

agrarmul saqarTvelo

სამეცნიერო-საინჰურებო ჟურნალი №5, სექტემბერ-ოქტომბერი, 2010



saqarTvel os
momaval i
fermerebi



raTm aris
sofI is meurneoba
sTrateGi ul i
darGi?

Rmad gafxviereba
ni adagis damuSavebis
ual ternativo
teqnologija

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WORLD TECHNIC
სამეცნიერო
ცენტრი



uxvmosavl i ani qarTul i xorbl is j i Sebis saukeTeso Tesl i

LomTagorasagan

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#	j iSis dasaxel eba	re-produq- cia	Tesvis norma kg/ha	savaraudo mosaval i (tona-heqtarze)	potencial uri mosaval i (maqsi- maluri resursi) tona-heqtarze	kil ogra- mis fasi (l ari)	sadil e- ro fasi (l ari)	Seni Svna
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saWiroa Tu ara agronomi?

agronomis, agroqimikosis, mcenareTa dacvis special istis, mel ioratoris, veterinaris Tu sxva agrarul i profesisi is prestiJI qveyanaSi imdenad daeca, rom axal gazrdobas am profesiebiken gaxedvac arar unda. es Zal ian Camafiqrebel i ambavia, rac uaRresad negatiurad imoqmedebs qveynis samomavil o ganvi Tarebaze.

swirdeba Tu ara qveyanas agronomi, da saer Tod, sofi is meurneobis special isti? es marto ganaTI ebis saministros da mTavrobis sazrunavi ar aris. sazogadoebam unda gadawytos, ra urCevnia, TviTon moiwios TuraSaul is vaSI i Tu kanadidan Semotan os igi. Tu adgil obriv produqts ani Webs upiratesobas, maSin es saqme marto survil iT ver gakeTdeba, amas ganaTI ebul i agronomebi da sofi is meurneobis profesional i special istebi swirdeba.

wl evandel erovnul gamocdebze abiturientebis mcire nawiL mac rom ar moisurva, agrarul i profesiebi aerCia momaval i moRvawebis sferod, Zal ian cudia da Cveni sazogadoebis sij ansaReze, maincdaminc, kargs ar metyvel ebs.

sofi is meurneobaSi memkvidreobi Tobias, axal gazrda special istebis monacvl eobis procesis uwiyetobas gansakutreibul i mniSvnel oba aqvs. SeuZI ebel ia, qveyanam mTI ianad ucxoetidan Semotan il i produqtIT icxovros! Ziri Tadi produqtI mainc adgil ze unda iwarmoebodes. sxvagvarad misi usafrTxoeba myari verasodes gaxdeba. amitom, dRes, ise rogorc arasdros, saWiroa Tanamedrove teqnol ogiebis, teqnikis Seswavl a, danergva da sworad gamoyeneba. dRes dipl omatebsa da iuristebze metad qveyanas agronomebi, veterinarebi da sofi is meurneobis profesional i special istebi swirdeba, radgan sxva gza Zal ian bundovan perspektivas saxavs.

nomer Si wai ki TxavT:

04 – ratom aris sofi is meurneoba strategiul i dargi?



06 – saqar Tvel os momava-
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damuSavebis
ual ternativ
teqnol ogia



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mTebi getyvian, rac
mawuxebi da raic
mal aRebs



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urneobis ganvi Ta-
rebis perspekti
mimarlul eba



25 – TafI s damvrobis
mkurnal oba SeuZI ia
axal i agrarul i saqar Tvel o

ratom aris sofl is meurneoba strategiul i dargi?

dReIsaTvls aSkaraa,
rom saqar Tvel os
sofl is meurneobas
real url safr TxSe-
eqmna. adreul wl ebSl,
mi uxeda vad seriozul i
dabrkol ebIsa, sofl is
meurneobi s dargi ssa-
xel mwi fo sawarmoebi
gaweul danaxarj ebs
inazRaurebdnen da
mli Rebul i mogebi dan
mli Svnel ovnad av-
sebdnen saxel mwi fo
bluj ets. gl exur me-
urneobebs, faravdnen
raama Tu imkul turis
warmoebi s Tvls gaweul
xarj ebs, zedmeti pro-
duqcia bazarze gahqon-
daT da mosaxl eobac
xel mi sawvdom fasebSi
i Zenda mas.

amJamad suraTl mli Svne-
l ovnad Secvl II ia. so-
fel s daakl da m warmo-
ebel i -fizikuri Zal a,
Sromisunariani adamia-
nebi intensiurad to-
veben sofel s, sofl ad
darCenil i gl exoba da
wrii i fermerеби аma
Tu imkul turas awar-
moeben araeftian i
tegnol ogiebi T, daba-
l i ameqnizaci s done,
Zvel i tehnika uvargi-
sia, xol o Tanamedrove
tegnikis, Sxam-qimika-
tebis, sawavis, Tesl is
da sxva auci l ebel i
masal ebl s SeZena si Zvi-
ris gamo gaZnel ebul ia.
Sesabamisad bazarze
gaZvi rda sofl is meurneobi s produqcia, sa-
qar Tvel os mosaxl eoba
krizisul mdgomareo-
baSia.

zemoaRni Snul probl emebze da ma-
Ti daZl evi s gzebz gamoqveynebul ia
araerTi mosazreba da samecniero
naSromi, magram j erj erobi T saqme
ar i Zvris, probl emebi i zrdeba da sa-
qar Tvel os sofl is meurneoba Tanda-
Tanobi T funqci as kargavs, misi ekono-
miki kuri maCvenebl ebi SesamChevad
mcir deba. qveynis agrarul bazars
i pyrobs sazRvargareTis araekol o-
giuri, genmodificirebul i, dabal i
xarisxis, j anmrTel obisaTvis mavn-
ne produqcia. sofl is meurneobi s
probl emebze Jurnal „agrarul i sa-
qar Tvel os“ 2009 wl is #1 gamoqveyn-
da akademi kos nodar Wi Tanavas statia „sagangebo-istoriul i amocana“,
sadac dawvri l ebi Taa gaanal i zebul i
saqar Tvel os sofl is meurneoba Si
Seqmnii i probi emuri saki Txebi da
mocemul ia maTi daZl evi s mecnieru-
l i mosazrebebi. statiaSi naTqvamia,
rom amJamad, Cveni qveynis ekonomi ka-
Si Seqmnii i mdgomareobi s obiecturi
anal izis safuZvel ze agrarul i seq-
tori saxel mwi fo social -ekonomi-
kuri pol i tikkis prioriteta unda
gamoxaddes. unda Selqmns sofl is
da sofl is meurneobi s kompl eqsuri
ganvi Tarebis Sesabamisi material ur-
tekniki baza, samecniero-sakadro
potencial i da Sesabamisi organiza-
ciul -mmarTvel obi Ti strukturi.

ratom unda gamoxaddes sofl is meurneoba strategiul dargad?

Cven xSi rad vi meorebT – gadavar-
CinoT sofel i da qveyanac gadarCeba.
qveynis mraval sau kunovani istoria,
amas, marTI ac, adasturebs. mi uxeda-
vad mZime social -pol i tikkuri da ekono-
miki kuri pi roebi s, romel i c saqar-
Tvel os gamudmebi T eqmneboda (Si da
da gareomebi, stiqiuri katakl i zme-
bi, epi demuri avadmyofobebi da sxva)
qveyana yovel i ves uZl ebda, fexze
dgeboda da vi Tardeboda. maSindel
saqar Tvel os sofel i – kerZod gl e-
xi, iyo qveynis marCenal i Zal a, misi
Sromi T iq mneboda qveynis simdi dre,
omebi T rom verafers akl ebdnen, ga-

reSe mtrebi sofl ad vazs Cexavdnen,
raTa sofel i da esustebinaT da ami T
qveyana daemorCil ebinaT.

cxadia, msofl ios dRevandel ba-
zarze saqar Tvel o ver warsdgeba
manqanaTmSenebl obis, xel sawyoebi s,
sayofacxovrebo aparaturi s da sxva
tekniki dargebis produqciit. Cveni Ziri Tadi simdi dre sofel Si a.
msofl ioSi ganTqmul i qarTul i vazi
da Rvino, ekol ogiurad sufTa xor-
bal i da kartofil i, simindi, soi o
da l obio, citrusovani kul turebi,
keTil Sobil i dafna da Txil i, xesi-
l ovani da kenkrovani kul turebi da
ramdeni iseTi msofl ioSi defici-
turi kul turis CamoTvl a SeiZl eba,
rac Cvens qveyanaSi yovel gvari xe-
l ovnuri pi roebi s Seqmnis gareSe
modis, Tumca yvel a maTgans swi rdeba
movl a-patronoba, raTa Cveni sofl is
produqcia msofl io bazarze pro-
duqtul i gaxdes. swored ami tom un-
da gamoxaddes sofl is meurneoba
prioritetul dargad.

sofl is meurneobi s ganvi Tarebi s
erT-erT Ziri Tad faqtora, ra Tqma
unda, warmodgenil ia kadrebis sa-
ki Txi, vinai dan sofl is meurneoba Si
Seqmnii i arasasurvel i movl enebi s
daZl eva, sxva mli Svnel ovnan Ronis-
ZiebebTan erTad SesamZl ebel ia We-
maritad maRaL kval ificiuri da ara
formal urad „dipl omirebul i“ spe-
cial istebi s momzadebi T.

ra mdgomareoba am mxri i saqar T- vel os?

ukanasknel i wl ebis saqar Tvel os i
damkvidrda axal gazrdobis swrafva
e.w. „prestiJul i“ special obebi s da-
ufl ebisken, rogoricaa saer TaSori-
so urTierTobebi, ucxo enebi, kom-
piuterul i tehnol ogiebi da a.S. rac
Seexeba sofl is meurneobi s specia-
l obebi s, bol o periodSi mli Svnel ov-
nad Semcirda am mimarTul ebi T Ca-
ricxul student Taraodenoba, xol o
wl evandel i erovnul i gamocdebi s
Sedegebi s mixdeviT sofl is meurneobi s
Ziri Tadi special obebi s (agrono-

mi ul i, agrosainJinro, teqnol ogiebis da sxva) axal i kontigenti T Sevseba, Ti Tqmisi, nul ovani a.

Seqmnili i katastrofui i situaci i dan gamomdi na-re, erTi ramcxadia – saqarTvel os axal gazar dobas ar aqvs gaTvi Tcnobi ebul i, Cveni qveyni s ekonomi kaSi, Tu r amdenad di dia sofi is meurneobi swl illi i.

SaqarTvel o odi Tganve cnobili a, rogorc mi waT-moqmedebis mimarTul ebis qveyana. qveyni s ekonomi-ki s gaZi iereba Ziri Tadad damoki debul i a sofi is meurneobi s aRorZinebi sa da mis Semdgom ganvi Tare-baze. am probl emi s gadawyeta ki SeuZi ebel i a axal - gazar dobi s mondomebi s, maTi codni s da energi i s ga-mouyenebl ad.

rogoria sofi is meurneobi s kadrebi s momzadebi s real uri suraTi?

SaqarTvel oSi am mni Svnel ovan saqmes emsaxureba ori umaRI esi saswavl ebel i – saqarTvel os sasofi i o-sameurneo saxel mwif o universiteti (q. Tbilisi) da saqarTvel os subtropikuli i meurneobi s saxel mwif o universiteti (q. soxumi), romel i cdroebi T qal aq quTaissi funqci oni rebs. amis gar da moq-medebi s ramdenime arasaxel mwif o umaRI esi da pro-fesiul i saswavl ebel i, roml ebi c aseve amzadebi s sofi is meurneobi s special istebi s. samwuxar od unda iTqvas, rom sofi is meurneobi s special oba-ze Caricxul studentTa umravl esoba real urad ar aris dainteresbul i TavianiTi special obi T. aq i sini xSi rad sxvagan „CaWr i s“ Semdeg xvdebi an, Tavis dazRvevis mi zni T, raTa ar gaucdeT wel i. pirvel i kursis daxurvis Semdeg (ganaTi ebi s kanoni s Tanax-mad) gadadi an an cdil oben sxva fakul tetze gadas-vi s, ukeTes SemTxvevaSi Tavi dan abareben erovnul gamocdebi s da ewyobian maTTvi s sasurvel fakul - tetze. amgvarad, sofi is meurneobi s special obebze mosul i, isedac mcire kontigenti, ufr o metad mcirdeba. anal ogiuri mdgomareobaa umaRI es sas-wavl ebl ebSi gaxsnil profesiul fakul tetebe da profesiul centrebi s.

am saswavl ebl ebSi sofi is meurneobi s special obebze Caricxul i studentebi s mi zania ar dakargon wel i, Semdeg ki gadavidnen sxvagan, an gaagrZel on swavl a.e.w. „modur“ special obebze.

amgvarad, sofi is meurneobi s special obebi s Tvis gamoyofil i adgil ebi xSi rad Tavi danve vakanturi rCeba, an Tavisufi deba meore wl i dan; sabol ood sofi is meurneobi s special obebs ver amTavrebs Tavi dan Caricxul studentTa 10 %.

ra vi RonoT aRni Snul i probl emi s dasaZi evad?

1. Seqmnili i arasasurvel i situaci i dan gamosaval i unda veZeboT skol ebSi, rodesac formirdeba axal - gazar da Taobi s msolfi mxedvel oba skol ebSi moswavl eebTan unda tardebodes garkveul i ideol ogiuri muSaoba, SemoRebul i unda iqnes special uri sagani „saqarTvel os sofi is meurneoba“, roml is swavl i s mi zani moswavl eebi sadmi sofi is meurneobi s sxva-dasxva dargebi s gacnoba iqneba, maTi ekonomi kuri dasabuTeba, moswavl eebi unda darwmundnen sxva-

dasxva dargi s fermerul i meurneobi s ganvi Tarebi s aucil ebl obaSi, mis perspeqtivl obaSi. maT skol a-Si unda Camouyal ibdeT survil i cxovreba daukav-Siron mama-papur saqmes – sofi is meurneobas, rac samomavl od unda gaxdes maTi oj axis keTi l dReobi s safuZvel i.

2. saxel mwif o agrarul i sektori unda gamoacxa-dos prioritetul mimarTul ebad, umaRI es da pro-fesiul saswavl ebl ebSi agrarul i ganxri T swavl i s msurvel studentebi s unda miecET garkveul i stimu-l i (konkursgareSe Cari cxva, stipendiebi, praqtki-bebi sazRvargareT da a.s.).

unda aRdges sofi is meurneobi s dargi s samecnie-ro-sakadro potencial i, samwuxar od amJamad maT nak-ebi yuradReba eqcevAT. am profil i saswavl o-samecnie-ro dawesebul ebebi ver akmayofil eben kadrebi s momzadebi s aucil ebel moTxovnebs, maT ar gaaCni-aT material ur-teqni kuri baza saerTaSori so doni s samecnie-ro-kvl evi Ti muSaobi s Sesrul ebisTvis.

umaRI esma da profesiul ma saswavl ebl ebma unda SeZi on kval i fici rebul i agronomebi s, veteqimebi s, meqanizatorebi s, mel i oraci i s, teqnol ogiebi s da sxva special istebi s momzadeba, xol o saxel mwif o unda uzrunvel yos maTi stimul i reba da dasaqmeba.

3. saxel mwif o yuradReba unda mi aqci os da daex-maros sofi is meurneobi s mimarTul ebi s arasamTav-robo struqturebi s, agrogaerTianebebs, SezRudul i pasuxi smgebl obi s sazogadoebi s, agroganvi Tarebi s fondebi s da ssv. roml ebi c axorciel eben sofi is meurneobi s gansavi Tarebel Roni Zi ebebsa da pro-egtebi s, kadrebi s momzadebasa da kval i fikaci i s asa-maRI ebel programmebs.

stimul i undami eces i seT kompani ebi s, roml i s mi zani qveyanaSi Tanamedro ve sasofli o-sameurneo teqni ki sa da teqnol ogiebi s Semotana da maRaL i doni s agro-servisi s daner gva a. kargia, rom am mi mar Tebi T muSaoba dawyebul i a. amis naTel i magal i Tia kompania „msolfi i o teqni ka“, roml mac ukve gadadga praqtkul i nabi j i, sakuTari saksrebi T agrarul i universitetebi s



meqani zaci i s kaTedraze saswavl o audi toria aRWurva uaxl esi teqnol ogiebi T, sadac studentebs SeuZ- I iaT gaechnon da ai Tvis son Tanamedrove sasofl o-sameurneo aggregatebi . kompani a axdens meqani zatorebis kval ifikaci i s amaRI ebas, aCvevs maT Tanamedrove uaxl esi teqnikisa da aggregatebis gamoyenebas, periodul ad atarebs konsul tacia – semi narebs. kompania „agrarul i seqtoris kompaniebis asociaci asTan“ erTad gamoscems agrarul i dargis yovel Tvi ur samecniero-praktikul Jurnal s, roml is mizania gaa-Suqossofl is meurneobis probl emebi, maTi daZI evi s gzebi, meTodebi , siaxl eebi, ganvi Tarebis perspektivebi, daamuSaos axal i proeqtebi, wi nadadebebi , konkretul i programebi da am gzi T xel i Seuwyos saqar Tvel os sofl is meurneobis ganvi Tarebas.

amgvarad, saxel mwifom sofl is meurneobas unda miani Wos prioriteti, SeimuSaos stabil uri agrarul i politika, gansakuTrebul i yuradReba dauTmos kadrebis momzadebas sofl is meurneobi Tvis, sofl is axal gazrdobam ar unda datovos mSobl iuri kuTxe, unda daainteressos mama-papuri saqmi anobi T – sofl is meurneobi T, maRaI doneze unda ai Tvis os sofl is meurneobi s yvel a dargi, Sei swavl os Tanamedrove teqnol ogiebi da teqnikis eqspl oatacia; mxol od am gzi T Sei ZI eba sofl is meurneobi s ganvi Tareba da misi gadar Cena.

**nugzar ebanoi Ze
teqnikis mecnierebis doqtori,
profesori**



saqarTvelos momaval i fermerebi

organizaci a „saqarTvel os momaval i fermerebi“ kaxeTis erT-erT ul amazes sofel gavaziSi Sei qmna.

2000 wel s amerikis saxel mwifod departamentis axal gazrdul saqmeTa ganyofill ebi s xel mZRvanel i bob persiko da amerikis sael Cos sazogadobas Tan urTi erTobis departamentis xel mZRvanel i Seron

hanson din i kaxeTSi sofel gavazi s skol asac estumrnen.

skol i s direktoris, paata beriaSvi l i sa da moswavl eTa saqmi anma ganwyobam stumrebi imdenad moxibl a, rom i que gadawyvites, amerikis axal - gazrda fermerTa saqmi anobi s gacnobi s da gamocdil ebi s gasazi arebl ad gavazi s skol a amerikis romel i meskol asTan daekavSi rebi naT.

amerikis saxel mwifod departamentis axal gazrdul saqmeTa ganyofill eba am mimar Tebi T saerTaSoriso programebzemomuSave organizacias daukavSi rda da gavazi s skol is Taobaze informaci a miawoda. „vorl d i linki“ gaecno gavazi s skol i s saqmi-anobas da Tvi TonveSei rCakal i forni is Statis qal aq espartos skol a da 2001 wel s gavazel i moswavl eebi kal i forniaSi gaemgzavrnen. amas espartos skol is „amerikis momaval i fermerebis“ organizaci i s wevrebis gavaziSi stumroba mohyva. swored amerikel „momaval fermerTa“ stumrobam misca bi Zgi kaxeTSi „gavazi s momaval fermerTa“ organizaci i s“ daarsebas.

Semdeg movl enebi ki dev ufro aqturad ganvi Tarda. gavazi s momaval fermerTa aqturobam saqarTvel os sxva kuTxis skol ebic daainteressa da bevr i maTgani am organizaci aSi gawevrian da, ramac organizaci i s gafarToeba da saxel wodebis – „gavazi s momaval i fermerebis“ „saqarTvel os momaval - ma fermerebi T“ Secvl a gamoi wvia.

programa dRes ukve ramdenime sapil ote skol aSi aqturad mimidinareobs.

2006 wel s saqarTvel os estumra j orj iis Statis universitetis, agrarul i i liderobis, ganaTI evisa da komunikaciebis departamentis xel mZRvanel i rei hereni da „vorl d i linki“-i s presidenti kurtis Stucmani . gavaziSi stumrobis doqtorma herenma aRmoaCina, romisi wigni skol aSi bibl i oTekasi i naxeboda, roml i Tac aqauri maswavl ebl ebi da maswavl ebl ebi aqturad xel mZRvanel obdnen. es Cveul ebrivi faqti ar iyo. stumrebma gadawyvites, romi gi qarTul enaze eTargmnaT, yvel asTvis xel - misawdomi gaexadaT da rogorc



saxel mZRvanel o sapil ote skol ebi sTvis gadaecaT. 2007 wel s aRni Snul i saxel mZRvanel o qarTul ad gamoi ca da organi zaci i s wevr skol ebs dauri gida.

2008 wel s organi zacia „vorl d l inkma“ da j orj iis Statis universitetma saqarTvel os momaval i fermerebis organi zaci i gasaZI ierebl ad baTum-Si FFG-i s wevrebisaTvis pirvel i sazafxul o, l iderul i banaki gamarTa. banakSi sapil ote skol ebi s moswavl eebsa da maswavl ebl ebs treiningi ameriku- l i programma „fl eqsis“ warmomadgenl ebma, j orj iis Statis universitetis kursdam Tavrebul ebma da mowveul ma profesorebma Cautares.

dRes organizaciaSi „saqarTvel os momaval i fermerebi“ saqarTvel os sxvadasxva regioni s samocamde skol aa gawevis i anebul i, Tumca gaerTi anebis survili i ki dev bevr skol as aqvs.

organizacia mWidrod TanamSromi obs agraruli i seqtoris biznesis warmomadgenl ebTan da saqarTvel os sofl is meurneobis saministrosTan. misi mizania programmaSi monawil e skol ebi s radoenobis gazar da sofl is axal gazar dobiSaTvis axal i perspektivebi sa da winsvl i saTvis xel-Sewyoba.

sesi i verZaze



axal gazar dobas meti informacia da arCevanis saSual eba unda hqondes

asociacia „amerikis momaval i fermerebi“ – (Future Farmers of America, FFA), daaxl oebiT, 520 aTas wevrs aerTianebs da amerikis SeerTebul StatebSi savyovel Taod cnobil i organi zaciaa. i gi 1988 wel s Sei qmna da misi Ziri Tadi mizani axal gazar debSi individual uri da l ideris Tvis ebis Camoyal i bebaa. axal gazar debi aq sofl is meurneobis sxvadasxva dargebis muSao- bis specifikaSTan erTad sxvebz e zrunvis, publ iki s wi naSe gamosvi- l i s, konkretul i saki Txebis gaa- nal i zebisa da mnisvnel ovani ga- dawyvetil ebebis mi Rebis unar- Cvevebsac i Tvis eben.

pirvel ad, amerikis momaval fermerTa asociaci i Sesaxeb saqarTvel oSi, FFG-s (saqarTvel os momaval i fermerebi) banakSi gavige. manamde sofl is meurneobaze, Ti Tqmis araferi vicodi. es iyo CemTvis sababi, rom FFA-s wevri gamvxdariyavi da mi Rebul i gamocdill eba saqarTvel os momaval i fermerebiSTvis gameziare- bina.

Samwuxarod, Cvens qveyanaSi ar- ris pirobebi, rom axal gazar deb-

ma sakutari unari da SesaZI ebl obebi ga- moavl inon. rogorc Cans, sofl is meurneobaSi isini ver xedava- en perspektivas, rom warmatebis mi aRweva, karieris Seqmna aqac SeiZI eba, ris mTavari mizezic, Cemi azriT, qveyanaSi am mxriv informaciis mwave nakl ebobaa.

axal gazar debma ar iican, ra- xdeba am dargSi, rom sofl is meurneoba dRes msofl i oSi erT- erT yvel aze maRaL teqnol o- giurida meqanizebul i sferoa. amitom, vfiqrob, rom axal gazar debis informireba yvel aze saSuri saqmea, rom bavSvma sko- li danve meti gai gos da dainte- resdes agrarul i sferos SesaZI ebl obebi T.

vfiqrob, ami s mi Rwevis erT- erTi sauKeTeso meTodi saqarTvel os skol ebSi momaval fermerTa, l iderTa kl ubebis organi- zaci i daarsebaa, raTa skol is moswavl eebi Caeban adgil obriv Tu saerTaSori so proeqteb- Si, sxvadasxva Sej ibrebebSi, sa- intereso Roni SziebebSi. dRes Cveni Taobi s umetebas kargad ar aqvs gaazrebul i sad wavi des, riT dasaqmdes, ra akeTos. Tu axal gazar doba met informacias mi Rebs am sferos Sesaxeb, mer- mmuneT vi Tareba sasi keTod Se- i cvl eba.



nino nani taSvi i

rogor noviyanoT saSemodgomo xorbl is kargi mosaval i?!

*saSemodgomo xorbl is
movl a-moyvanis teqno-
l ogla warmoebaSi j ISIS
potenciuri Sesazi eb-
l obis maqsimal ur gamo-
yenebas / Tval i swinebs.
am i mi Rweva Sesazi ebe-
l lamaSin, roca yvel a
teqnol ogluri faqtori,
wi namorbedi SerCevi dan
mosavl is aRebi Tdam-
Tavrebui, droul ad
damaRai xarlxianad
srul deba. romel imes
mTI lanad, an nawiI obriv
Seusrul ebl obamni Sv-
nel ovan(uaryof / Tad)
zemoqmedebs sabol oo
Sedegze. aseve di di mni S-
vnel oba aqvs amindsc:
zomierl nal egebi, ma-
Ral i temperaturada
haerissaSual o Sefar-
debi Ti tenianobaxorb-
I IsmaRai daxarlxiani
mosavl is misaRebadxel -
sayrel pirobebs qmnis.
kargi daxarlxiani mo-
savali agroteqnika da
optimal uri kl imaturi
pirobebl serTobi lvi
moqmedeblis Sedegla. ase-
vedi di mni Svnel oba aqvs
wi namorbedi kul turis
SerCevas.*

wi namorbedi kul turebi

aRmosavl eT saqarTvel os urwyav farTobebze sagviano wi namorbedi kul turebis aRebis Semdeg ni adagi Zal ze gamomSral i rCeba. gansakuT-
rebi T Tu zafxul is meore naxevarSi
nal eqebi mcire iyo. am dros niadagis momzadeba gaZnel ebui ia, xorbal i gvi angamomSral ,bel tianxnul Si i Te-
seba, ris gamoc Tesl i gvi an, zamTar-
Si, an zamTris bol os aRmocendeba da
sustia. aseT sust naTess xSi rad qari
azianebs, an mTI lanad anadgurebs.,
rac ufro adre aTavisufi ebs wi namorbedi mindors, mi T ufro maral ia
niadagSi tenis da Sesati sebel i sak-
vebi nivTierebebis maragi. aseTi wi-
namorbedebia samarcvl e – parkosani
kul turebi, sasil ose simindi, mwva-
ne sakvebad gamosayenebel i simindi,
farTo mwkrivid naTesi (70X210sm.) samarcvl e simindi, erTwl iani parkos-
nebis da marcvl ovnebis (Svrianarevi
barda, an cer cvel a) narevi mwvane sak-
vebi, mraval wl iani parkosani bal axe-
bis kordi, aseve dasaSvebad Sei Zi eba
Cai Tval os saSemodgomo xorbl is or-
wel iwads zedi zed Tesva.

sarwyav mi webze saSemodgomo xorbl is
sasurvel i wi namorbedi a: samarcvl e si-
mindi (mokl e vegetaciis), sasil ose si-
mindi, bostneul -baRCeul i kul turebi,
mraval wl iani bal axebis kordi, sanaw-
verl o kul turebi, samarcvl e-parkos-
nebi (lobio, soia, muxudo).

ni adagis damuSaveba

saSemodgomo xorbl is aTvis ni adagi
mi si Tvis sebebi s, wi namorbedi kul -

turebis Tavi sebur ebebi s da nakveTi s
dasarevel i anebis gaTval i swinebi T
unda damuSavdes.

saSemodgomo xorbl is dasaTesad
wi namorbedi kul turis mosaval i
SemWi drovebul vadebSi unda ai Ros,
im varaudi T, rom ni adagi Tesvamde
10-15 dRiT adre mai nc damuSavdes.
aRmosavl eT saqarTvel os sawarmoo
special izaciis I,II, III, IV,V zonebSi
saSemodgomo xorbl is Tvis nasimindari
farTobi umj obesia jer mZime
meqni zmebi T damuSavdes, xol o Semdeg
wi nmxvnel i guTni T 22-25 sm. si Rrmeze
moixnas. aseve unda moxdes sasi l ose
nasi mindari s damuSaveba, magram unda
gavi Tval i swinot, rom am SemTvevaSi
mosavl is aRebi dan xorbl is Tesvamde
ufro meti dro rCeba da xnul is da-
sarevel i anebis SemTxvevaSi saWinoa
Tsvamde damatebi Ti erTi kul tiva-
ciis Catareba.

Tu niadagi suffaa da fesuriani
sarevel ebi cotaan, an sul ac ar aris,
umj obesia, ni adagi nakl eb si Rrmeze
(14-16 sm.) saoSi guTni T, zed mi dgmuli
i farcxi T damuSavdes. am dros mo-
savli is donis Seumcirebl ad i zogeba
material uri da Sromi Ti danaxarj e-
bi.

aseve Sei Zi eba damuSavdes namze-
sumziral i garekaxeTSi, agreTve si R-
naRisa da sagarj os rai onebis ukana
mxareSi.

nasi mindari da namzesumziral i
Tvis win unda damuSavdes xol od
diskoebiani farcxi T, zed mi bmul i
zigzag iT da ara TaTebiani kul tiva-
toriT, radgan kul tivatoris TaTe-

bi niadagis zedapirze amoyris niadagSi Caxnul mce-nareul narCenebs, rac xel s SeuSi is xorbl is xaris-xian Tesvas.

მრავალ ვლიანი ბაქების კორდის დამუსავება

kul turaTaswori morigeobis pirobebSi saSemod-gomo xorbal i iTeseba ori, an sami wl is sargebl obis kordze. aseTi kordi s niadagi gamkvriebul ia da Tu mas ar SevurcieT moxvnis optimal uri vada, xnul i uxarisxo-bel tiani gamodis. aseT SemTxvevaSi bal a-axis miszeda narCenebi da fesvTa sistemis di di na-wil i niadagis zedapirze rCeba, ar xdeba misi minera-lizacia da niadagis gamdi dreba humusi T da kordi Tavis dani Snul ebas kargavs. aRmosavl eT saqar Tve-l os sarwyav mi webze mraval wl iani bal axebs kordi 20 agvistodan 10 seqtembramde wi nmixvnel i guTni T 25-27 sm. si Rrmeze unda moi xnas. am vadaSi moxnul i kordze saSemodgomo xorbl is marcvl is mosaval i 4-5 c/ha. metia, vidre pirvel i oqtombridan 10 oqtombramde moxnul ze, xol o 1 noembridan 10 noembra-mde moxnul Tan Sedarebi T – 6-7 centneriT meti.

urwyav, nakl ebtenian adgil ebSi kordi pirvel i mo-TibvisTanave unda moi xnas. adremoxnul kordze bel -ti daSi as aswrebs, niadagSi teni da sakvebi meti rao-denobi T grovdeba, rac xel s uwyoobs xorbl is mosav-llianobis zrdas. magal iTad, optimal ur vadaSi moxnul kordze naTesi saSemodgomo xorbl is mosaval i saSual od heqtarze 43,8 centneria, xol o seqtemberSi moxnul ze – 34,8 centneri. kordi Tesvis wi na damuSa-veba unda ganxorciel des mZime di skoebiani farcxi T.

ნავვერალის დამუსავება

aRmosavl eT saqar Tvel ossawarmoo special izaci-i s I, II, III, IV, V, VI, VIII zonebSi, sadac saSemodgomo xorbal s saxnavi farTobebis 50-60%-ze meti ukavia, rekommendebul ia xorbl is or wel iwads zedized Tesva. nawveral i ixvneba wi naswari aCeCvis gareSe TavTavia-ni kul turis mosavl is aRebisTanave. srul si Rrmeze. sarevel is gamoCenisTanave tardeba kul tivacia (farcxi T). es operacia unda ganmeordes Tuki saSemodgomo xorbl is Tesvamde sarevel ebi isev aRmocendebeba. aseve naxevaraneul is wesi T unda damuSavdes samarcvl e parkosani kul turebi T dakavebul i mindori. mosavl is aRebisTanave moxnul nawveral ze xorbl is mosaval i 2-4 centneriT metia Tesvamde 20-22 dRiT adremoxnul Tan Sedarebi T.

Теслის მომზადება და თესვა

Tesl is SerCivas di di mni Svnel oba aqvs. unda dai-Tesos darai onebul i maRaL produqtul i, pirvel i kl asis da pirvel i kategoriis Tesl i. sokovani da-avadebebi sa da fesvi s idampl is wi naaRmdeg i s unda damuSavdes maRaL efeqtiani fungici di T. Sewamvl a unda Catardes wyl is suspenzi T, an Tesl i daten-andes (10 l. wyal i 1 tona Tesl ze), moebnes preparati da orive SemTxvevaSi kargad airios.

cnobil ia rom saSemodgomo xorbl is Tesvis vada danorma arsebi T gavl enas axdens, rogorc mosavl is

odenobaze, i se mis teqnol ogiur xarisxze. yvel aze maRaL i mosaval i da xarisxiani marcvl i, kargi fizikuri da teqnol ogiuri Tvisebebi T mi i Reba maSiN, roca Tesva optimal ur vadebSi, optimal uri normiT tardeba.

sagar Tvel os bunebrivi pirobebis mraval ferov-neba saSemodgomo xorbl is gansxvavebul vadebSi Tesvis saWi noebas ganapi robebs.

I, II da III zonis sarwyav mi webze Tesvis optimal uri vada pirvel i oqtombridan i wyeba da noembris dam-degs mTavrdeba. meore zoni s urwyav mi webze (gare kaxeTi) Tesva umj obesia 10 oqtombridan 1n noembra-mde Catardes. sawarmoo special izaci i s IV da V zonebis sarwyav da urwyav mi webze xorbal i iTeseba 20 seqtembridan 20 oqtombramde, special izaci i s VI da VII zonebis mTian nawil Si (wal ka, axal qal aqi) 20 agvistodan 15 seqtembramde, xol o Sedarebi T dabal nawil ze (dmanisi, adigeni, borj omi) 15 seqtembridan 15 oqtombramde. rac Seexeba Tesvis normebs, i gi 0,5 mil i oni dan 0,6 mil i onamde meryeobs.

saSemodgomo xorbl is Tesvis vadebi sa da normebi s amJamad moqmedi rekomendacia sakmaod xandazmul i a. i gi emyareba Zvel j i Sebze Catarebul gamokvl evebs, ami tom axal darai onebul i j i SebisTvis am maCvenebi ebis dadgena aucil ebel ia.

saSemodgomo xorbal i iTeseba mwkrivad da mobnevi T (mcire zomi s nakveTebze). arCeven mwkrivad Tesvis ramdenime saxes: Cveul ebriv mwkrivad (mwkrivTa-Soris 15 sm.), viwr o mwkrivad (mwkrivTaSoris 7,5 sm.) da j varedinad Tesvas. aqedan upiratesoba eni Weba viwr omwkrivad da j varedinad Tesvas, magram Tesvis am ori wesi dan, ukeTesi mainc viwr omwkrivad Tes-va, radgan j varedinad naTess gansaku Trebul i yu-radReba unda mieqces qarismieri erozi i s zonebSi, rogoricaa II da III zona – dedofl i swyatos, si Rna-Ris, garabnis, marneul i s, bol nisis, mcxeTis, sagarejos rai onebi.

Tesl is CaTesvis si Rrme niadagis konkretul i mdgomareobi skval obaze, 6-8 sm. fargl ebSi meryeobs.



zime meqani kuri Semadgeni obis da tenian ni adagebz-
ze Tesva Sedarebi Tzerel ed tardeba, xol o msubuq
damSral ni adagebzefro - Rrmad. zerel ed Tesvis
dros bartyobis naskvis zerel ed ganvi Tarebis pi-
robebSi, qarismieri eroziis dros, i gi SiSvl deba da
dabal i temperaturis dros i Rupeba. amis gardaqars
ni adagi dan mi aqvs xorbl is Tesl i da axl adaRmoce-
nebul i mcenareebi, rac ameCxerebs naTess, ris Sede-
gadac gadasaTesi xdeba farTobi, an si meCxris gamo
Zl ir sarevel i andeba da mosavl i anobas mkveTrad am-
ci rebs. ami tom qarismier eroziis zonebSi CavTesoT
TesvisTvis Cveul ebrivsi Rrmeze 1-2 santimetrze da
ufro Rrmad.

ni adagi s ganoyi ereba

dadgeni l ia, rom mineral uri sasuqi xorbl is mo-
savl i anobas zrdi s. gare kaxeTis zoni s aram yari te-
ni anobi s Savmi webze 12,3 centneriT, Sua da zemo qar-
TI is wabl a da tyi s yavi sfer mi webze 16,8 centneriT,
muxran-saguramos vaki s mdel os da tyi s yavisfer mi-
webze 18,8 centneriT, Sua da zemo qarTI is Zvel al -
vur karbonatul ni adagebze 15 centneriT daj avaxe-
TismiTis urwyav Savmi webze – 16,7 centneriT.

savar audio saSual o dozad unda mi vi Cni oT:

al aznis vel i sa da gare kaxeTis agrozonis Tvis – N₆₀-120₆₀-90K₆₀ – ammonium s gvarj il a 175-350 kg/ha; sammagi superfosfati 110-165 kg/ha; kalium s mari- i 150 kg/ha.

qvemo qar TL i s zonaSi: N₉₀₋₁₂₀ P₉₀-K₃₀ amoni umi s gvar - j il a 265-350 kg/ha; sammagi superf osf ati 165 kg/ha; kal i umi s maril i 75 kg/ha.

Sua da zemo qar TI i s agrozona Si N₆₀₋₁₅₀ P₆₀ K₄₅ amo-ni umi s gvarj i l a 265-440 kg/ha; sammagi superfosfa-ti 165 kg/ha; kal i umi s mar i l i 110 kg/ha.

muxrani s, sagur amos, vaki s, mdel osa da tyi s yavi s-feri ni adagebi sTvi s - N₉₀₋₁₂₀ P₆₀₋₉₀ K₄₅ amoni umi s gvar-j il a 265-350 kg/ha; sammagi superfosfati 110-165 kg/ha; kal ium i s mar ill i 110 kg/ha.

Samcxe-j avaxeTis Savmi webis Tvis N₉₀₋₁₂₀ P₉₀₋₁₂₀ K₆₀ amo-ni umi s gvarj il a 175-265 kg/ha; sammagi superfosfati 165-220 kg/ha; kaliumi s marili i 150 kg/ha.

marcvl eul is maRal i da xarisxiani mosavl is mi-
Rebis uzrunvel sayofad sasugis Setana Sei ZI eba
Tesyamde da Tesvis Semdedac (gamosakvebad) aRMo-

savl eT saqar Tvel os urwyav, mSral , gval vian, da teni Tnakl ebad uzrunvel yofil mi webze uke Tes Se-degs i ZI eva sami saxis sasqujis mTI iani dozis xvnis win, an uki dures SemTxvevaSi ni adagi s Tesvi swi na damuSavebis dros Setana. sarwyavad da teni T uz-runvel yofil pirobebSi mi zanSewonil ia fosfor-
kaliumani mineral uri sasqujebis mTI iani dozis da azotis dozis 1/3-is xvnis, an Tesvis win Setana, xol o azotis 2/3-is j ej il is gamosakvebad Setana aRerebis dawyebamde.

naTesi s movl a

a) f xvi e gamomSr al ni adagebSi Tesvi s Semdeg sa-
Semodgomo xorbl i s naTesi unda dai tkepnos sat-
kepnel ebi T. datkepna xel s uwyo bs tenis ni adagi s
zedapi rul fenebSi gadanacvl ebas, rac aqcar ebs mis
aRmocenebas, uzr unvel yofs mis si Tanabres da saSe-
modgomo bar tyobas, agreTve gamori cxavs ni adagi s
daj domas, ris Selegad umj obesdeba gamozamTrebi s
pi robebi .

b) sarevel ebi sgan naTesebis dacvis RonisziebaTa
SemuSavebis dros, uwinares yovl i sa, mxedvel obaSi
unda mi vi RoT, rom susti dasarevel ianebis SemTxve-
vaSi saheqtaro mosavl ianoba mci rdeba 6-8%-iT, xo-
l o ZI ieri dasarevel ianebisas 25-30%-iT da metad.
saSemodgomo xorbl is naTesebSi sarevel ebi s wina-
aRmdeg sabrZol vel ad udna gamovi yenoT herbi ci di
, l entemuri -d" 11 /a-ze, romel sac naTesis fesvga-
reSe gamokvebis mi zni T unda daematos mikroel emen-
tebis Semcvel i sasuqi „kristal oni" 21 /a-ze, gax-
snili 210-300 l i tr wyal Si. Sesxureba unda moxdes
hartvobis fazaSi

g) saSemodgomoxorbl isj ej il i gazaFxul ze Sei Z-
I eba dai farcxos, ris Sedegad iSI eba ni adagi s qer-
qi, ispoba axl adaRmocenebul i sarevel ebi, mcenares
scil deba gamxmar i nawil ebi, mcirdeba ni adagi dan
wyl is aorTql eba da mcenares eqmneba normal uri
zrda-ganvi Tarебi s pi robebi. RonisZieba tardeba im
dros, roca ni adagi kargad fxvierdeba. ar izil eba
zedmeti tenis gamo. farcxva xorbl is aRmonacenis
nakl ebad dazi anebis mi zni T tardeba msubuqi far-
cxit, dabal siCqareze. susti (or-samfOTI iani) da
amoCril i mcenareebiani naTesebi ar ifarcxeba, aseT
SemTxveyaSi naTess tkeppian

d) sarwyavi mi waTmoqmedebris praqti kaSi gamoi yene-
barwyvis sami Ziri Tadi saxe: zedapirul i, dawvimebi T
da qveniadaguri. zedapirul i rwyvis dros ni adagi
teni andeba mosarwyavi far Tobi s zedapirze Tvi Tdi-
nebi T ganawi | ebul i wyl i s ni adaqSi CaJonyi T.

zedapirul i rwyva iyofa or j gufad: rwyva vertikal uri fil traci iT – sarwyavi wyal i nawi l deba sarwyavi moednis zedapir ze mTl i an fenad da ni adag-
Si vrcel deba vertikal uri mimarTul ebi T. rwyva moRvarvi T, rwyva mTl i ani datborebi T – es wesi unda gamovi yenoT mxol od viwromwkrivian naTesebSi da msubugi megani kuri Semadgenl obis ni adagebze.

rwyvis meore j gufs miekuTvneba rwyva horizontal uri fil traciIT, anu gaJonviT-sarwyavi wyal i nawiI deba wi naswar momzadebul sarwyav kyl ebSi da



ni adagSi vertikal urad Casul i wyal i vrcel deba yvel a mimarTul ebi T ni adagi s kapi l arebis saSual e- bi T. es wesi unda gamovi yenoT Ziri Tadad saSual o da mZime meqani kuri Semadgenl obis ni adagebze far To mwkrivi an naTesebSi.

aRmosavl eT saqrTvel os I, II, III, V zonebSi, sarwyav mi webze saSemodgomo xorbl is droul i da Tanabari aRmonacenis mi saRebad daTesvi s Tanave morwyvis garda, saWi roa ki dev er Ti, an or i savegetacio rwyva; pi rvel i aRerebis fazaSi, xol o meore daTavTaveba- yavil obis, an marcvl is gavsebi s dros. rwyvis kal endarul i vada unda Sei rCes ni adagi s teni anobi s mi xedvi T; saxel dobr, roca ni adagi s 0,5 sm fenaSi i gi dava zRvrul i (mindvrul i) tentevadobi s 70-80%-mde.

sarwyavi normis zoma zedapirul i rwyvis dros yve- l a kul turisaTvis, garda bostneul i sa, ni adaguri da kl imaturi pirobebis mi xedvi T, Seadgens 600-800 m³/ha-ze, dawvimebi T rwyvis SemTxvevaSi ki 450-500 m³/ ha-ze. rwyvis normebi bostneul i kul turebisTvis Sedarebi T dabal ia da zedapirul i rwyvis ar aRe- mateba 500-600 m³-s, xol o dawvimebis 300 m³/ha-ze.

mosavl is aReba

danakar gebi s Semci rebi s da marcvl eul i xarisxi s amarI ebis mi zni T swor ad unda gani sazRvrrossimwi f is faza. mosavl i asaRebi kombai nebi kargad unda dare- gul i rdes. gansakuTrebi T mni Svnsl ovani a mosvl i s



aRebi sas kombai nis moZraobis optimal uri siCqaris SerCeva. mosaval i unda ai Ros SemWi drovebul vadeb- Si. aRebul i xorbal i dauyovnebl iv unda gai wmi ndos mi nar evebi sgan sani avebel da marcvl i s sawmend manqa- naze da dabi navdes dezinfi cirebul sawyobSi.

**zaur j ul uxiZe
sofi /smeurneobis mecnierebaTa doqtori**

რვენი ფიზიკური

marcvl eul Ta daavadebibi da brZol is RonisZiebibi

xorbl is foTI is (mura) Janga



daavadeba far Tod aris gavr- cel ebul i mexorbl eobis yvel a zonaSi. daavadebisas TavTavSi marcvl ebis raodenoba da xarisxi mcirdeba. zaral ma Sesazl oa 15- 30% Seadginos.

simptomebi da ganvi Tareba: foTI is zedapirze vi Tardeba mcirezomis, momrgval o, mura fe- riscal keul i meWeWebi, roml ebic didi raodenobi T moyvi Tal o-ya-

visfer sporebs Seicavs. infeqcia Ziri Tadad foTI is firfit is zeda mxares vi Tardeba, iSviaTad - foTI is xal Taze da Reroze.

daavadeba swrafad vi Tardeba wveTovani tenis da optimal uri temperaturis (+15-20°C) pirobebi- Si. daavadebis ganvi Tarebas xel s uwyoobsimRebiani j iSebis moyvana, winawel s arsebul i maRal i infeq- ciuri foni, zafxul Si Zirnayar marcvl ze sporebis sicocxl i sunarianobis maqsimal uri Senar- Cuneba. xel sayrel i kl imaturi pi- robebi Semodgomasa da zamTarSi, Tbil i da teniani gazafxul i.

xorbl is Reros Janga

Reros Janga aavadebs xorbal s, qers, Svrias, llvavs, tritikal es da zogiert vel ur bal axs. hyavs Su- maval i maspinzel i (kowaxuri).

simptomebi da ganvi Tareba: xor- bl is foTI is orive mxares, Rero-

sa da TavTavebze vi Tardeba odnav mogrzo, muqi mowi Tal o-yavis- feri meWeWebi, ufro didi zomis vidre foTI is Jangas dros. susti infeqciis meWeWebi gafantul i erTeul ia, xol o Zl ieri daavade- bisas – Serwymul i. Tavdapi rve- l ad meWeWebi rombisebri formis i aqebis saxi T warmoi qmneba, xol o Semdeg meWeWebi Signi T warmoSobi- l i sporebi foTI is epidermiss arRvevs.

Reros Janga kargad vi Tardeba Tbil i da teniani kl imatis pi-



robebSi. 15-30°C temperatura da maRaI i tenianoba xel s uwyobs daavadebis ganvi Tarebas. Reros Janga ganvi Tarebis sagazafxul os stadias kowaxurze gadis. Semdeg sporebi aavadebs xorbal s. daavadebas axasiaTebis kerebis saxi T gavrcel eba.

xorbl is yvi Tel i Janga



yvi Tel i Janga aavadebs xorbal s, qers, llvavs.

simptomebi da ganvi Tareba: yvi Tel i feris wvrii i meWeWebi erTrigadaaganl agebul i foTI is firfitaze da garegnul ad foToI i daxazul ia. meWeWebi foTI is qsovil idan amoizrdeba. Zl ieri infeqciis mralval i paral el uri xazi erTmaneTs erwymis. meWeWebi, garda foTI isa, TavTavis kil ebzec gvxvdeba.

yvi Tel i Janga gamomwvevi so-ko sigril is moyvarul ia. kargad vi Tardeba maRaI i tenianobisa da SedarebiT dabal i optimal ur-ri temperaturis (10-15°C) dros, yvi Tel i Janga ufro metad mTian da gril adgil ebSi a gavrcel ebu-ll i. xSirad yvi Tel i da mura Janga xorbal s erTdrooul ad aavadebs. amdroz aral i bevradufromniS-vel ovania.

JangebTan brZol is RonisZi-ebibi: marcvl ovanTa JangasTan brZol is umniSnel ovanesi meTo-dia gamZl e j iSebis kul tivireba. aucil ebel ia agroteqnikuri, meqani kuri da higienuri Ronis-Ziebis droul ad da normatiul i moTxovnebis dacvi T Catareba:

- sarevel amcenareebis, rogorc infeqciis wyaros mospoba nakveT-ze;

- mosavl is narcenebis mindvri-dan gatana, Caxvna da ganadgureba;

- Sual eduri patron - mcenareebis mospoba;

Zl ieri daavadebis dros erTaderTi efeqtiani saSual eba fungici debis gamoyeneba. fungici-debi T bail etonis, al tosuperis, til ti's gamoyeneba unda daiwyos Jangas pirvel i meWeWebis gamoCen-i Tanave.

marcvl ovanTa nacari

marcvl ovanTa nacari sakmaod gavrcel ebul ia, ufro xSirad ma-Ral mTian adgil ebSi. aavadebs marcvl ovnebis umTavres warmo-madgeni ebs: xorbal s, qers, Svrias da sxva. nacarma Sesazl oa gamoi-wvios mosavl is mniSnel ovani danakargebi, Tu mcenare ganvi Tarebis adreul fazasi daavadda.

simptomebi da ganvi Tareba: foTI is firfitaze, Rerosa da TavTavze Tavdapi rvel adCndebamoTeTro, qsel ismagvari naifq, romel ic



Semdgom nacrisferdeba. I aqebis Zl ieri ganvi Tarebis nacrisferi qeCi sebri naifq mTl i anad faravs foToI s, romel ic advil ad, mci-reddi Sexebi Tacmcirdeba.

daavadebis Tvis xel sayrel ia +15-22°C temperatura, RrUBL iani amindi da Zal ian maRaI i tenianoba 60-100% 30°C-is zevi T daavadebis ganvi Tareba ferxdeba.



brZol is RonisZi-ebibi: agro-teqnikuri RonisZi-ebibis dacva, gamar TI ebul ia fungici debis (al to superi, til ti, reqs dou, bail etoni) Sesureba daavadebis dasawyissi. ekol ogiurad gamar TI ebul i meTodi nacrisadmi gamZl ej iSebis kul tivireba.



xorbl is magari

(Cveul ebrivi) gudafSuta simptomebi da ganvi Tareba: magari gudafSuta aavadebs xorbl is TavTavs, ris gamoc mas mkveTrad mol urj o-momwano feri aqvs, xo-lo TavTavis kil ebi da fxebi gafarCxul ia. daavadebul i TavTavi msuquja da amis gamo sworad dgas. rZisebri simwifis fazasi daavadebul i TavTunebis gasresisas „rZis” nacvl ad myral i monacrisfro si Txe gamoiyofa. srul i simwifis dadgomisas j ansaRi da daavadebul i TavTavebis Seferi-loba erTmaneTisgan Ti Tqmis ar gansxavdeba. Tumca, daavadebul TavTavSi marcvl is nacvl ad ya-l ibdeba gudafSutas Savi feris magari, oval uri, wvrii i sporebi T savse topakebi. es topakebi advil ad iWyl i teba da myral suns gamoscems.

mosavl is aRebis dros, gansakuTrebiT ki, cexvis processi, gudafSutas e.w. topakebi advil ad skdeba da gafantul i sporebi xvdeba j ansaRi marcvl is zedapirze. marcvl Tan erTad sporebi xvdeba niadagSi, sai danac mcenaris daavadeba Sesazl ebel ia, Tu mosavl is aRebi dan xel axal Tesvamde Sual edi 3 kviras ar aRemateba. soko vrcel deba foTI ebSi, Rerosa da TavTaveb-Si. marcvl is formebis procesis marcvl ebi adgil s sporebis Savi masa i kavebs.

daavadebis ganvi Tarebis sauken-Teso pirobibia; 40-60% fardobi-Ti tenianoba da 5-10°C temperatura. saSemodgomoxorbl is gvin da sagazafxul o xorbl is Zal ian adre daTesis SemTxvevaSi mosal odnel ia magari gudafSutas Zl ieri foni.

sagartvel os fitopatol ogis instituti

aRniSnul i prob lemisaRmosafx-
vrel ad saWiroa konkurentul i
programebis damuSaveba da maTi
pragtikul i ganxorciel eba. sof-
l is meurneobaSi upirvel es amo-
canas warmoadgens Tanamedrove,
resursdamzogi teqnol ogieebis
danergva da sasofl o-sameurneo
producciis mwarmoebl ebi s auci-
l ebel i resursebi Tuzrunvel yo-
fa. aseTi midgoma xel s Seuwyobs
agrobi znesi s ganvi Tarebas da axa-
l i samuSao adqil ebi s Seqmnas.

sasofl o-sameurneo pro
duqciis warmoebis zrdis
ori gza arsebobs: in-
tensiuri da eost-
ensiuri. inten-
siuri gul -
isxmobis

arsebul i saSual ebebis
srul yofas, xol o eqstensi-
uri - damatebi Ti resursebis
(niadagis, adami anuri, materia-
luri da ssv.) amoqmedebas. saqar-
Tvel oSi radganac daumuSavebel i
farTobebi bevria (ukanasknel i
monacemebi T i gi 166 aTas heqtars
aWarbebs), sasofl o-sameurneo
produksiis warmoebis zrda eqs-
tensiuri gzi Tac aris SesaZI ebe-
l i, Tumca unda gavi Tval i swinoT,
rom aseT gzas yovel Tvis CixSi
SevyavarT, radgan am dros ro-
gorc wesi, warmoeba ar ixveweba
da ar vi Tardeba, ar inergeba Ta-
namedrove teqnol ogiebi da Sesab-
mamisad mi Rebul i produqcia gan-
vi Tarebul i teqnol ogiebis pi-
roebesSi warmoebul produqcias
konkurencias ver uwevs. ami tomac
warmoebis intensiuri, anu axal i
resurstdamzogi teqnol ogiebis

danergvis gziT gazrda ufro
met efegts iZI eva.

saqar Tvel oSi axal i
resursdamzogi teqn-
ol ogiebis damuSa-
veba da danergva
unda moxdes
msofi lo .

samecni e-
ro-teqnikur
progresze day-
rdnobiT, qveynis
bunebriv-kl imaturi,
ni adagobriv-rel iefuri
da regional i Tavisebure-
bebi s gaTval i swinebiT. aseve,
Zal zed mni Svnel ovania qveyanaSi
am mimar Tebi T Catarebul i kvl e-
vi Ti samuSaoebi s Sedegebi s gaTva-
I i swinebac.

resurstdamzogi teqnol ogie-
biT sasofl o-sameurneo produq-
ciis warmoeba iTval i swinebs sa-
sofl o-sameurneo kul turebis
mosavl i anobis Seumcirebl ad,
tradiciul i teqnol ogiebis (ris
Sedegadac yovel wl i urad izrde-
ba degradirebul i savargul ebi
farTobi) uaryofi-
Ti gavl enis minimu-
mamde dayvanas. ase-
Ti teqnol ogiebi
SesaZI ebel s xdis
Semcir des qarismi-
eri da wyl ismieri
eroziul i movl ene-
bi, racional urad
gamovi yenoT sasof-
l o-sameurneo sa-
vargul ebi, qimiuri
saSual ebebi, raTa
aRdges ekol ogi-
uri wonasworoba,
qafxvierdes dat-

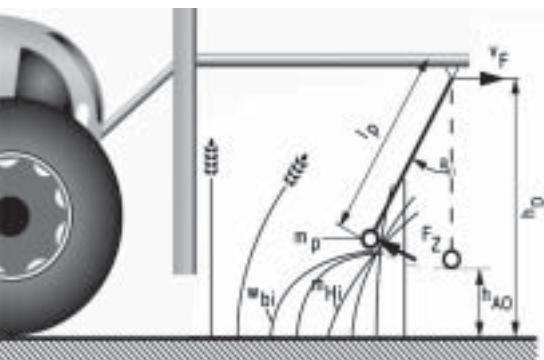
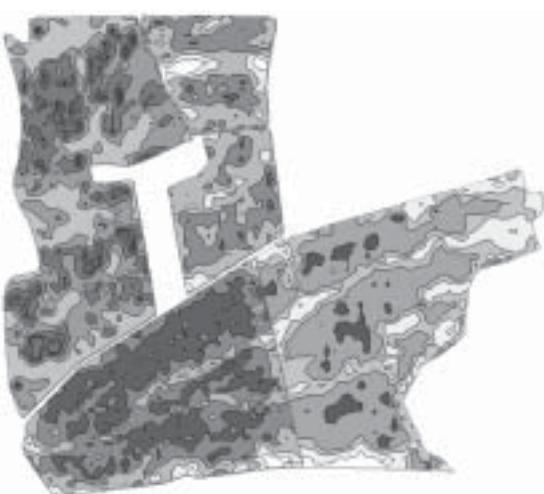
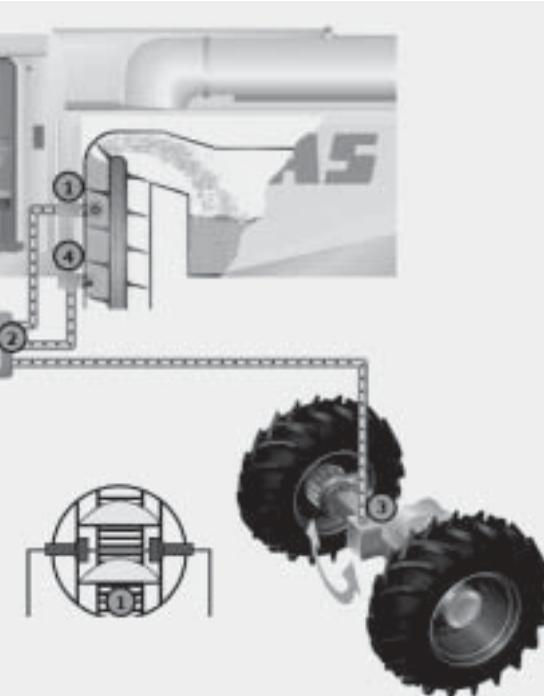


kepnili fene-
bi, gaumj obesdes
niadagis Tvi sebebi,
minimamde Semci rdes
awwavis da energiis sxva
roebis nedl eul is, masa-
wyli is, haeris da sxva re-
s gamoyeneba.
sdamzogi teqnal ogi is
i racional urim mar Tu-
tti miwaTmogamedebaa.

ra aris zusti mi waTmoamedeba?

zusti miwaTmoqmedeba warmo-
adgens naTesi farTobebis pro-
duqtius obis marTvls sistemas,
cal keul i farTobebis l okal uri
Tavi sebureebabis gaTval i swi nebi T.
sxva si tyvebi T zusti miwaTmoqme-
deba sameurneo da bunebrivi re-
sursebis ekonomi is fonze, saSua-
l ebas gvaZI evs naTesi farTobebis
Ti Toeul i kvadratul i metridan
mi vi RoT maqsimal uri mogeba. amis-
Tvls aucil elbel ia bortkompi ute-
rit marTvadi sasofl o-sameur-
neo teqni ka, romel ic aRwurvil ia
mindvris araer Tgvar ovnebis gan-
msazRvrel i xel sawyoebi T, mosav-
l i anobis avtomaturi aRmricxve-





I i sistemebiT, Sesatani nivTie-rebebis (sasuqebi, Sxam-qimikatebi, wyal i da a.S) madozirebel i zusti sistemi T, aggregatis adgil mdeba-reobis ganmsazRvrel i zusti xel - sawyoebi T da kompiuterul i programebi T monacemebis asaxvisa da anal i zi sTvis.

zusti miwaTmoqmedebis teqno- l ogia adgens niadagis agroqimi- ur Semadgenl obas da sasuqs amis mi xedvi T anawi l ebs.

zusti miwaTmoqmedebis teqno- l ogia pi robi Tad Sei ZI eba 3 etapad davyoT: monacemebis aReba; monacemebis anal i zi, gadawyveti- l ebs mi Reba da operaciebis Ses- rul eba.

monacemebis aReba mosavl iano- bis rukis Sedgenas, mcenaris ve- getaciur procesebze informaci- is Segrovebas, niadagis sinj ebs aRebas, aerofoto gadaRebas da sXV operaciebis Catarebas i Tval- i swi nebs.

mosavl ianobis rukebis Sedgena special uri mowyobil obebi T aR-Wurvil i kombainebi T xorciel deba.

nakveTSi kombainis adgil mdeba-reobas GPS mimRebi afi qsi rebs. mi- Ti Tebul koordinatze kombainis mier aRebul i mosaval i, tenianoba da kombainis daxriskuTxe izomeba 1-4-2 sensorebi T, romel ic el eqt- ronul modul Si avtomaturad ad- gens mosavl ianobis rukas.

mosavl ianobis rukebi naTel warmodgenas qmnis nakveTSi niadagis mdgomareobaze. Sesabami sad gani sazRvreba nakveTi is koor- dinatebi, sai danac saWiroa sinj ebi s aReba, romel ic xorciel deba manqanaze damontaJebul i GPS mim- Rebi mowyobil obebi T. wi naswar mocemul koordinatze niadagis sinj ebi avtomaturad i Reba, i nom- reba, anal i zdeba da xdeba ni adagi s rukis Sedgena.

nakveTSi qimiuri saSual ebebis di ferenci rebul ad Setanis mizi- ni T gamoi yeneba Sedarebi T marti- vi mowyobil oba Crop-metter, romel i sac ar swi rdeba wi naswar Sedge- ni i rukebi.

traktorze damontaJebul i sensori afi qsi rebs mcenaris si- maRI es, mis bi ol ogi ur mdgomare- obas, warmodgenas gvi qmnis moce- mul wertil Si niadagis nayofi-

erebaze. sensoris mier aRebul i informacia aRiri cxeba traqtori bortkompiuterSi, romel ic avtomaturad gansazRvrafs nakve- Ti yovel wertil Si qimiuri sa- Sual ebebis Setanis dozas.

monacemebis aRebisa da opera- ciebis Sesrul ebs dros zusti miwaTmoqmedeba kosmosuri teqno- l ogi i meSveobi T aggregatebis paral el uri marTvis sistemebis ga- moyenebas i Tval i swi nebs, roml is efeqti anoba SemdegSi gamoixateba:

- teqnol ogiuri operaciebis Sesrul eba Rami T da cudi mxedve- l obis drosac i seTive si zusti Taa Sesazi ebel i – rogorc dRisi T;

- paral el uri marTvis sistemebi T teqnol ogiuri operaciebis maRaL i si zusti T Catareba Sesazi ebel ia ufro did si Cqareebze, rac aggregatis mwarmoebl obas 13- 20%-iT zrdis;

- naTesebis damuSavebis dros xarvezebis (11%-iani gadafarvebi da 4%-iani daumuSavebel i farTo- bebi) Tavi dan acil eba;

- paral el uri marTvis Sedegad qimiuri saSual ebebis da sawav- sapoxi masal ebs ekonomia (ha-ze 20%-mde);

- Sesrul ebul operaciebz sa- muSa droisa da produuciis Tvi TRi rebul ebs Semcireba.

zusti miwaTmoqmedebis teqno- l ogi i ef eqtianoba aRiar ebul ia mraval i qveynis mier. misi danerg- vis intensivoba mTel msofi i Os. yovel wl i urad matul obs. saqar- Tvel oSi am teqnol ogi i danergva saSual ebas mogvcems racional u- rad gamovi yenoT qimiuri saSua- l ebebi da niadagis nayofiereba gavzardoT minimal uri danaxarj e- bi T. garda ami sa zusti miwaTmoq- medebis teqnol ogi a xel s Segvi wyobs ufro ef eqtianad gamovi yenoT man- qana-traqtora parki. Tumca aqve unda iTqvas, rom saqar Tvel oSi am teqnol ogi i danergvas, auci- l ebl ad win unda uswrebedes samec- niero kvl evebi, raTa Teoriul i kvl evi s Sedegad damtki cdes per- spektivaSi misi xangrZI i vi gamoye- nebis ef eqtianoba.

zviad bregvaze
Sps „msofi i o teqnikas“
damfuZnebel i

ukanasknel periodSi saqar Tvel oSi Seqmni I kl imaturi pirobebis da gval vebis Sedegad saxnav-saTesi far Tobebis ume-tesi nawi I agrovadebSi ar muSavdeba, an saer Tod damuSavebis gareSe rCe-ba, rac ganpi robebul i nladagebis gamkvri vebi T da maTi damuSavebis Tvis saWiro mZI avri teqniklis uqoni obi T. dReIsaTvis sofi ismeurneobaSi Seqmni I kri tiku I si tuaciebis daZI evis mizni TsaWiroa koncentrirebul da gamoyenebul i qnas msofi los mowinave agrarul i qveynebis samecniero-teqnikuri mi Rwevebi da maTmier gamocdil I Tanamedrove teqnol ogl-ebi da teqnika.

cnobil ia, rom saqar Tve-los sxvadasxva regi onebSi saxnav-saTesi mi webi, fizi-ko-megani kuri da bloqimuri Tvis sebebi TmkevTrad gansxvavdeblan er Tmane-Tlsgan. bunebriv-kl imaturi pirobebis danladagebis mraaval ferovnebis mixedvi T, sasofl o-sameurneo traqtorebs da man-qana-laraRebs waeyeneba T gansakuTreibul i moTxov-nebl. sasofl o-sameurneo

teqnikls sefektianobis amaRI ebisaTvis, pirvel rigSi, saWiroamqanebis teqnol ogluri Sesazl eb-lobebis ga far Toeba, rac Sesazl ebel lacal keul I samuSao meqani zmebis konstruciul i srul yofiT, maTi racional urlgan-lagebl T, da aggregatebl T, manqanis modebis ganisa da aggregat i samuSao si Cqareebis gazrdiT.



Rmad gafxviereba _ niadagi damuSavebis ual ternativo teqnol ogia

saqar Tvel os Ziri Tad sasofl o-sameurneo rai onebSi er Twl iani kul-turebis warmoebis Tvis dRemde gamo-iyeneba tradiciul i teqnol ogiebi TgaTval i swinebul i xvnis operacia -(20-25) sm. si Rrmeze. wl ebi ganmavl o-baSi er Ti da i give far Tobebis mxol od zedapirul i xvna, i wvevs niadagebis zeda fenis moyvetas misi Ziri Tadi fe-nisgan, acens er Tgvarad damuSavebul zedapirul Sres, romel ic struktural ad moyvetil ia qveda fenisgan, niadagi s qveda fena Sedarebi T gamkvri-vebul ia, masSi gauaresebul ia haeraci-is da wyl is reJimi, rac sabol oo j am-Si mcenaris kvebis Tvis araxel sayrel garemos qmnis da mosav i anobis Semcirebas i wvevs.

mxofl i os mowinave agrarul qveynebSi tradi-ciul i xvnis procesis nacvl ad xSi rad niadags Rrma mxvnel i T amuSaveben, ra drosac xdeba niadagi Rrmad gafxviereba, wyl is da haeri s re-Jimebi gaumj obeseba, ni-adagi tenis SenarCuneba da misi dacva erozi is-gan. Rrmad gafxvierebi s procesi er Tdroul ad cvl is xvnis da dadi skvis operaci ebs.

evropaSi Rrmad gamafxvierebl i mowyobil obebis er T-er Ti wamyvani mwarmoebel i ital iuri firma „gaspar-do-masko“ roml is producja gamoir-Ceva xarisxi T da konstruksiis simartivi T. firma awarmooebs sxvadasxva modebis gani s mqone model ebs. (ix, cx. 1)

saqar Tvel os sofi is meurneobaSi arsebul i probl emebis gaTval i swinebi T SpS „msofi io teqnikas“ mi-er Semotanil i qna ital iuri firma „gaspar-do-maskos“ warmoebis Rrmad-gamafxvierebel is er T-er Ti model i „atil a“, romel sac SeuZI ia niadagi damuSaveba 55 sm. si Rrmeze da misi

*cxri i 1.
Rmad gamafxvierebl ebi s teqnikuri maxasiaTebi ebi.
(mwarmoebel i ital iuri firma „gaspar-do-masko“)*

model I	tractoris simzI avre, cx.Z.	modebis gani, sm.	dgareblis raodenoba	niadagi damuSavebis si Rrme, sm.	wi naaR-mdegobis Zal a, kg.
artivl o-250	150-250	250	5	65	1140
artivl o-300	180-280	300	5-7	65	1180-1590
artivl o-400	250-350	400	7-9	65	1920-2320
artivl o-500	320-450	500	11	65	3400
atil a-250	110-180	250	5	55	800
atil a-300	130-180	300	7	55	1090
pinoqlo-100	60-130	100	3	45	360
pinoqlo-130	60-130	130	3	45	380
pinoqlo-170	60-130	170	5	45	550
pinoqlo-200	60-130	200	5	45	590
pinoqlo-250	60-130	250	5	45	630
pinoqlo-300	80-130	300	7	45	780

cxrii / 2.

*Rrmad gamafxvierebel i „atil a-300-is”
teknikuri maxasi aTebi ebi*

maxasi aTebi i parametrebI	monacemeblI
damuSavebl s sl gane, metri	3
warmadoba, ha/sT	1,2-2-4
samuSao sl Cqare, km/sT.	4-8
damuSavebl s sl Rrmne, sm	10-55
traqtoris s mZI avre damuSavebl s sl Rrmis s mZI xedvi T, cx/Z	
10sm.-dan 30 sm.-mde	130-150
30-sm. dan 55 sm.-mde	150-180
garabitul i zomebi	3280X2760X1670
wona, kg.	1700

zedapirul i gafxviereba 20 sm. si Rrmneze; aRni Snu-
l i mowyobil oba erTdroul ad asrul ebs guTnis da
kul tivatoris moval eobas (ix. sur. 1). rekommende-
bul i Rrmad mxvnel i daagregatda germanul i firma
„kl aasis” Tvl i an traqtorse – „aqson 820”, roml is
simZI avrenominal uri brunvaTa ricxvis dros 224 cx.
Z. Seadgens. traqtori aRWurvil ia usafexuro si Cqa-
reTa kol ofiT, SeuZI ia saaTSi imoZraos 1,72-dan 40
kil ometri siCqariT. datvirTvis dros samuSao siC-
qaris regul ireba xdeba avtomaturi reJimiT, ukana
xi ds gaaCia avtomaturi mbl okirebel i sistema; wi na
xidi wamyan mimmarTvel ia – avtomaturi amZraviT.
traqtors aqvs wi na da ukana hidravl ikuri saki di
sistema, haeris fil trebiTa da kondicirebis siste-
mebi T aRWurvil i komfortul i kabinada sxva.

Rrmadmxvnel i „atil a” warmoadgensmaRaI i saimedoo-
bis, umartives konstruqcias, romel ic eqspl oataciis
peri odSi ar moi Txovs rTul movl iT teqnikur opera-
ciebs. mis aqtiur muSa meqani zmebs warmoadgens or ri-
gad ganl agebul i kbil ebiani seqciebi 0,5m. daSorebi T
da 0,3 m. rigTaSorisebi T. Ti Toeul i seqtors gaaCnia
vertikal urad ganl agebul i Ziri Tadi kbil i da Sedare-
bi T maRI a ganl agebul i porizontal uri frTa-danebi,
roml ebic amuSaveben ni adagis qveda fenas da uzrun-
vel yofen gadafarvas, ri Tac ganpi robebul ia ni adagis
srul i (wyveti) damuSaveba. Rrmadmxvnel i konstruqc-
ia iZI eva damuSavebi s si Rrmis regul irebis saSual e-
bas 10-dan 55 sm. fargl ebSi.

Rrmadmxvnel i mowyobil obi s dazi anebi sgan dacvis
mi zni T mis konstruqcias cal keul seqtorebze da-
yenebul ia damcvel i (Wradi) WanWi kebi, roml ebic wi-
naaRmddegobi s gazrdi s SemTxvevaSi (di di zomi s qvebi,
an msxvi i fesvebi) mowydeba. am dros seqcia mTl ia-
nad Semobr undeba RerZis garSemo da dabrkol ebas
dauzianebl ad gadal axavs.

Rrmad gamafxvierebel i dakompl eq-
tebul ia ni adagis zedapirul i dam-
qucmacebel i mowyobil obi T, roml is
konstruqcias SeiZI eba arCeul i qnas
momxmarebl is mier ni adagis mdgom-
reobis Sesabami sad.

Cvens mier rekommdebui i Rrmad
mxvnel i aggregatis mier dedofl i swa-
ros rai onSi Sps „dil is mTis” moTxov-
ni T damuSavda 180 heqtari mi wi s far-
Tobi, romel ic faqtobrivid momzade-

bul ia TesvisTvis. SemkveTi organi zaci ebi dan mi Rebu-
l ia dadebi Ti gamoxmaureba da moTxovna Rrmad mxvnel i
agregatis farTo masStabi T gamoyenebi s Sesaxeb.

Rrmad mxvnel iT damuSavebul i ni adagi gamori cxavs
tipuri guTni T Rrmad xvni s nakl ovanebebs, rogori-
caa bel tebis di di zomebi da guTni sqveSa ni adagi s
gamkvri vebul i, gadagl esil i zedapiris (naxnavi s Zi-
ris) Seqmna.

amgvarad ni adagis Rrmad mxvnel s Cveul ebriv gu-
Tan Tan Sedarebi T gaaCni a Semdegi upi ratesobebi:

– ni adagis Rrmad damuSavebabel tis gadabru nebi s gare-
Se, romel ic srul deba or rigad ganl agebul i vertikal-
uri kbil ebiani seqtorebi T, maTi raodenoba (5-7) clamoki
debul ia Rrmad mxvnel i mowyobil obi s modebi s ganze.

– ni adagis efeqtiani gafxviereba, romel ic xor-
ciel deba kbil ebi Ta da maT gver debze ganl agebul i
dana-frTebi s meSveobi T.

– ni adagis tenis SenarCuneba, rac mi i Rweva ni ada-
gis si RrmneSi wyl i sa da tenis SesanarCunebel i ar-
xebis mowyobi T da kbil ebiani sagor avebi T ni adagi s
gafxvierebul i zeda fenis Seqmni T.

– TesvisTvis ni adagis momzadebi s operaciis rao-
denobi s Semcireba, rac mi i Rweva ni adagis Ziri Tadi
damuSavebi s Semdeg kul tivaciis an dadi skvis operaciis
gamori cxvi T.

– mni Svnel ovnad mcir deba erTi heqtari farTobi s da-
muSavebi s Tvis saWi ro sawavis xvedri Ti xarj i, rac mi i R-
weva teqnol ogiuri operaciabis raoedenobi sa da sawa-
vis xarj i Semcirebi T xvni s operaciis Tan Sedarebi T.

*cxrii Si 3 mocemul ia Rrmad mxvnel i aggregatis
ekonomikuri monacemeblI, romel ic Sedarebul ia Cve-
ul ebrivi xvni s operaciis Tan.*

amgvarad, gamkvri vebul ni adagebSi Cvens mier rekomm-
debul i Rrmad mxvnel iT ni adagis damuSavebi s SemTx-
vevaSi wi na wl ebis xnul i s Ziri ingreve, umj obesdeba
wyl i sa da haeris reJimebi, mni Svnel ovnad mcir deba
erTi heqtari farTobi s damuSavebaze saWi ro sawavis
xarj i, xdeba ni adagi s Rrmad damuSaveba mi si zedapirul
i fenis daqucmacebi T, rac ni adagis tenis SenarCune-
bas dami seroz i sgan dacvis uwyobs xel s.

*zviad bregvaze
Sps „msofl io teqnikas”
sameTval yureo sabWos Tavmj domare
nugzar ebanoiZe
teq. mecnierebaTa doqtori, profesori*

cxrii / 3.
100 heqtari farTobi s damuSavebi s SemTxvevaSi
Rrmad mxvnel i ekonomikuri monacemeblI

operacia	saw.xajl i kg/100 ha	Srom. danaxarj i kac.ST. 100ha	drois danaxarj i	operacia	saw.xajl i kg/100 ha	Srom. danax. kac. ST. 100 ha	drois danaxarj i
dadilskva	650	110	55				
xvna	2000	125	125	gafxviere.	1100	80	83
dadilskva	650	110	55				
kul tivac	700	50	40	Tesva	600	120	50
Tesva	600	120	50	mogoreba	600	40	40
mogoreba	600	40	40				
sul	5200	555	365		2300	240	173
ekonomi a					2900	315	192

„kavkasiis genetikais~ xel ovnuri ganayofiereba da msxvil fixa r qosani pirutyvis sanaSene saqmianoba

xel ovnuri ganayofiereba sasofl o-sameurneo cxovel Ta xarisxobrivi gaumj obesebis erT-erTi yvel aze efeqtiani saSual ebba

*cnobli la, rommsofl los
ganvi Tarebul qveynebSI
furebls ganayofiereba
mxol od xel ovnuri daTes-
vl ITxdeba, xol o fermebSI
kuro-mwarmebl ebls dasa-
Tesl ad gamoyeneba kanoni T
IkrZal eba. srul iad gansx-
vavebul I mdgomareobaa am
mxrl v saqar Tvel osI.
sabWoTa kavSiri dasi ls
Semdeg qveyanaSi mecxove-
I eobl s sanaSene saqmianoba
mTI lanad molSal a. dalngr
da ganadgurdaxel ovnuri
ganayofierebis materia-
I ur-teqnikuri baza(xe-
I ovnuri ganayofierebis
sadgurebl da punqtebl). res-
publ IkaSi gauqmda sanaSene
saqmls department/c. Tum-
ca, bol o wel ta qveyanaSi Se-
mosul I ucxouri grantebls,
adglI obrlv mecnierebisa
dapraqtikosi special iste-
bls mler Seqmnll I sazogado-
ebebisa da asociacliebls dax-
marebl Tammxriv garkveul I
dadebl TI Zvrebl IgrZnoba.*

erT-erTi aseTi furis xel ovnuri ganayofierebis asociacia „kavkasiis genetikaa“. igi 2006 wel s dafuznda, sadac gaertianen rzis sektoris eqspertebi, sel eqcioneri mecnierebi, veterinarebi da xel ovnuri ganayofierebis special istebi. asociaci am saqmianoba mwiri resursebi T dai wyo. igi Tavidan aRmosavl eT da samxreT saqar Tvel os emsaxureboda. dReski is qveyanaSi cxovel Taxel ovnuri ganayofierebis sferoSi erT-erT umTavresi mimwodebel ia.

am xnis ganmavl obaSi „kavkasiis genetikam“ kavSiri daamymara amerikisa da evropis cxovel Ta xel ovnuri ganayofierebis iseT ganTqmul kompaniebTan, rogorebicaa: „World Wide Sires,“ „Accelerated Genetics,“ „Select Sires Inc“ da sxva, ramac msofl i oSi arsebul i saukeTeso genofondis gamoyeneba Cveni pirutyvis gasaumj obesebi ad SesaZl ebel i gaxada.

„kavkasiis genetika“ respubl ikis masStabiT axorciel ebs xel ovnuri ganayofierebis serviss, sakonsul-taci omomsaxurebas(treiningebi, rekondaciebi da daxmarebebi mecxobel eobi s svadasxva saki TxebSi), genetikuri masal is (sperma, embrioni) da pirutyvis imports ameriki dan da evropis qveynebi dan. am is garda, asociacia fermerebs sTavazobs maRa-

I i xarisxi s svadasxva zomis Rr mad gayinul i spermis Sesanaxad di uaris WurWel s Txevadi azotisaTvis, xel ovnuri ganayofierebis mowyobi-l obebs da instrumentebs, cxovel Ta sidentifikacio sayureebs, nomris dasadeb maSebs da sxva.

„kavkasiis genetika“-is special isti veterinarianabi sistematurad exmarebian asociaciaSi gaertianebul fermerebs maTi cxovel ebisj anmrTe- l obasTan dakavSirebul probl emebSi da profil aqtikur acrebSi, raTa gamoircos yovel gvari daavadeba da mi Rebul i naj vari Taoba usafr-Txo iyos.

2006-2010 w.w. manZil ze asociaciis uSual o monawil eobiT kaxeTis, qvemo da Si da qarTI is, samcxe-j avaxeTis mxareeba da aWaris avtonomiur respublikaSi dafuznebul ia Tanamedrove aparaturiT da danadgarebit aRWurvil i xel ovnuri ganayofierebis servis-centrebi, momzadebul ia special istebi (mTesl avi teqnikosebbi da operatorebi) damaRal produqtivul i mwarmebl is spermiT ganayofierebul ia 5000-ze meti sul i adgi-l obrivi sadede pirutyvi. furebi da dekeul ebi s ganayofierebis procenti mxareebis mi xedviT saSual od 50-55%-mde meryeobs. am etapze SedarebiT maRal i maCvenebel ia mi Rebul i samcxe-j avaxeTis mxareSi, sadac rai-onebis mi xedviT xel ovnurad daTes- l il i cxovel ebidan saSual od ganayofierda 60-dan 65%-mde furi.

asociaciaSi SemuSavebul ia, cxovel Ta identificirebis da registraciis sistema, rac evropul i standartebis analogiuria, magram misadagebul ia qarTul real obas-Tan. aseTi ve mdgom Taa Seqmnll i pirutyvis individualuri pasportebi da sanaSene baratebi, romel Ta saCvenebel -sademontracio „sapi l ote“ programma ganxorciel da samcxe-j avaxeTSi, Si da qarTI Si da kaxeTSi.

si RnaRis rai onSi, sofl is meurneobis saministros teqnikuri daxmarebiT asociacia „kavkasiis genetikam“ Seqmna sanaSene saqmi sa da xel ov-





nuri ganayofierebis centri, Tanamedrove teqni ki T aRwurvil i l aboratori i T, kuro-mwarmoebl ebi s sadgomi T, sacdel i furebis fermi T, cxovel ebis sa-demonstracio maneji T, sakonferencio darbazi T, mom saxure personal i sTvis gankuTvnil i oTaxebi Ta da sxva. damontaJebul iamsofl ioSi ganTqmuli ger-manul i firma „MINITUB“-is aparaturi T aRwurvil i l aboratoria. aRsani Snavia, rom pi rvel ad samxreT kavkasi i s qveynebSi moxda adgil ze dabadebul i, adapti rebul i, Svcisa da hol Steinis xal asi j iSis kuro-mwarmoebl ebi dan spermis aReba, paitebSi dafasoeba da kri okonservaci a. amJamad mi mdi naeobs aRebul i spermis sanaSene Rirebul ebi s Seswavl a.

axl o momaval Si gamovzr di T da spermis xarisxob-riv gamocdaze davayenebT agreTve CvenSi ukve ap-robi rebul da adapti rebul kul turul sarZeo da

saxorce j iSebi kuro-mwarmoebl ebs, rogorbe caa: j ersul i, kavkasiuri wabl a, angusuri da sxva. amas-Tan erTad centrSi samegreli osa da mcxeTa-mTi ane-Tismxri dan Semovi yvaneT qarTul i aborigenul i j i-Sis-megrul i wi Tel i sa da kavkasiuri mTis saqonl i s tipuri sabuReebi, raTa Sei qmnas maTi spermis banki.

saqarTvel oSi aborigenul cxovel ebSi sanaSene saqmianoba aTeul i wl ebis manZil ze aRar mi mdi na-reobs. sxva j iSebTansisxl i s aRrevi s gamo i s unika-luri ni San-Tvi sebebi, rac maT axasia TebdaT, dro-Ta gamavl obaSi nel deba da i kargeba. magal i Tad, dRes axl o naTesauri Sewyil ebis maCvenebel i pi-rutyvSi, xSi r SemTxvevaSi, 20-30%-s aRwevs. es i mas ni Snavs, rom amdeni ve procent i Taa Semci rebul i misi sarZeo da saxorce produqt i ul oba. ami tom, asociaclia „kavkasi i s genetikam“ qveyanaSi cxovel ebTa sanaSene saqmianobis aRdgenamde, mi znad dai saxe spermis bankis Seqmni T momavl i saTvi s daakonservos da Seinarcunos es genetikuri resursi, radgan misi swrafi amaRI ebis da kontrol i s saukeTeso meTodi momaval Si xel ovnuri ganayofierebis gzi T gamrav-I eba i qneba.

„kavkasi i s genetikis“ sanaSene saqmis da xel ovnuri ganayofierebis centrs perspektiul gegmaSi Cadebul i aqvs furebis xel ovnuri ganayofierebis sru-lli iad axal i, novaciuri teqnol ogi i s danergva. es aris spermis sqesobrivi SerCeva, anu „seqsirebul i spermis“ gamoyeneba xel ovnuri ganayofierebis pro-cessi, rac 90%-iani al baTobi T mdedrobi Ti sqesi namatis mi Rebas uzrunvel yofs. aseTi gadarCeul i spermis gamoyeneba gansakuTrebi T sasurvel i i qneba im fermebSi, sadac sarZeo j iSis furebi hyavT da maRaL produqt i ul mewvel i saqonl i s sul adobis swrafi mateba esaWi roebaT.

produqt i s samrewvel o doneze gasvl i s Semdeg „kavkasi i s genetikis“ mi er damzadebul i dozi rebul i sperma, standartisa da etiketi rebis mixedvi T, ganvi Tarebul i qveynebis produqt i s Sesabamisi, i qneba, xol o importul Tan Sedarebi T misi sareal i zacio fasi – bevradi iafi. axl o momaval Si dagegmi l i gvaqvs, rom CvenTan warmoebul i da importul i sper-mi T ganayofierebul i Zroxebis wil i saqarTvel oSi furebi s mTl iani sul adobis 10%-mde gavzardoT.

Cxovel Ta genetikuri masal ebi s da axal i bazris mopovebis mi zni T, dai deba kontraqtebi da vi Tanam-Sromi ebT samxreT kavkasi i s Sesabamis organi zaci-ebTan, rac CvenTan warmoebul i dozi rebul i spermis ufro didi odenobi T warmoebis saSual ebas mogv-cems.

Tu kvl av gagrzel da saxel mwi f os keTi l i neba, xe-l ovnuri ganayofierebis rol i saqarTvel os mecxovel eobi s ganvi TarebaSi mni Svnel ovnad gai zr deba da Ri rseul adgil s dai kavebs, i se, rogorc es mecxovel eobi s produqt ebi s mwarmoebel qveyanaSi a.

*gel a mallaRaSvi l i,
sofl i s meurneobis mecnierebaTa doqtori,
asociaclia „kavkasi i s
genetikis“ general uri menej eri.*

rTvel - 2010

sagar Tvel oSi rTvel i grZel deba, Tumca, Ziri-Tadi mosaval i ukve dabinahebul ia. ra raodenobis yurZeni daikrifa da daiwura wl evandel rTvl obas qveyanaSi amis zusti statistika jer ar arsebobs, magram faqtia, rom mosaval i imaze cudia, vidre vvaraudobdi T.

erTi ram ki udavo faqtia: wl eul s bazarze yurZens fasi daedo, ramac Cvens mevenaxeebs cota SeRa-vati misca. yurZnis cudi mosaval i martokl imatur pi robebs ar gamouuvevia. aq sxva ufro seriozul i, mizezebic aris, razec al baT special istebi sakutar azrs gamoTqavamen. manamde ki, Cven imritual ebسا da sxva saintereso Cveul ebebze mogl TxrobT, rac sagar Tvel oSi rTvl obisasrul deboda.

ritual ebi

imereTSi yurZnis krefis dasrul ebis Semdeg mamaL s kl avdnen, jani an bavSvebs venaxSi gaagorebdnen – gai sad ami savi TmZime mtevnebi dai sxas vazmao.

qarTI Si rTvl is win sal ocavSi Seswi ravidnen xol me cxvars, Txas, an mamaL s, sufras venaxis TavSi Si idnen, cecxl sanTebdnan da pirvel aWril aki dos RmerTs uZRvnidnen;

raWaSi yurZnis krefas manam ar iwyebdnan, sanam cvari ar SeSreboda – cvrian yurZens wyal i gayveba da Rvino rbil i gamovao.

samegrel oSi oj axis ufrosi rTvl is dasrul ebis Semdeg mxrebze bavSvs Semoisvamda da vazTan mi vi doda, fel amuSs waacxebda da dail oceboda – Senc isemoixare mtevnebi sgan, rogorc mevar moxri-i i tvirtisgano.

Rvini's damzadebis qarTul i meTodebi

sagar Tvel oSi Rvinos Ziri Tadad kaxuri, imerul i, gurul i da evropul i meTodebi T amzadebdnen, Tumca, cnobil ia agreTve mesxuri, Sua da qvemo qarTI u-ri teqnol ogiebiC.

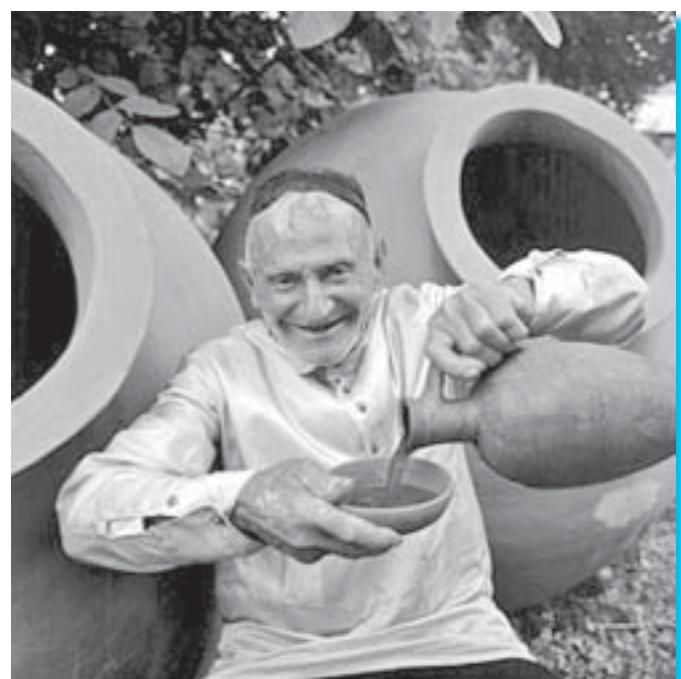
popul arul i kaxuri Rvini's damzadebis meTodi: yurZeni i se gadaarCieT, rom dazianebul i marcvl ebi ar Seayol oT, dawureT special uri saWyI etiT, an sawnaxel Si fexiT da moatavseT WurWel Si (qverri, kasri), raSicapirebT Rvini's dayenebas. WurWel s saxuravi daaxureT da procesis dawyebas dael odeT. duril is dawyebis Semdeg WaWa zemot wamova, ami tom unda daurioT, raTa WaWa wvenSi CaabrunoT. am operacias iol ad Seasrul ebT, Tu xis amosarevs bol oSi j varedinad Ti Tomtakvel ian gaTl il jo-xebs daakravT. moreva aucil ebel ia dil a-saRamos, magram rac metj er mourevT miT ukeTesi. dawurvidan me-9-me-10 dRes maWari dawynar deba, bol oj er aurieT da WaWa kvl av fskerisken Caabrunet. or-sam dReSi Rvino sxva WurWel Si unda gadai Rot. wi Te-Ti i Rvino daduRebisTanave unda moacil oT WaWas, raTa feri ar dakargos. TeTri Rvino, magal iTad rqawiTel i, erTi-ori kvira ki dev SegiZl iAT dato-vot WaWaze. wel iwadSi oTx-xuTj er mainc swirdeba



gadaReba: pirvel gadaRebaze Rvino WaWas gamoari-deT, rom eqi mosciL des. meored Rvino erTi Tvis Semdeg gadai ReT, mesame gadaReba aucil ebel ia adregazafxul ze, meoTxe – zafxul Si. Rvini's gadaRebis procesi l eqi s sabol oo mocil ebamde unda gagrZel des.

rogor movamzadoT saRvi ne WurWel i

qevrs (Wuri) maRal i xarisxi Tixi sgan amzadeben. sauKeTesod iTvl eba zemo imereTis, SroSis Tixi s qvevrebi. vidre qevrs miwaSi Camar xaven, mas wi naswar sagul dagul od damuSaveba swirdeba, rom ked-1 ebi dan Rvino mar gaJonos da kargad Seinaxos. amisaTvis i gi Signi dan natural uri cviL iT (futkris sanTel i) unda damuSavdes (adre cviL is nacvl ad kuprs, saqonl is, an Txis qonsac i yenebdnen). qevris momzadeba – amosanTvl as Tqvenc Tavisufl ad SeZl ebT. vidre qevrs Cafi avT Sig el eqtroRume-1 i Cadgi T da 70-80 gradusamde gaacxel eT, aadu-





ReT cvi l i, Caasxi T qvevriSi da qvevri xel i T wi nas- war momzadebul ficebze (xel TaTmanebiT) imden xans agoraveT, sanam cvi l i T an qoni T qvevris Si da zedapiri mTI ianad ar gai JRinTeba. Semdeg qvevri ficebze amoatrial eT, raTa zedmeti cvi l i gad- moi Rvaros. rogorc ki darwmundebiT, rom zedmeti si Txe mTI ianad gadmoi Rvara, swrafad gasaci veb- l ad garedan ci vi wyal i mi asxi T.

aRmosavl eT saqarTvel oSi qvevrs maranSi, mi waSi aTavseben, rom Rvi noze gar emos temperaturis cva- l ebadobam ar imoqmedos.

qvevris recxva

vidre qvevriSi axial Rvi nos daayenebT, igi kargad unda gai recxos. movl il i, naRvi nebi qvevri i ol i ga- sarecxia. Tu qvevriSi didi xani Rvi no ar dayenebul a, igi kargad unda gai recxos.

sagarTvel oSi qvevrebs special uri sarcxebiT recxavdnen. sarcxi mware bal is kani gan keTdeba. imereTSi bazarze Semodgomaze Rvi nobis Tve rom moawevs, aseT sarcxebi mravl ad naxavT. aris grZel - tariani, qvevris zemodan sarecxia da mokl etariani, Casaval i, didi qvevris gasarecxad.

qvevri ramdenj erme kargad unda gai recxos da na- recxi wyal i yovel j erze gadai Rvaros. qvevri dan narecx wyal s kopi T i Reben, roca darwmundebian, rom qvevri kargad aris garecxil i, mas sagul dagu- l od amSral eben da Sig mxrCol av gogirds ki deben, meore dRes qvevrs Tavs xdi an ani aveben da Rvi nos as- xamen. gogir di xel s uwyobs Rvi ni s dal eqvas da mavne baqter i ebi sagan qvevris gasuf Tavebas.

გუდამაყარი

me Tunda ar vTqva, mTebi getyvian, rac mawuxebi da rai c mal aRebs

*,kac Ta nasaxl ars
nu manaxveb da
nu gaxdeba
saqar Tvel o
naxevris-
naxevari da Sen,
kuziano
dedami wav,
ramdenic ginda,
itrial e.”
goderZI Coxel /*

*„zogj er i se axl os vgrZnob Cems moTxrobebs, meSinia, mar TI aar gacocxl dnen...
mgonia rom gudamayris xeoba didi wi gnia. mTebi ydebada aqvs am wi gns da Sig-
ni Tu amravi moTxroba weria...“*

*... ydi dan ydamde amova da Cava mze, amova da Cava. dadian, daal aj uneben moTx-
robebi Signi T...
xomgi Txari. ai, axl a, mival da gadavSI i. moismine raweria”:*

ase i wyeba goderZi Coxel is mSveni e- ri patara moTxroba „Cemi wi gni”.

es wi gni yvel as SeuZI ia gadaSal os da Tavis Tval i T naxos, rogor cocx- l debian moTxrobebi. ar gj eraT?!

adi T gudamayris xeobaSi da naxeT: ager xeCo. iqiT fili ipianT vanua (gruzini). ai, Cvens win kotoraaNT qal ma gamoi ara fexdafex aragvi...

goderZi Coxel is gudamayari ki dRes ufro gul sakl avad gamoi yure- ba vidre maSin, roca iq misma tkbil - mware bavSvobam gai aRa.

Znel i sanaxavia sofel i Cox - goderZis naskol ari (Zal ian ciudad xvdeba yurs „naskol ari”), Camong- reul, Camofxavebul i, kacisa da pi- rutyvisgan Sebil wul i ... arcTu di-

di xnis wi naT akakim, il ias tyvia rom vesrol eT, mogvaZaxa, risi Rirsebi ca varT. (amas saqarTvel os mTavrobis, ganaTI ebisa da mecnierebis, kul tu- ris samnistros da, gansakuTrebi T, mcxeTa mTi aneTi s samxareo adminis- traciis da duSeTi s gamgeobi s, sxva- Ta Soris, saqarTvel os parlamentis wevris, nugzar wi kl auris gasagona- dac vambob). me aRar gavimeoreb. ub- ral od vi tyvi! rac gvi Txra, al al ad vi msaxurebT!

RvTis anabara mi tovebul i es mi wi- eri samoTxe im ramdenime kacis mxre- bi TRa RoRinobs, visac mSobl iuri kuTxear eTmoba, Torem aqua roba di- di xnis wi naT dai cl eboda.

Turme, nu i tyviT da, saxel mwifos

mwiri biuj etis gamo, ar SesZI ebia mTis daxmareba (sxdagan – fSavSi, xevsureTSi, mTiul eTSi, xevSi uaresi vi Tarebaa, amis Taobaze vverdi T Cveni Jurnali i wi na nomrebSi)...

danamdvil ebi T SemZI ia gi TxraT: erTi Sadrevana da romel i Rac mi viwyebul i pop-varskvl avis Camosayvanad gaRebul i xarj iT (honorari, scenis, butaforebis, feierverkis mowyoba) gudamayari gamicocxl deboda, aqaurebs cxovreba gauumj obesdebodaT, magram...

gudamayris xeobaSi 22 sofeli ia, – 307 komi iT. amaTgan ramdenime sezonuria. zafxul Si adian – sa-Zovrebze pirutyvi ahyavT da kartofil s Tesaven.

ramdenime wl is wi naT gudamayris xeobas ZI ieri wyal di doba daatyda Tavs, gzebi daingra da Cai keta. maSin rom argvisTvis j ebi rebi gaekeTebi naT, gudamayari ase ar dai cl ebodao, meubneba gudamayris Temi s rwmunebul i nel i begauri da mi xsnis.

– aq sofli ebia, rom gavivl iT, dainaxavT, iq Tu j ebir i ar gakeTda, 10-15 santimetri T rom aiwi os aragvma, saxl Si SeuvardebaT wyal i.

roca aragvi di ddeba, Wal ebi mTI i anad wyl iT ifareba.

aq rom wi nandel i pirobebi iyo gzebi i wmindebedes, avtobusi dadi odes, aseTi demografiul i mdgomareoba ar iqneboda.

marTal ia, axl ac brundebamosaxl eobaukan, magram ukeTesi pirobebi rom iyo, ufro metni daubrundeboden mSobl iur saxl -kars.

– *pirobobi ras gul lsmobT?* – Caveki Txe qal battonnel is.

– umTavresad gzas, 90-i anwl ebSi dai wyes gzi s gake-Teba, mosworeba da moxreSva, Ti Tqos asfal tic unda daegoT, magram sad wavi da i s ful i, aravin icis. axl a ragzacaris, ki xedavT.

goderZi Coxel i mSobl iur sofeli Si varT. goderZi s saxl i cota maRI aa. mezobl ebs mis gaxsenebaze Subl i exsnebaT. goderZi didi kacia.

Cvens wi naxevrad dangreul i orsarTul iani Seno- baa (naskol ari). aq goderZi swavl obdao, maCveneben.

ar ekadreba goderZi Coxel s misi skol a am mdgomareobaSi iyo meTqi, vuTxari. mxrebi aiCeCes, Cven ra Segvi ZI iao. arc Tems aqvs raime Semosaval i, rom Senoba SeakeTos. aq skol a di di xani a dai xura.

am suraTma cud gunebaze damayena.

gudamayris xeobis mcxovrebTa saarsebo wyaro mesaqonl eobaa. kol eqtivis periodSi aq Zal i an bevri cxvari hyavdaT, magram dRes misgan Ti Tqmisi aRaraferia SemorCenil i. rogorc aqaurebi mi amboben, mecxvareobis ganvi Tarebas Seqmili i pirobebi xel s ar uwyoobs.

– Sar San Cvenma mosaxl eobambl omad cxvari gayida. ar vici, arabebi i ynen Tu iranel ebi – meubneba rezo Coxel i – erTi anad waiyvanes. xal xs imedi Caesaxa. cxvris gamravl eba dai wyo, magram pirobebi da xel - Sewyoba ar aris, cxvars zamTrissaZovari unda. Tu es saki Txi mogvar deba qveyanac i xeirebs da xal xi c. es kuTxec Seivseba da Zvel eburad axmaur deba.

– ai, am mTebi xom xedavT – al puri saZovrebisken maCvenebs batoni rezo – sul savse iyo zafxul obiT cxvrit.

– *mai nc ramdeni sul i cxvari eyol ebodaT maSin gu-damayrisi?* – veiki Txebi.

– u! 40 aTasze meti mar to kol meurneobaSi hyavdaT, imazemeti ki dev mosaxl eobaSi iyo. imdeni cxvari iyo, am mTebi aRar eteoda. xal xsac ar uwinda, SeZI ebul ad cxovroba. im dros erTi kil ogrami matyl i 12 maneTi Rinda (maSin erTi amerikul i do- lari 0,64 maneTi Rinda, Tumca dol ari rom vi nmes-Tvis enaxaT, cimbiri uk an darCeboda), erTi cxvris naparsi 16-17 maneTs iWarda. axl a matyl s saer Tod fasi aRar aqvs, samagierod cxvris fasi gai zarda. im dros Tu batkani 40-50 maneTi Rinda dRes 100-120 lari Rirs. im dros erTi cxvris naparsi T erT toma- ra fqvil s yidul obda kaci, dRes kil ogrami matyl i 11 arad Tu Caabar e kargi bi Wobaa. maSin cxvris momravl eba exal i seboda xal xs, radgan Sedegs xedavnen. dRes ki dev? wval ebba da meti araferi. SimSil iT romar amovi xocoT, muqTaze vi SromoT.

axl a cota imedi gauCnd a xal xs, arabebi Tu sparsel ebi rom Semovi dnen da gaiyvanes cxvari, xal xma cota gai xal i sa, cxvris momravl eba dai wyo, imi tom, rom karg fass uxidian.

– *pirobobi rom iyo, Zvel eburad moaSenebs xal xi gyaans?*

– moaSenebs, rogor ar moaSenebs. dRes xbo 100 l ari Rirs, xol o batkani 120-130 l ari. naxet, ramdeni mogebar.

– aq saqonl is moaSenebl adac xom kargi pirobebia?

– pirobebi kia, magram zamTarSi saqonl is Senaxvac Zal i an Znel ia. 30-50 ZroxisTvis sakvebis clamzadeba... saTibebi ki aris, magram motibva da Camotanaa rTu- li.

mTaSi cxovreba rTul ia. 8 Tve zamTaria. gza ar aris. deni ki gvavqs, magram el eqtrrogayvani loba Zve- l ia. boZebi Tavis i T iqceva. Ziri gamopal i aqvs. vi d- rear motydeba, SekeTebas aravin fiqrobs.

– *el eqtroenergiis safasurs xom ixdiT?*





– aba ოგორ?! i se vi n mogvçems dens, kargi bi Wi xar da nu gadai xdi ?!

– zamTariSi ri T Tbebi T?

– SeSi T, magram ager xom xedavT tyeSi vcxovrob da imis ufl ebas ar gvaZl even xes toti SevaWraT, usabuTod fiCx ver gamogvi tania tyidan. Camoweri -I i xeebi xevebSi da mTebSi unda eZio, manqana i q ver mi dis da traqtori, xariT unda aTrio.

wval ebba Cveni cxovreba da meti araferi – saubar-Si er Tveba arCil wi kl auri. – me fasanaurSi vcxovrob, 10 Zroxaze mets ver vinaxav. aris oj axebe, visac 40-50 sul i hyavs. i sini amTabareben saqonel s. Tbil i-sis SemogarenSi – muxiani sa da Temqis zemoT zRvi SemogarenSi sul Cven xal xs aqvs aRebul i mi webi da i q azamTreben, zogs kaxeTSi gadahyavsaqonel i da ase wval oben.

sazafxul od mec aq, bursaWiSi amomyavsaqonel i, movasuqeb da sazamTrod ukan fasanaurSi Cavi yvan. axl ac i q mi vdi var, saqonel s unda davxedo.

– rogor, upatronod gyavs amden xans gaSvebul i?

– upatronod ratom. momvl el i hyavs. i se pirutyvi gaSvebul ia.

– nadiris ar geSiniaT?

– sad aris nadiri. i SviaTad Tu gamoCndebe.

– Sorsaris Coxid dan bursaWiSi?

– rva kil ometri i qneba, me i qauri var. aba i q aris i al aRebi Tuaris.

– ramdeni oj axi cxovrobs sofel Si amJamad?

– axl a, zafxul Si 30 komi i qneba. oqtombris daswyisi dan noembris bol omde i qauroba mTI ianad dai cl eba, kaci s WaWanebas veRar naxavT. i q romel eqtroenergia da gza i yos, fexs ar movicvl i di i qidani, i se amoixra batonma arCil wi kl aurma kinaRam gul i amoayol a.

– es er Tader Ti sofel i a gudamayarSi, sadac el eqtroenergia ar aris. gzac gauval ia, – mi xsni s qal batoni nel i beqauri. marTal s ambobs, gza da el eqtroenergia, romi yos, bevr i oj axi darCeboda.

eqimi, eqimi gvWi deba, rom mudmivid i yos aq. rame rom gagivWi des unda gamoiZaxo. axl a xal xi mTaSi a asul i, mTaSi ki faTeraki yurs ukanaa, rame rom mo-iwi os, vi dre aq Camoi yvan da eqimi s amosvl as dael o-debi, Tavis daemar Teba.

i que, pantis Ordil Si axal gazrda kaci dgas, cxe-ni aRviriT uWi ravs, i dayvi T unagi rs dayrdnobili i gvi smens..

– ragqviaT, ragvaris kaci xarT, meTqi, veki Txebi.

– burj i afciauri – mi pasuxa di nj ad.

– burj I, rIT cxovrob, ras saqmianob?

– abari TaZmao, arc riT. ai, saqonel i, cxvari ... co-taodeni romi yos, mi vxedavdil T, mouvl i di T.

– zamTrissazovrebi ar Wirs?

– rad Wi rs. unda waxvi de kaxeTSi da i qirao.

– axal gazrdebi arian sofel Si, i sini ras saqmianoben?

– arc ras, saqonel s Tu mouvl i s aq kaci, sxva ra unda akeTos. i si c ar aris. rom SeiZl ebodes... Tundac sesxi s aReba, rom cxori i yos, raRac i yos. yvel a mohki debs xel s. xel Sewyoba sWi deba aqaur kacs, mTavrobam unda moi fiqros raRac, rac xal iss gauCens adami ans.

stimul i namdvil ad sWi deba aqaur ebs. unda dai na-xon, rom maT Sromas fasi aqvs. eseni xom samasi ar ag-vel i sj i Si saarian. i ci an samSobl os yadri.

Coxel ebs vemSvi dobobiT. aragvze sacal fexo xi-di T gadavdivarT. xidi hqvia, Torem ori xis Zel ia gadebul i mdinareze, zed br tyel i ri yis qvebi a da-l agebul i. aseTi sacal fexo xi debi Zal ian popul arul ia gudamayarSi. al baT i mi tomac, rom, Tu adi de-bul i aragvi wai Rebs, i ol ad SeiZl eba aRdgena.

adre aq, mezobel sofel Si, aragvs gaRma mcire el eqtro sadguri yofil a. saqar Tvel os energo-re-sursebis ef eqtura d gamoyenebis asociaci s xel m-ZRvan el i anzor dundua maCqarebs, aintere sebs na-xos, ra aris darCenil i el eqtro sadguri dan da ris gakeTebaa SesaZl ebel i am sofl ebi s Tvis energouz-runvel yofis mxriv.

sofel dumacxoSi Zvel i stil i T naSen patara Se-nobas Tan vCer debi T. etyoba gasul i sau kuni s ocdaa-Tiani wl ebi s dasawyisSi a gebul i. rogorc aqaur ebi gvi xsni an, 40-i an wl ebSi aq erT duSel kacs, gvarad papaSvi l s umuSavia kol meurneobis Tavmj domared, swored mas auSenebi a kul turis saxl i, skol a, ambu-l atoria da el eqtro sadguri, romel i c am dawesebu-l ebi s garda 6 sofel s amaragebd a el eqtro energi i T. im dros m imdebare sofl ebSi deni al baT arc i cod-nen xeiri anad ra iyo, radgan saqar Tvel os mTiani regioni s el eqtro fici reba gasul i sau kuni s 60-i an wl ebSi dai wyo da gudamayris sofl ebic gasul i sau kuni s 70-i an wl ebi s dasawyisSi Semoi yvan es. am kacs augia sofel Si kl ubi da sxva kul turul i obi eqtebi. misi gvar i gadmo cemi T dRes gudamayarSi yvel am i ci s da al baT ki dev di dxans emaxsov rebaT, radgan si ke-Tes bor o tebaze meti maxsov reba aqvs.

el eqtro sadguri s narCenebi c aRar ar sebobs, mxo-l od Senoba da saTavo nagebobaa SemorCenil i. aq, al -baT, ukeTesi el eqtro sadguri s gamar Tva SeiZl eba, romel i c mTel zemo zonas uzrunvel yofs el eqtro energi i T.

saer Tod ki, gudamayarSi imdeni da i seTi xari sxia-ni wyl i s resursia, romel i c marto el eqtro energi-i T ki ar uzrunvel yofs am mxares, aramed sxva bevr

si keTesac moutans am mxares. mar to i s rad Rirs, rom Tu sworad gaTvI i s kaci, aq Zal i andidi raodenobis ekol ogi urad sufta saeqsporto mdinaris kal maxis warmoeba Sei ZI eba.

Cvens Sesaxvedrad ezodan axal gazzrda kaci gamodis. iago varo afci auri, gvecnoba. am el eqtrosadgurisa da misi amSenebl i s Sesaxeb istoriebi sofel Si mravl addaa Semonaxul i. roca energetikosebTan l a paraki daasrul a, i agom CemTvis sac moical a.

– es ra yofaa. CamoTovs – gza ar aris. wyal i adiddeba – gza ar aris.

– *ramdeni Svi l gyav? – veki Txebi.*

– ori.

– *skol aarissofel Si?*

– ara, qvemoTaa, ki toxSi. aqedan oTxI kol ometria.

– *zamTarSi rogor dadian bavSvebi am gza?*

– roca gza Cai keteba, Sin dar Cebian, sxva ra gzaa.

– *ri TIpovebT sarCo-sabadebel s, oj axs ri TInaxav aq, mTebSI, ramdeni ram gWI rdeba kacs, oj axs?*

– unda „gaCuCunde“ kaci. aba rogor gi nda. sofel Si Tu cxovrob, an ZroxaSi unda gaxvide, an cxvarSi. i se vi nras mogi tans. kartofil i momyavs, ki dev cotaodenii xil i: vaSl i da msxal i, saqonel i myavs...

– *ramdeni kaci cxovrobs dumacxosi?*

– zafxul Si – 6-7, mudmi vad – 2-3.

– *mi wa bevri gaqv?*

– mi wi s meti ra aris, – i ci nis i ago. – ai, es mTebi ma-ma-papi sgan gvaqvs danawil ebul i ...

netav, vi nme movi dodes! kargi rame gaakeTos da mi-wi s meti ra aris, xal xi dasaqmdes, qveyana ganvi Tar-des, amas ra aj obebs.

aba, es ra cxovrebaa. mTel i zafxul i mTaSi var. fe-xebs ZI i vs davatareb. sazamTrod 30 bul ul i Tiva mai nc mi nda (Ti To bul ul i 130-150 kilogramia). j er unda movTi bo, mere Tovl s davel odo. Tu di di Tovl i movi da da axl a i mas unda el odo, nodis dai wevs.

– *mSral ze rom Camoi tano? – Rimi l iT veki Txebi*

– ras ambob, Zmao! – i ci nis i ago – kl de aris sul , dabl ar aRaRas Camovi tan, xom dar Ca mTI i anad gzaSi.

i agos vemSvi dobebi. patara biWebi mafrTxil eben el eqtrosadguris saTavisaken ar waxvide uCvenod, nagazebi daggl ej eno. ra nagazebi gyavT, rom maSi-nebT, er Ti manaxeT meTqi, – gamomwevad veki Txebi.

wamo er Ti, Tu magari xar, mi ekareo, mi pasuxa nawye-ni toni T yvel aze pataram.

i ago mi ubrunda, – I ekvi unda, kargi, gamouyvane! – maSinve i uares, aba l ekvi sad gvyavso.

sofel i sakerpe bakurxevi s mxares bol o sofel ia. aqedan xevsureTSi – bar i saxoSi gadadi s sacal fexo bil i kebi.

sofel Si 7-8koml i cxovrobs, zamTarSi ki sami oj a-xi rCeBa. aqedan xel i sgul i vi T mosCans mTel i xeoba.

sul axl o warsul Si es mxarec savse iyo cxvrIT. sofI ebsac meti yuradReba eqceoda. dReski ki toxid dan bakurxevamde an saker pemde rom aaRwi o manqani T, sul 10-12 kol ometric ar aris, kargi vaJkacoba da ori saaTi j ayj ayi mai nc gi nda.

sofel s el eqtroenergi aqvs, magram ar aris aranairi sausal eba vi nmes xma mi awvdino. tel efons aq

arasdro s umuSavia. am wel i wads am gzaze manqanasac ar gauvl ia al baT. pi rvel ebi Cven var T. aqaurebi Zi-ri Tadad fexiT dadi an ki toxamde, Tumca arc iq aris mai ncdamai nc transportis mozRvaveba. kviraSi orj er Tu samj er dadi s avtobusi.

batoni biZura f i c xel auri Zvel dros ixsenebs. 85 wel s gadaci l ebul i kacia, arc et yoba wl ovaneba.

– *saxnavi mi webi Tu gaqvT, meTqi, – veki Txebi.*

– adre qersa da Wi okas vTesavdi T da mosaval ic mogvdi oda, magram mi atova xal xma qeris Tesva. puri bar i dan amogvaqs da aRar i wal eben Tavs.

kartofil i ki mogvyav. er Ti tomridan, 6-7 tomarasac ki vi RebT Tu ami ndebma mouswro. sxva aq araferia.

sofel Si vaSl i da Savi mocxaric davinaxe. di di wval ebi T gavixerxeT, Crdi l okavkasi i dan gadmovitaneT ner gebi o, meubneba batoni bi Zurada vaSl sa da mocxars mTavazobs, gasinj e, naxe rogori gemo aqvsoso.

aqaur xil s marTl ac sxvanairi gemo aqvs, Ti Tqos mJavecaa da arc aris mJave.

– adre am dr os kacs saxl Si ragaacer ebda, sad hqonda dasvenebis dro. – i mdeni cxvari gvyavda, am adgil ebSi ZI ivseteoda.

sadac cxvaria, i q si keTe da bar aqaa.

ici cxvarma ra uTxra eSmaks? ra da, me movedi da Sen aqedan unda waxvi deo.

raTa, vi Tomao?!, dac i nvi T uki Txavs eSmaks.

imi tom, romaq Seni adgil i aRar aris. saxl is oTxive kuTxe me mWi rdeba – er TSi matyl i unda davawyo, meoreSi – yvel i, mesameSi batkani unda davsva, me-oTxe ki CemTvis mi ndao.

eSmaks ufiqria, me aq, marTl a aRar damedgomeba o dgascl i a i q aurobas.

ful eSmaks! marTl ac kargi i idea. cxvarsac movamravl ebT, dovl aTsac Sevqmni T da eSmaksac gavuye-nebT j oj oxeTis gzas. lqneb, am qveyanasac eSvel os rame! kargi ki lqneba da...

SoTa maWaraSvi l



tye da erozia

sagar Tvel o kavkasionis mTavar damci re qedebs Sorisaa moqceul i, rac mis orografi is da bunebris uaryofi Ti movl enebis kompl eqss gansazRvravs. aq xSiria zvavebi, mewyerebi, wyl di dobebi, Rvarcofebi da sxva. gansakuTrebi TmasStaburiawyl ismieri da qarismieri stiqluri movl enebi T gamoweul i zaral i.

cnobil ia, rom aRmosavl eT saqar Tvel os zog rai onebSi erT heqtar saxnav mi webze, wyl ismieri eroziiT saSual od, yovel wl iu-rad 100-130 tona ni adagi i recxeba, dasavl eT saqar Tvel oSi – 150-200 tona. kokispirul i wvimebis dros es maCvenebel i 300-dan 500 tonamde aRwevs.

ki dev ufro didi ziani moaqvs qarismier erozias, gansakuTrebi T aRmosavl eT saqar Tvel os dabl obebSi, garekaxeTSi, SiraqSi, samgor-Si, qarTI is dabl obebzeda sxva.

samwuxaro satatistika, magram faqtia, special istebis daskvni T saqar Tvel oSi sasofl o-sameurneo savargul ebis 300 aTas heqtarze meti farTobi wyl ismieri da qarismieri eroziis met-nakl ebzegavl enas gani cdis.

am uaryofi Ti Sedegebis Ziri Tadi Semakavebel i faqtori tye da nargaobaa, romel icanel ebs qaris Zal asa da sicqares, zemoqmedebs misimmar Tul ebaze.

ase magal iTad, saSual o sicqaris qari tyispri dan 10-100 metr manZil ze sustdeba, xol o xeebTan SexebiT mTI ianad qreba, an misi uaryofi Ti gavl ena minimumamde mciindeba.

adami anma qarebis gabatonebul i mimar Tul ebisa da misi sicqaris Sesamci rebl ad qarsacavi da mindorsacavi tyis viwro zol ebis gaSeneba moi gona.

qarsacavi zol ebis gaSeneba eroziis sawinaaRmdegod RonisZie-bebi dan erT-erTi aqtual uri mimar Tul ebba.

qarTvel ma mecnierebma daadgines, rom saqar Tvel oSi moqmedi qarebis sawinaaRmdegod farTo tyis zol ebi aris saWiro. srul i-ad sakmaris a viwro, 4-6 mwkrivian ni zol ebi. aseTi qarsacavi sistemi smowyoba i aficj deba danakl eb

sasofl o-sameurneo savargul eb-sac i kavebs.

qveyana	1999-2008 wl ebSi bunebrivi katastrofebi T dazaral ebis adami anebis raodenoba	1999-2008 wl ebSi bunebrivi katastrofebi T mi yenebul i ekonomikuri zaral i ml n.aSS dol ari	Sesazi obunebrivi katastrofebi T gamoweul i ekonomikuri zaral i swl luri riski (ml rd.aSS dol ari)
sagar Tvel o	719246	522	4
somxeTi	297000	100	20,8
azerbaiJani	43964	170	1,5

mindorsacavi tyis zol ebis gaSenebis dros, mTavari yuradReba ni adagobriv-kl imaturi pi robedis mi xedvi T sasurvel i merqani anaxoebebis Seqmnas undamieqces.

axl o warsul Si, swrafmzardi saxeobebebi T Seqmnil ma kanaduri verxvis zol ebma saval al o Sedegebamde mi gvi yvana. am j iSis xeebiT gaSenebul i qarsacavi zol ebis umetesoba 20-25 wl is Semdeg mTI ianad ganadgurda.

tyis mel ioraciul i zegavl ena

mecnierul i kvl evi T dadginda, rom saqar Tvel oSi mindorsacavi tyis zol ebis mel ioraciul i zegavl eniT izrdeba sasofl o-sameurneo kul turebis mosavl ianoba. magal iTad saSemodgomoxrbl is namati Seadgens heqtarze 3,4 centners, anu 15%-s, qeris – 2,3 centners, – 11%, mzesumziris – 2,3 centners, – 27%-s, simindis – 4,7 centners, – 22%-s, yurZnis – 7,3 centners, – 28%-s da a.S.

qveynis maRal mTiani regionebis tyeebis mecnierul i Seswavl iT dadgenil ia, rom misi zeda sazRvar i, Ti Tqmisi yvel gan, katastroful ad dabl a iwevs. man zogan ukve 400-500 metrs miaRwia. es xel s uwyobs Tovl is zvavebis, erozias da sxva uaryofi T movl enebis gax-Sirebas. katastroful ad izrdeba damewyrl i farTobebi.

kavkasiis garemosdamcavi arasamTavrobo qsel is monacemebiT, bunebrivi katastrofebis sixSi-ris Tval sazrisiT saqar Tvel oerT-erT probl emuri qveyanaa. saerTaSoriso kvl evi Ti centriss monacemebiT samxreT kavkasiis regionSi, bol o 10 wl is gamavl o-baSi, saqar Tvel osTvis bunebrivi katastrofebiT mi yenebul i zarali i 3-j er da metad aRemateba somxeTis da azerbaijanis amave maCvenebel s.

bunebrivi katastrofebis erT-erT mTavar Semakavebel faqtors tyeebi warmoadgens, ami tom dacviTi funqciis mxriv, tyeebs, sasicocxl omni Svnel obaeni Weba.

P.S. dRes saqar Tvel oSi, ratom-Rac met yuradRebas uTmoben da uamrav Tanxebs xarj aven sazRvargareTidan Semotanil i merqiani saxeobebebis nergerbze, romel Ta umeteso-ba imave wel i wads Tu arameorewel -sve i Rupeba (mi zezi cal ke Temaa).

mindorsacavi tyeebis zol ebiT, mewyer sawinaaRmdegoo nargaobis, Tugamwaneba-gatyevebis samuSao-ebi T dainteresebul pirebs, salwi-ro pragtikul i rekomenadaci ebsa Tu proeqtebis Sedgenas da salwi-ro sargavi masal ebis SeZenis mizni T SeuZi iaT mimar Ton Jurnal is redaqclas, anweril isavtors.

tristan Cerqezi Svi i respublikiis damsaxurebul i metyeve tel : 855 397859; 39 78 59



mcenare waml avs niadags

cnobi l ia, rom erT i arTobze mcenaris erTi da i give
saxeobi s mraval j eradi Tesva-gaSeneba ar SeiZI eba. es
zogj er dakavSi rebul ia ni adagi s gamofit-
vasTan, zogj er ki i masTan, rom mcenare wam-
I avs ni adags.

vaSI is xe niadags e.w. „fI orozini T” aj e-
rebs da waml avs, ami t om daber eb ul i vaSI is
baRis gaaxal gazr daveba, vaSI is axal i nar-
gavebi T Secvl a dauSvebel ia, radgan ner-
gebi aucil ebl ad dai Rupeba. es far Tobebi
sxva xexil isTvis, an sasofl o-sameurneo
kul turebisTvis gamodgeba. vaSI is baRis
aRdgena am far Tobze mxol od 3-5 wl is Sem-
deqar is SesaZI ebel i.

sainteresoa, rom TeTri akaci i s qveS ba-
I axi ar xar obs, radgan akaci a ni adagSi ga-
moyof's bal axi s sawi naaRmdego her bi ci ds.



kakl is (nigvzi)s xe gamoyofs i ugl anss, rac xel s uSl is kartofil is, pamidvris, ionj as da sxva mcenareebis ganvi Tarebas. aseTi ve Tvis sebebi saa bevr i sxva mcenare, rogorc merqiani , i se bal axovani .

*P.S. aRnI Snul i Informaciis gamoq-
şyuññerisik s̄iññezžisik ḡakdla isik, r̄amis r̄aqshka
m̄kyp̄arññerisik s̄iññer utschimyazl̄isik r̄eqsiññeris-
kiñ ḡalr̄enññerisik s̄amirññerisik s̄eqd̄yeyad q̄abimyaz
şyaziññerisik s̄aRqebisik, r̄amqarññerisik s̄eq-
m̄sugurññerisik, isik s̄iññer s̄iññerl̄ebasññer utschimyaz
r̄isqebisik, s̄adlaç yaqññerisik s̄aRqebisik ar̄eqd̄yeyad
şyakl̄erisik 3-5 s̄eqd̄yeyad s̄eqd̄yeyad
s̄iññerisik, k̄ay s̄isqel̄ebisik „s̄it̄aññer s̄isqel̄ebisik“ ga-
m̄sugurññerisik s̄eqd̄yeyad s̄eqd̄yeyad, q̄amirññerisik
m̄kyp̄arññerisik (k̄ay q̄amirññerisik s̄eqd̄yeyad) am
q̄amirññerisik.*

*tristan Cerqezis Svi I
respublikis damsaxurebul I
metyeve*

ବାର୍ଷିକୀ



ni derl andebSi, amsterdams sa-
medicino akademiuri centris aR-
moCenam aCvena, rom futkrebi qmni-
an cil as – defesin-1, rasac ureven
Tafl s.gai rkvA, romescil aSei Zl e-
ba gamovi yenoT damwr obi sa da kani s
sxvadasxva daavadebebi s dr os, axal i
anti bi ot i kebi sadmi gamZl e infeq-

Taflos damwrobis mukurnal oba SeuzI ja

ciebi s samkurnal od dasamzadebel i
axal i preparatebi s Sesaqmnel ad.
„Cven srul ad amovxseni T Tafl is
antibaqteriul i aqturopbis mol e-
kul uri safuzvel i”, – ganacxada ams-
terdami samedicino akademi ur i cen-
trisimkyl evarma sebastian zaatma.

special isteba sinj arasi gamoikvi les Tafl is antibakteriul i aqti voba antibiotike bisamtani da damaavadebel i j gufis bakteriebi sadmi. Sedegad gamoikveTa cil a defensini – 1; igi mweris (futkris) imunuri sistemis nawil ia da mas futkrebi Tafl sac ureven.

gairkva rom Tafl s antibaqt-
riul i Tvisebebis did umravl e-
sobas swored es cil a szens.

anal i zis Semdeg mecnier ebma da-
askvnes, rom Tafl is antibaqte-
riul i SesaZI ebl obebs swored
(di dwi l ad) am cil as unda yumad-
l odeT.

es informacia cxads xdis muSa
futkris imunitetis Sinagan aq-
tivobas, rac gansakuTrebiT xel s
Seuwyobs sel eqcione rbs gamoi y-
vanon j anmrTel obisTvis ufro
sasar gebl o Tvis ebebis Tafl is
momcemi futkrebi.

ପ୍ରକାଶକ ମହାନାଳୀଙ୍କଣ

kakal i – nigozi yvel as uyvars,
xol o nigvziani kerZebi qarTul i
sufris si amaya.

ni gvzi sgul i Zal i angav s adami ani s
Tavis tvins. Zvel Taganve Tvl i dnen,
rom ni gozma di di gavl ena iqoni a
adami ani s gonebr i v ganvi Tarrebaze.

kakal i Zal i an sasargebl oa organi z-
mi sTVi s.xal xur medi ci naSi i gi daRI i-
I obi s mosaxsnel ad, Zal i s aRsadgenad
gamoi yeneba. avi ci na mas daqucmacebul
ni gozsa da TafI i s nazavs dauZl ure-
bi s sawi naaRmdegod i yenebda.

nigvzis fotI ebi xal xur medici-naSi far Tod gamoi yeneba. i gi i vni sis TveSi unda dai krifos. mas i yeneben

kakali

Cirqovani daavadebebi s dros, kanis
daavadebebi s sawi naaRmdegod, te-
rismWamel ebi s, egzemi s, tuberku-
lozi s. SeSupebi s samkurnal od.

erT Cais Wiqa daqucmacebul
fOTol s asxamen erT Wiqa mdurA-
re wyal s, gawuraven da svamen erT
sufriskovzs 3-4 i er dResi

ni gvzi s nayens i vl eben yel Si an-
ginis dros. 1 sufr iskovz foTol s
axamen 2 Wi qa aduRebul wyal s da
aduReben 15-20 wuTi s ganmavl obaSi
da svamen rogor c nayens.

kakl is nayofi kal oriul obiT
2-j er metiaxorbl ispurze.igi kar-
gia aTeroskl erozis samkurnal od,
vitami nebis da rkinis nakl ebobis
dros. nigozSi Zal ian bevri zeTia,
aZl ierebs naRvl is buSt is moqmede-
bas. igi Sei cavs A, B, C, D, vitami nebs.
yovel dRi urad 5 cal i ni gvzi smi Re-
ba organi zms ai ansaRebs.

da ki dev, ramdenime nigozs Tu
dadebT I ambaqze buzi da ko-
Ro nakl ebad SegawuxebT. nigvzis
sunsveritans CrCil i. nigvzis su-
ni mcire dozi T sasi amovnoa, meti
raodenobi T ki ZI ier Tavis tki-
vil si weweys.

I monaTi, romel ic qvas qvaze ar tovebs

cudi kveba bevr daavadebas i wvevs. maT Soris Tirkmel ebSi kenWebis dagroveba, erT-erT i yvel aze gavrcel ebul i daavadebaa. kal i forniel i mecnierebis kvl e-vebiT daamtkicda, romxil iswven-Si arsebul i nivTiereba – citrati Tirkml is kenWebis warmoqmnas aferxebs. misi regul arul i mi-Rebis SemTxvevaSi ki nal eqebsa da qvebis dagrovebas uSI is xel s..

yvel aze met citrits Sei cavs I moniT, ufro sworad misgan damzadebul natural uri I monaTiT, mkurnal obdnan kal i-forneil i mecnierebi am seniT daavadebul pacientebs. Sedegi sasi-xarul o da saimedo gamodga. Tirkmel ebSi qvebis warmoqmnis procesi ramdenj erme Semcirda.

eqimebi aRni Snaven, rom TirkmeI ebSi kenWebis dagrovebis profil aqtikisTvis aucil ebel ia axl adgamowurul i I moniT damzadebul i I monaTis regul arul ad miReba.

sayuradReboa isic, rom erTxel Tuwarmoi qmna Tirkmel Si kenWi, rogorceqimebi aRni Snaven, i gi daSI is Semdegac ki xel axal i warmoqmnis

Tvi sebas inarCunebs. ami tom yvel a „gankurnebul i” pacienti sgan saprofil aqtikod eqimebi daJinebiT moi Txoven, rom maT regul arul ad miRtvan saxl Si damzadebul i naturaluri I monaTi.



I monaTis dasamzadebel i recepti

1 I moniT, 2-3 kovzi Cais kovzi Saqr is fxvnil i, 0.5 l itri aduRebul i wyal i.

momzadebis wesi: I mons basri daniT unda gavacal oT cedra, gamovwuroT wveni da gavwuravT sawurSi, raTa kurkebi ar gayves. Semdeg cedras, wvens da Saqars er-Tad vaTavsebT WurWel Si da vas-

xamT aduRebul wyal s, vaCerebT erT saaTs, Semdeg vacil ebT cedras (i se I monaTi gamwardeba), vacivebT da I monaTi c mzadaa.

suni s dakonserveba

gsurT gazafxul is yvavil ebi s surnel is Senaxva-dakonserveba? es SesaZI ebel ia da Tanac i ol ad. yvavil obis dros dakrifteT var-dis furcl ebi, Caal ageT minis farToqil aSi damaril i fena fena daayareT. qil a mWidrod daxureT da maci varSi Sei naxeT. qil i s gaxnisas oTaxi coxal i vardis saamo surnel iT ai vseba.

al ubal i _ uebari wamal i

amerikel ma mecnierebma, roml ebmac Sei swavl es al ubl is samkurnal o Tvi sebebi, daadgines, rom Turme, es mcenare samkurnal o preparatebze ukeTesad acxrobs mwave tki vil s. mecnierebma isic daadgines, romal ubal i uebari sa-Sual ebaa arTriftan sabrZol veI ad. igi efektiani a wiTel i qaris da gul -sisxl ZarRvTa daavadebebis samkurnal odac.

wignidan, tye da adamiani

Cveni Jurnal i agrZel ebs rubrikas: „saqarTvel os agronomi is mesaZirkvl eni”, sadac SesaZI ebl obis fargl ebSi moviZiebT informacias immoRvawetA Sesaxeb, visac di di wvl II I mi uZRvi T saqarTvel os sofi is meurneobaSi, mi viwyebul ni arian da maT Sesaxeb TI Tqmisi arafeli viciT.

zaqaria erisTavi

mefeerekI es STamomaval i, cnobiI i qarTvel i generl is giorgi erisTavis SviI i, dai bada 1880 wel s iuridiul i ganaTI eba odesaSi miRo.

duSeTis mazraSi qsnis xeobaSi 1902 wel s gaxsna pirvel i sasofl o sameurneo skol a Tavisi sacdeI i nakveTebiT. am skol am Tavisi arsebobis manZil - ze 150-mde kval ificiuri muSa gamouSva sofi is meurneobis sxvadasxva dargebSi. mas Tavis mamul - Si, romel sac 862 desetina miwa ekava, gaSenebul i hqonda xexil i, amerikul i vazis sanerge, mohyavda bostneul i kul turebi. gamocdil ebasa da codnas uziarebda sofi is gl exobas. man pirvel ma gaxsna sakredi to banki da piradi saxsrebi dan Seitanana Msvnel ovani Tanxa.

samwuxarod, am Rirseul i mamul i SviI is cxovrebi-sa da mraval mxrivi moRvawebis Sesaxeb Zal ze Zunwi monacemebebi moi poveba.

vasiI j afariZe

dai bada 1872 wel s onis rai onSi. ymawvil obis periodSi muSaobda zestafo ni s rai onis sof el saqaraSi agronomvl adimir starosel skis mier 1890 wel s daarsebul vazis sanergeSi.

saqarisamerikul i vazis saner gemdamasTangaxsnil ma kursebadidi rol i Seasrul a saqarTvel os adamTel amierkavkasiaSi fil oqserasagan venaxebis gadarCenis saqmeSi.

vasiI j afariZis iniciativi T imereTis sofi ebSi moewyo saCvenebel i nakveTebi, sadac vazis gaSeneba xdeboda namyeni nergiT, rasac fil oqsera ver azi-anebda. aqt i urad monawi eobda awaraSi mowyobil i sofi is meurneobis orwl i anis skol i s muSaobaSi.

intensiurad swavl obda WraqiT dazi anebul venaxebis da Sabiamni T waml obis Sedegebs. mTel i si cox- I i s manZil ze emsaxureboda sofi is meurneobas. mu-Saobda agronomad vanis rai onSi, Sorapnis mazraSi, argveTaSi. gardai cval a 1944 wel s.

gsurT, iyoT warmatebul agrobi znesSi!

gindaT, i codeT si axl eebi Tanamedrove sofI is meurneobis, sasofI o-sameurneo teqni kasa da teqnol ogiebi s Sesaxeb? nakl ebi danaxarj ebi T moi wi oT kargi mosaval i dami i RoT meti mogeba?

rogor Sei ZI eba uaxl esi meTodebi Ta da mcir e danaxarj ebi T ni adagebi s ganoyi reeba, er ozi ul i procesebi s Semci reba?

i codeT, ra si axl eebi a Sxam-qi mi katebi s bazar ze? gaecani T bi ol ogi ur i mi waTmoqmedebi s si axl eebi?

gsurT, daubr undeT sofel s da moawyoT Tqvni meurneoba?

gaxdi T saqarTvel oSi er TaderTi agraru i Jurnal is „axal i agrarul i saqarTvel os“ xel momweri!

Jurnal is gamowera Segi ZI i aT „axal i agrarul i saqarTvel os“ redaqci aSi, qvemoT mi Ti Tebul misamartze, an „saqpresi“ rai onul organizaci ebsi.

xel mowris er Twi tani paketis Rirebul eba 60 laria. Tqven mTel i wl is ganmavl obaSi uzrunvel yofil i iqnebi T sawiro da saintereso informaci iT.

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el . fosta: agroasca@gmail.com



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ARTIGLIO, PINOCCHIO, ATTILA

evropul i sasofl o-smeurneo teqnikis mwarmoebel i kompani ebi s dili eri saqarTvel oSi SpS „MSOF-
LIO teqnika“ gTavazobT ital iuri firma **MASHCIO-GASPARDO**-s warmoebis svedasxva modifikasi-
cias Rrmadgamafvieri rebel universal ur aggregatebs, romel ic aRadgens, aTwl eul ebi s ganmavl obaSi
araswori damuSavebis gamo degradirebul i ni adagis dazi anebul sistemas, SI i s mi wi s qveda fenebis
datkepni l Sreebs, aumj obesebs ni adagis tenianobasa da haergamtarianobas.

ARTIGLIO, ATTILA da PINOCCHIO _ es aris uax-
I esi mowyobi l oba, romel sac SeuZl i a datkep-
nili i ni adagi 45-65 santimetrissi Rrmeze daamu-
Saos da amasTan erTad, gaaf xvieros misi zeda
fena _ Sei Tavsos frezis (diskis) moval eoba.

Rrmadgamafvieri rebli is gansxvavebul i mode-
lebis aggregatireba Sei Zl eba svedasxva simZ-
l avris traqtorebz.

misi upiratesobebia:

- 1) eqspl utaci i simartive.
- 2) ni adagis Rrmad damuSaveba da daqucmaceba;
- 3) zedapiri s gaf xviereba da mosworeba;
- 4) maRal mwarmoebl oba (traqtoris si Cqare
6-10 km/s);
- 5) tradiciul i damuSavebis metodebTan Sed-
rebi T naki ebi energetikul i danaxarj ebi da
sawvavis mni Svnel ovani ekonomia.

Cvens mier SemoTavazebul i aggregatebi da mom-
saxurebis xari sxi udavod mogewonebaT, radgan
vici T, rom mi wi s yovel i nakveTi unikal uria da
maT **ARTIGLIO, ATTILA da PINOCCHIO** uzadod daa-
muSavebs. dabej i Tebi T gi rCevT, gamoi yenoT i gi
Tqvens meurneobaSi ! darwmunebul ni varT, kmayo-
fil i darCebiT!

