - xloroifll miqdori (%) ifodalangan. ** - nazoratga nisbatan r<0,05 (nq3-5).

Shuningdek, bug'doyning maysasi uzunligi, ildiz uzunligi va xlorofill miqdori qiymatlari o'rtasida korrelyatsion bog'liqlik mavjudligi qayd qilindi .

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