

O'ZBEKISTON RESPUBLIKASI  
OLIY TA'LIM, FAN VA INNOVATSIYALAR VAZIRLIGI  
URGANCH DAVLAT UNIVERSITETI



“DORIVOR O'SIMLIKAR BIOLOGIYASI VA EKOLOGIYASI”  
FANINING O'QUV DASTURI

Bilim sohasi: 800000- Qishloq, o'rmon baliq xo'jaligi va veterinariya  
Ta'lim sohasi : 810000 – Qishloq xo'jaligi  
Ta'lim yo'nalishi: 60812100 – Dorivor o'simliklarni yetishtirish va qayta  
ishlash texnologiyasi

Urganch – 2024

Mazkur o'quv dastur Urganch davlat universiteti kengashining 2024-yil " " dagi -sonli bayonnomasi bilan tasdiqlangan.

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Mazkur o'quv dastur "Tabiiy va qishloq xo'jaligi fanlari" fakulteti Kengashining 2024-yil " " dagi yig'ilishida muhokama qilinib, tasdiqlash uchun tavsiya etilgan. ( -sonli bayonnom).

Tabiiy va qishloq xo'jaligi fanlari fakulteti dekani: J.Sh. Ruzimov

Mazkur o'quv dastur "Biotexnologiya " kafedrasining 2024-yil " " dagi yig'ilishida muhokama qilinib, tasdiqlash uchun tavsiya etilgan -sonli bayonnom).

Biotexnologiya kafedrasini mudiri: S.X. Babadjanova

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| Fan/modul kodi<br>DO'BEM360 | O'quv yili<br>2024-2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Semestr<br>5-6                         | ECTS - Kreditlar<br>5-semestr -5<br>6-semestr -5      |
| Fan/modul turi<br>Majburiy  | Ta'lim tili<br>O'zbek                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        | Haftadagi dars soatlari<br>5-semestr 4<br>6-semestr 4 |
| 1.                          | Fanning nomi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Auditoriya<br>mashg'ulotlari<br>(soat) | Jami<br>yuklama<br>(soat)                             |
|                             | Dorivor o'simliklar biologiyasi va ekologiyasi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 120                                    | 180                                                   |
| 2.                          | 1. Fanning mazmuni<br><br>Fanni o'qitishdan maqsad - dorivor o'simliklar biologiyasi va ekologiyasi fanining asosiy maqsadi O'zbekiston florasiga mansub dorivor o'simlik turlarining bioekologik va biomorfologik xususiyatlarini o'rganishdan iborat.<br><br>Dorivor o'simliklar ko'p o'sadigan joylarni va zaxirasini aniqlash.<br><br>Tibbiyotda dorivor o'simliklarning tuproq unumdorligini saqlash va oshirish usullari, dorivor o'simliklarning o'sishi va rivojlanishi uchun qulay sharoit yaratish yo'llari; dorivor o'simliklarning biologik, geografik, ekologik guruhlari, kelib chiqishi, tarqalishi, bir yillik va ko'p yillik dorivor o'simliklardan dorivor sifatida uning yer ustki qismidan foydalanadigan bo'lsa uni ildizi bilan sug'irib olmaslik, ya'ni bu dorivor o'simlikni tabiatda yo'q bo'lib ketishini oldini olish, amalga oshirish bo'yicha nazariy xamda amaliy xosil qilishga <i>bilishi va ularni foydalana olishi</i> ;<br><br>- dorivor o'simliklar bioekologik xususiyatlarini urganuvchi ulchovchi asbob-uskunalar bilan ishlash;<br><br>- dorivor o'simliklarni madaniy holda o'stirish tadbirlarini bilish<br><br><i>ko'nikmalariga ega bo'lishi</i> ;<br><br>- dorivor o'simliklarni biologiyasi va ekologiyasini tahlil qila olish;<br><br>- maxsus plantatsiyalar tashkil qilish;<br><br>-dorivor o'simliklarni muxofaza qilish chora tadbirlari;<br><br>- dorivor o'simliklar xom ashyolarini tayyorlash muddatlari to'g'risida |                                        |                                                       |



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| <p>- madaniy/ashitirish tadbirlarini ishlab chiqish <i>malakalarga ega bo'lishi kerak.</i></p> <p><b>II. Asosiy nazariy qism</b></p> <p><b>1-Modul. Dorivor o'simliklar biologiyasi va ekologiyasi</b></p> <p><b>1-mavzu: Kirish. Dorivor o'simliklar biologiyasi va ekologiyasi faning maqsadi va vazifalari.</b></p> <p>Kirish. Dorivor o'simliklar biologiyasi va ekologiyasi fani haqida tushuncha. Dorivor o'simliklarni xalq xo'jaligidagi ahamiyati, o'simliklar geografiyasi, biologiyasi, morfologiyasi, ekologiyasining qisqacha tarixi, hozirgi holati, fanni rivojlantirish istiqbollari boshqa fanlar bilan bog'liqligi. Dorivor o'simliklarni muhofaza qilishda tabiatni muhofaza qilish davlat qo'mitasi tomonidan chiqqan qonun va qarorlar, meyoriy hujjatlar.</p> <p><b>2-mavzu: O'zbekistonning tabiiy florasini va tarqalish areali</b></p> <p>O'zbekistonning joylashishi, tabiiy sharoiti, tabiati, rel'yefi, iqlimi. Dorivor o'simliklarning bioekologik xususiyatlari, hayotiy shakllari, tarqalishi, mintaqalar bo'yicha joylashishi va geografik bo'linishi. Tabiiy madaniy dorivor o'simliklarning bioekologik xususiyatlari.</p> <p><b>3-mavzu: Dorivor o'simliklarning bioekologik xususiyatlari</b></p> <p>O'zbekiston florasiga mansub dorivor o'simlik turlari. Dorivor o'simliklarning ekologik guruhlari. Tog', adir, cho'l, to'qay o'simliklari. O'simlik turlarining bioxilma-xillikdagi o'rni. Global ekologik muammolar. Orol dengizining o'simliklar qoplamiga ta'siri. Mintaqalar bo'yicha dorivor o'simliklarning ekologik sharoitlarga bog'liqligi.</p> <p><b>4-mavzu: Dorivor o'simliklarga abiotik, biotik, antropogen va agroekologik omillarning ta'siri</b></p> <p>Abiotik omillar ( iqlim, geologik, tuproq, orografik va gidrologik, yorug'lik, harorat, havo, namlik, shamol ). Biotik omillar ( fitogen omillar, zoogen omillar ). Antropogen omillar ( salbiy va ijobiy ). Agroekologik omillar. O'simliklar bioxilma-xilligini saqlash.</p> <p><b>5-mavzu: Cho'l zonasi dorivor o'simliklar qoplami va o'simliklar qoplamining almashtirishi (suksetsiya)</b></p> <p>Cho'l mintaqasining iqlim va tuproq sharoitlari. Respublikamiz cho'l zonolari. O'zbekistonning g'arbiy qismidagi Qizilqum cho'li, Amudaryo deltasining barcha maydonlari, Ustyurt tekisliklari hamda Kimmerikum, Qarshi va Surxon cho'llari. Pastki cho'l. Yuqori cho'l. Global ekologik muammolar. Barxanlar va ko'chma</p> |  |
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| <p>qumlar. Cho'l o'simliklari dunyosi Cho'l o'simliklari biologiyasi va ekologiyasi. O'simlik turlarining bioxilma-xillikdagi o'rni.</p> <p><b>6-mavzu: Adir zonasi dorivor o'simliklarning bioekologiyasi</b></p> <p>Adir poyasining xarakterli belgilari va rel'yefi. Adir mintaqasining tuproq va iqlimi sharoitlari, dengiz satxidan balandligi. O'simliklar qoplami. Pastki adir iqlimi va o'simlik dunyosi. Yuqori adir poyasining iqlimi va o'simlik dunyosi. Dorivor o'simliklarning biologiyasi va ekologiyasi.</p> <p><b>7-mavzu: Tog' zonasi dorivor o'simliklarning bioekologiyasi</b></p> <p>Tog' zonasi iqlimi va tuproq sharoitlari. O'simliklar dunyosi va xilma-xilligi. Pastki, o'rta va yuqori tog' zonasida o'sadigan dorivor o'simliklar biologiyasi va ekologiyasi</p> <p><b>8-mavzu: Yaylov zonasi dorivor o'simliklarning bioekologiyasi</b></p> <p>Respublikamizdagi yaylov poyasining maydonlari, iqlimi va tuproq sharoitlari, o'simliklar qoplami, o'simliklarni ekologik sharoitlarga ko'ra bo'linishi. Pastki (subalp) va yuqori (alp) yaylovlari dorivor o'simliklar biologiyasi va ekologiyasi</p> <p><b>9-mavzu: To'qay dorivor o'simliklarning bioekologiyasi</b></p> <p>O'zbekistonning ( to'qay) daryo bo'ylarida uchraydigan dorivor o'simliklar. To'qay zonasining iqlimi va tuproq sharoitlari. O'simlik dunyosi. Dorivor o'simlik turlari va tabiiy ko'payishi. Biologiyasi va ekologiyasi. Noyob turlar va ularni asrash usullari.</p> <p><b>10-mavzu: Madaniy dorivor o'simliklar bioekologiyasi</b></p> <p>Madaniy dorivor o'simlik turlari. Xalq xo'jaligidagi ahamiyati va ishlatilishi. Madaniy dorivor o'simliklarning biologiyasi va ekologiyasi hamda ko'paytirish usullari. Maqsad va vazifalari.</p> <p><b>11-mavzu: Intraduktsiya qilingan dorivor o'simliklar bioekologiyasi</b></p> <p>Intraduktsiyaning maqsad va vazifalari. Intraduktsiya qilingan dorivor o'simlik turlari. Bir, ikki va ko'p yillik dorivor o'simliklar. Xalq xo'jaligidagi ahamiyati va ishlatilishi. Intraduktentlarning biologiyasi va ekologiyasi. Ko'paytirish usullari va dastlabki agroteknikasi</p> <p><b>12-mavzu: Vitaminli dorivor va Efir moyli dorivor o'simliklar bioekologiyasi</b></p> <p>Vitaminlarning inson hayotidagi ahamiyati. Vitaminlar yetishmasligi oqibatlari va kasalliklari. O'zbekistonning vitaminli o'simlik turlari, biologiyasi va ekologiyasi. Ularning tarqalishi va xalq tabobatidagi ahamiyati. O'zbekistonda efir moyli o'simlik turi, turkumi va oilasi. Efir moyli o'simliklarning xalq xo'jaligidagi</p> |  |
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| <p>ahamiyati. Mahalliy xalq tabobatida ishlatiladigan dorivor efir moyli o'simliklar. Formaseftika va parfyumerya sanoatida ishlatiladigan dorivor o'simliklar efir moyli o'simliklar. Efir moyli dorivor o'simliklarning ayrim vakillari biologiyasi va ekologiyasi.</p> <p><b>13-mavzu: Dorivor o'simliklarni muxofaza qilish va ulardan oqilona foydalanish</b></p> <p>Dorivor o'simliklarni muhofaza qilish bo'yicha qonun va qarorlar. O'zbekiston florasida dorivor o'simliklarni kamayib ketish sabablari, ularni madaniylashtirish holati, O'zbekiston "Qizil Kitobi" ga kiritilgan dorivor o'simlik turlari. Dorivor o'simliklarni saqlab qolish va muhofaza qilish.</p> <p><b>14-mavzu: O'zbekiston davlat qo'riqxonalari, milliy bog'lari va bioxilma-xilligi</b></p> <p>O'zbekiston Respublikasi tabiatni muhofaza qilish idoralari to'g'risida ma'lumot. Davlat qo'riqxonalari. Davlat milliy bog'lari. Maqsad va vazifalari. Yo'qolib ketayotgan va qo'riqxonalarda saqlanayotgan dorivor o'simlik turlari. Tabiiy bioxilma-xillikni saqlash.</p> <p><b>15-mavzu: Ekologik omillarni o'simliklar dunyosiga ta'siri. Qizil kitobga kiritilgan dorivor o'simliklarni bioekologiyasi</b></p> <p>Dunyoda ekologiyaning o'zgarishi sababli o'simliklarga katta ta'sir ko'rsatmoqda. O'simlik dunyosi genofondi va bioxilma-xillikni saqlash ularni asrab qolish muammolari. Noyob va yo'qolib ketish arafasida turgan dorivor o'simliklarni asrab qolish va ularni kolleksiyalarida ko'paytirish, saqlab qolish va tabiatda yo'qolib ketish arafasida turgan dorivor o'simliklarni saqlab qolishning muammolari.</p> <p><b>III. Amaliy mashg'ulotlarni tashkil etish bo'yicha ko'rsatma va tavsiyalar</b></p> <ol style="list-style-type: none"> <li>1. Tabiiy dorivor o'simliklar turlarini biologiyasini o'rganish</li> <li>2. Dorivor o'simliklarni ekologiyasini o'rganish</li> <li>3. Ekologik omillarning dorivor o'simliklarga ta'sirini o'rganish</li> <li>4. Gidrofitt, gigrofitt, mezofitt, kserofitt, sukulent, sklerofitt dorivor o'simliklar turlarini o'rganish (lotincha, ruscha va maxalliy nomlari)</li> <li>5. Vitaminli o'simliklar biologiyasi va ekologiyasini o'rganish (Chakanda,</li> </ol> |  |
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| <p>Chilonjida, Yasnotka, Gazandao't, Yovvoyi piyoz, Iltuzum)</p> <ol style="list-style-type: none"> <li>6. Efir moyli dorivor o'simliklar biologiyasi va ekologiyasini o'rganish (Marmarak, Qalampiryalpiz, Qorazira)</li> <li>7. Alkolotidli dorivor o'simliklar biologiyasi va ekologiyasi (Qizilcha, Sho'rbuyo'n, Bangidevona, )</li> <li>8. Oshlovchi moddalar saqlovchi dorivor o'simliklar biologiyasi va ekologiyasini o'rganish (Rovoch,totim)</li> <li>9. Ildizpoyali dorivor o'simliklar biologiyasi va ekologiyasi (yalpiz, shirinmiya va b.q.)</li> <li>10. Zirovor dorivor o'simliklar biologiyasi (Kiyiko't, Limono't, Yalpiz, Zira)</li> <li>11. Murakkabguldoshlar oilasiga mansub dorivor o'simliklar biologiyasi (Dastarbosh, Qushqo'nmas, Artishok)</li> <li>12. Dukkakdoshlar oilasiga mansub o'simliklar biologiyasi-7 (Sebarga, qashqarbeda)</li> <li>13. Dorivor daraxt o'simliklarning bioekologik xususiyatlarini o'rganish</li> <li>14. Cho'l zonasida o'sadigan dorivor o'simliklarning bioekologik xususiyatlari o'rganish (SHo'radoshlar oilasi vakillari)</li> <li>15. Dorivor qoqio't (Taraxacum officinale Web.) o'simligining biologik va ekologik xususiyatlarini o'rganish</li> <li>16. Grex yong'og'i (Juglans regia L.) ning biologiyasini o'rganish</li> <li>17. Jo'ka (Tilia L.) o'simligining bioekologiyasini o'rganish</li> <li>18. Oddiy anjir ( Ficus carica L.) o'simligining biologik va ekologik xususiyatini o'rganish</li> <li>19. Oddiy anor (Punica granatum L.) o'simligining bioekologik xususiyatini aniqlash</li> <li>20. Butasimon amorfa (Amorpha fruticosa L.) o'simligining biologik va ekologik xususiyatlarini aniqlash.</li> <li>21. Zangori maymunjon (Rubus caesius) o'simliklarining biologik va ekologik xususiyatlarini aniqlash</li> </ol> |  |
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| 22. Malina ( Rubus idaeus L.) o'simliklarining biologik va ekologik xususiyatlarini aniqlash                         |
| 23. Oddiy o'rik ( Armeniaca vulgaris Lam) o'simliklarining biologik va ekologik xususiyatlarini aniqlash             |
| 24. Oshlovchi moddalar saqllovchi dorivor o'simliklar biologiyasi va ekologiyasini o'rganish (Rovoch,totim)          |
| 25. Zubtutum (Platango major L.) o'simligining biologik va ekologik xususiyatlarini aniqlash                         |
| 26. Sano (Cassia L.) o'simligining biologik va ekologik xususiyatlarini aniqlash.                                    |
| 27. Dorivor tinoqgul (Calendula officalanis) o'simligining biologik va ekologik xususiyatlarini aniqlash             |
| 28. Moychechak (Matricaria L.) o'simligining biologik va ekologik xususiyatlarini aniqlash                           |
| 29. O'zbekiston Respublikasi "Qizil kitobga kiritilgan dorivor o'simliklarning bioekologik xususiyatlarini o'rganish |
| <b>IV. Mustaqil talim uchun tavsiya etiladigan mavzular:</b>                                                         |
| 1. O'zbekiston Respublikasida o'simliklar olamini muxofaza qilish bo'yicha qonun va qarorlar                         |
| 2. Ekologik masalalar bo'yicha qonun va qarorlar                                                                     |
| 3. Bioxilma-xillikni asrash bo'yicha olib borilayotgan ishlar                                                        |
| 4. Zomin toglari dorivor o'simliklari bioekologiyasi                                                                 |
| 5. Cho'l zonasi dorivor o'simliklari bioekologiyasi                                                                  |
| 6. To'qay zonasi dorivor o'simliklari bioekologiyasi                                                                 |
| 7. Adir zonasi dorivor o'simliklari bioekologiyasi                                                                   |
| 8. Tog' hududida o'suvchi dorivor o'simliklari bioekologiyasi                                                        |
| 9. Xorazm vohasida tarqalgan dorivor o'simliklar bioekologiyasi                                                      |
| 10. Intraduktsiya qilingan dorivor o'simliklar biologiyasi va ekologiyasi                                            |

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| 11. Tropik va subtropik hududida o'suvchi dorivor o'simliklari bioekologiyasi                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 12. Begona o't sifatida o'suvchi dorivor o'simliklar. ( Respublikamiz misolida)                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 13. Xorazm vohasi sharoitida moslashtirilgan dorivor o'simliklar                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 14. Biologik xilma-xillikni saqlashda tabiiy ekotizimlarning ahamiyati.                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 15. O'zbekiston Respublikasining qo'riqxonalari.                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 16. Jayron ekomarkazi.                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 17. O'zbekiston "Qizil kitobiga" kiritilgan dorivor o'simliklar bo'yicha yangi qo'shimcha ma'lumotlar |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3.                                                                                                    | <p><b>V. Fan o'qitilishining natijalari (shakllanadigan kompetensiyalar)</b></p> <p>Fan bo'yicha talabalarning bilim, ko'nikma va malakalariga quyidagi talablar quyiladi. <i>Talaba:</i></p> <p>Dorivor o'simliklar ko'p o'sadigan joylarni va zaxirasini aniqlash.</p> <p>Tibbiyotda dorivor o'simliklarning tuproq unumdorligini saqlash va oshirish usullari, dorivor o'simliklarning o'sishi va rivojlanishi uchun qulay sharoit yaratish yo'llari; dorivor o'simliklarning biologik, geografik, ekologik guruhlari, kelib chiqishi, tarqalishi, bir yillik va ko'p yillik dorivor o'simliklardan dorivor sifatida uning yer ustki qismidan foydalanadigan bo'lsa uni ildizi bilan sug'irib olmaslik, ya'ni bu dorivor o'simlikni tabiyatda yo'q bo'lib ketishini oldini olish, amalga oshirish bo'yicha nazariy xamda amaliy xosil qilishga <i>bilishi va ularni foydalana olishi;</i></p> <ul style="list-style-type: none"> <li>- dorivor o'simliklar bioekologik xususiyatlarini organuvchi ulchovchi asbob-uskunalar bilan ishlash;</li> <li>- dorivor o'simliklarni madaniy xolda o'stirish tadbirlarini bilish <i>ko'nikmalariga ega bo'lishi;</i></li> <li>- dorivor o'simliklarni biologiyasi va ekologiyasini tahlil qila olish;</li> <li>- maxsus plantatsiyalar tashkil qilish;</li> <li>-dorivor o'simliklarni muxofaza qilish chora tadbirlari;</li> <li>- dorivor o'simliklar xom ashyolarini tayyorlash muddatlari to'g'risida <i>malakalarga ega bo'lishi kerak.</i></li> </ul> |
| 4.                                                                                                    | <p><b>VI. Ta'lim texnologiyalari va metodlari:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



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|    | <ul style="list-style-type: none"> <li>• ma'ruza;</li> <li>• interfaol keys-stadilar;</li> <li>• guruhlarda ishlash;</li> <li>• taqdimotlar qilish;</li> <li>• individual loyihalar;</li> <li>• jamoa bo'lib ishlash va himoya qilish uchun loyihalar.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. | <p><b>VII. Kreditlarni olish uchun talablar:</b></p> <p>Fanga oid nazariy va uslubiy tushunchalarni to'la o'zlashtirish, tahlil natijalarini to'g'ri aks ettira olish, o'rganilayotgan jarayonlar va tushunchalar haqida mustaqil mushohada yuritish va joriy, oralik nazorat shakllarida berilgan vazifa va topshiriqlarni bajarish, yakuniy nazorat bo'yicha yozma ish yoki test sinovlarini topshirish.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6. | <p><b>Asosiy adabiyotlar:</b></p> <ol style="list-style-type: none"> <li>1.Lama Y.C., Ghimire and Tomas Y. "Medical plants of dolepo: Amchic and Conservation. WWF Nepal Program.Kathmandu 2001</li> <li>2. Лекарственные растения . "Большая иллюстрированная энциклопедия" Т.А Ильина – М: Эксмо, 2014</li> <li>3. M.A. Jo'rayeva "Dorivor o'simliklar atlas" O'quv qo'llanma. Toshkent 2019</li> <li>4. S.X. Babadjanova "Dorivor o'simliklar floras va sistematikasi". O'quv qo'llanma. Toshkent. 2022.</li> <li>5. Haydarov Q.H., Hojamatov Q.H "O'zbekiston o'simliklari" Darslik. Toshkent 1976</li> </ol> <p><b>Qo'shimcha adabiyotlar</b></p> <ol style="list-style-type: none"> <li>6. Мирзиёев Ш.М. Буюк келажакимизни мард ва олижаноб халқимиз билан бирга кураимиз. Тошкент, Ўзбекистон нашриёти, 2017.</li> <li>7. Мирзиёев Ш.М. Қонун устуворлиги ва инсон манфаатларини таъминлаш-юрт тараққиёти ва халқ фаровонлигининг гарови. Тошкент, Ўзбекистон нашриёти, 2017.</li> <li>8. E.T. Berdiyev., M.X.Hakimova., G.B. Maxmudova "O'rmon dorivor o'simliklari". Toshkent 2016</li> <li>9. E.T.Berdiyev, E.T. Axmedov "Tabiiy dorivor o'simliklar" Toshkent 2018</li> </ol> <p><b>Intrnet saytlari</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://www.ziynet.uz">http://www.ziynet.uz</a></li> </ol> |

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|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <ol style="list-style-type: none"> <li>2. <a href="http://www.natlib.uz/uz/">http://www.natlib.uz/uz/</a></li> <li>3. <a href="http://www.lib.mn/">http://www.lib.mn/</a></li> <li>4. <a href="http://www.molbiol.ru">http://www.molbiol.ru</a></li> <li>5. <a href="http://www.nebi.nlm.nih.gov">http://www.nebi.nlm.nih.gov</a></li> </ol> |
| 7. | <p>Fan dasturi Urganch davlat universiteti O'quv-uslubiy Kengashining 2024 yildagi ____-sonli bayonnomasi bilan ma'qullangan.</p>                                                                                                                                                                                                            |
| 8. | <p><b>Fan modul uchun ma'sullar</b></p> <p>S.X.Bobojonova - UrDU, Biotexnologiya kafedrası dots. b.f.n.</p>                                                                                                                                                                                                                                  |
| 9. | <p><b>Taqrizchilar:</b></p> <p>N.U.Xamraev _____ <b>Xorazm Mamun akademiyasi etakchi ilmiy xodimi</b></p> <p>J.S.Doschanov <b>Xorazm Mamun akademiyasi katta ilmiy xodimi (PhD)</b></p>                                                                                                                                                      |