

**AGENCE JAPONAISE
DE COOPERATION INTERNATIONALE
(JICA)**

**MINISTERE
DU DEVELOPPEMENT
AGRICOLE**

**ETUDE DE DEVELOPPEMENT DES OASIS SAHELIENNES (EDOS)
EN REPUBLIQUE DU NIGER**



**Jagoran horarda mazamna karkara bisa ga
husa'o'in raya hilayen noma**

Juillet 2007

AGENCE JAPONAISE DES RESSOURCES VERTES (J - GREEN)

Élaboré par l'ONG ADA dans un cadre contractuel signé avec EDOS

Abinda ke ciki

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Gabatarwa :

A Nijar, mugun yanayi na tabarbarewar gandun daji na fuskantar ci-gaba mahi a-ala sabi da bacewar wasu itatuwan, game da abkuwar hamada da kuma yadda ake amfani da su.

Zaizayewar ƙasa da rishin itatuwa ya sa ta cikin mawuyacin hali na rishin kariyar iska da gudanar ruwa.

A game da wadannan al'amuran dake tada hankali, gwamnatin Nijar, gundumomi da masu hanu da shuni (Puroje da O.N.G) dake kula da bunƙasa arjikin karkara na bada ƙoƙari da samun mallake wannan bila'i.

Cikin wannan guri ne na nazari don bunƙasa arjikin matsayin ruwa na cikin yankin hamada (EDOS) da hadin guwar babbar ma'aikatar dake kula da gandun daji ta Tawa (D.R.E) suka shirya ƙarfafa bunƙasa masu amfani da kare ƙasar noma na cikin yankin da suke ayukka wanda shike bisan shine ake bada wannan horo.

I. Fasarar manuhohi :

1.1. Noman itatuwa da ake amfani da yayansu :

Noman itatuwan da ake amfani da ya-yansu hanya ce ta hada husa'o'i da aka iya yin amfani da ƙasa ta hanyar samun abincin dabobi da amfani da su kansu itatuwan

Ana iya bin hanya da yawa wajen yađa wannan aiki :

- ✓ Bunkasa dashen itatuwa (don a samu itacen ƙuna, ko wadanda aka iya amfani da su)
- ✓ Dashen itatuwa da rayarda wuri (fadamu ko cikin gonakki)
- ✓ Dashen itatuwa don shaida wuri (iyakar gona da idda hurumi)
- ✓ Dashen itatuwa don kare itace da muka gada na asali
- ✓ Dashen itatuwa don kariya (aguwa da masu kare iska)

1.2. Husa'o'in kariya da tadinon ƙasa :

A jimirce dubarun da ake kokowa da su don kare zaizayewar ƙasar noma da irin matsalolin da take fuskanta.

II. Hanyar zaizayewar ƙasa :

Yankan faruwa ta hanya biyu :

Baringo : wanda iska mai karfi da faduwa ruwa mai yawa yakan hadasawa

Gyabbu : wanda gudun ruwa da iska ke hadasawa.

III. Matsalolin dake sa zaizayewar ƙasa :

Manyan matsalolin sun kasu kashi biyu :

- Tabarbarewar yanayi ta fuskar (rishin ruwan sama, ruwa masu yawa da mugun iska);
- Da amfani da mutanen karkara suke (ta hanyar noma, kashin itatuwa ba bisa ka'ida ba da kuma wutar daji da sauransu).

IV. Abinda zaizayewar ƙasa ke iya hadassawa :

1. Yana hana samun duk wata riba ta amfanin ƙasa
2. Yana sa kwancin ruwan ƙasa ja da baya
3. Yana hana samun amfanin gona da isasshen abincin dabbobi
4. Yana sa yan ƙasa hita ƙasashen waje

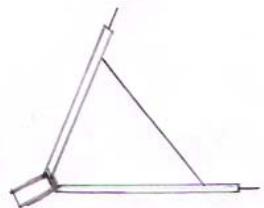
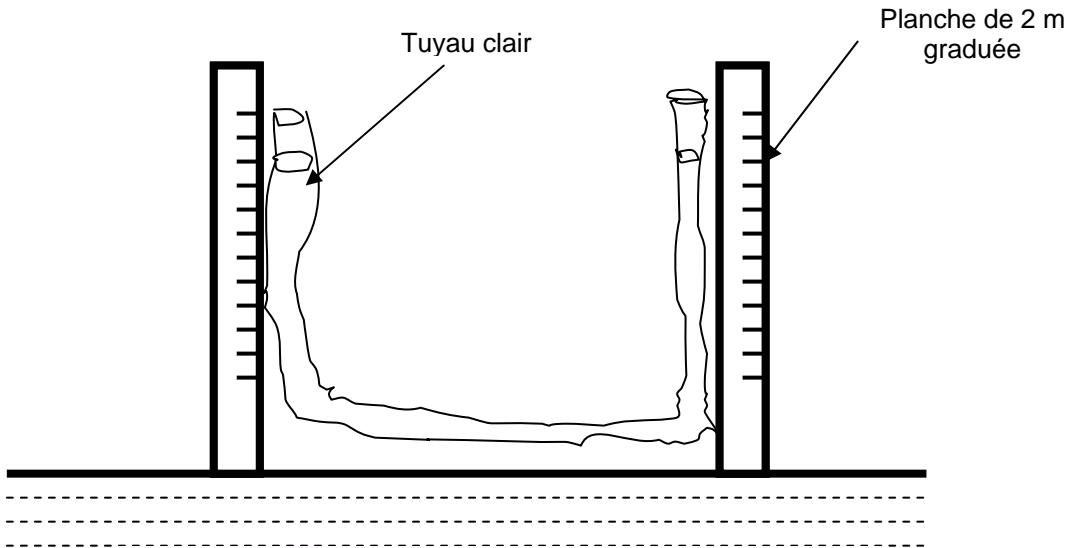
V. Kokowar da ya kamata a yi don kare zaizayewar ƙasa :

Ana iya ɗaukar hanya biyu :

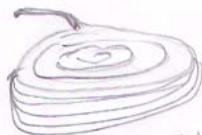
V.1. Dubarun da ya kamata abi don amfani da kariyar ƙasar noma :

Wannan ya kumshi husa'o'in kera wasu abubuwan aiki wañanda ake iya kariyar gudun ruwan ƙasa dan su zo daidai yadda za su rayuwar shibka.

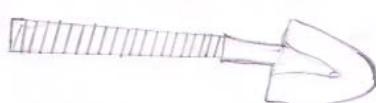
Ana iya bi ta hanya, zaben husa'ar da za a aiki da ita ko kuma sanin shi wurin wace matsala ta gareshi.



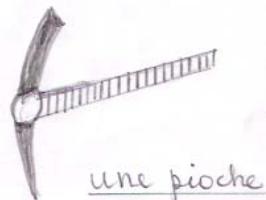
Un compas



Une corde



Une pelle



une pioche

V.1.1. Jerin duwatsuna :

Mataki wanda aka ḍauka wajen kare zaizayewar kasa ga hilin da baida cikakken gangare (baringo, ko wanda adda dutse),

A kan jera duwatsu duk kewaye da fadīn hilin.

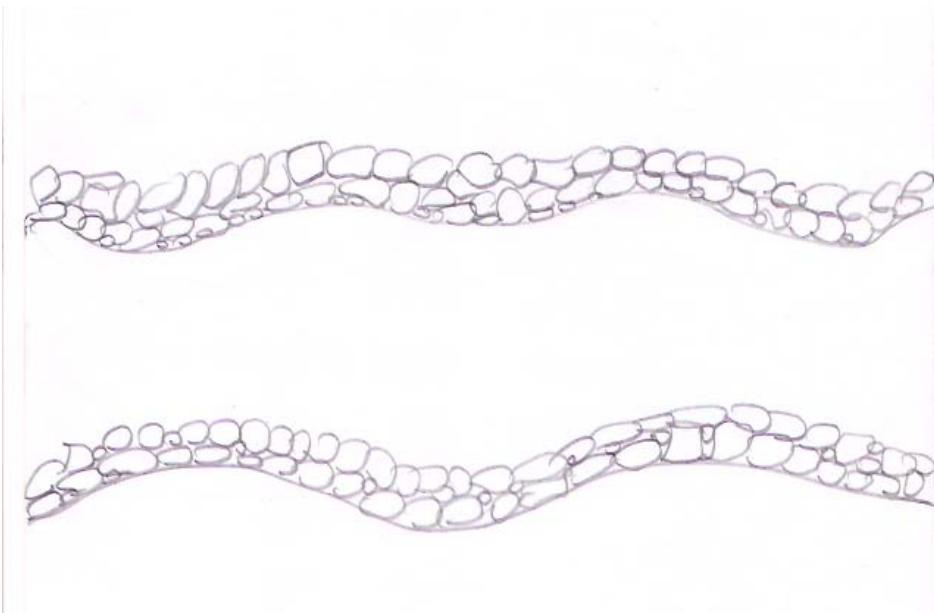
Tsawo :

- 30 cm sama
- 40 cm kasa

- Tsayon ya kasance yadda fadīn hilin yake

Amfanin jerin duwatsuna :

- Yana tsaida ruwan kasa masu gudu
- Yana kare bugun iska da tsaida duk wasu hakukuwan da ruwa ke jayowa
- Yana sa a samu wurin shibka cimaka ga wurin



V.1.2. Jerin duwatsuna dan samun wurin kiwo :

Haya ce wadda ake d'auka don kokowa da zaizayewar kasa bisaan tuduni.

Akan harhadā wasu abubuwa kamar duwatsu da ake jerawa gwargwadon yadda hilin ya kasance.

Wannan jerin duwatsuna ana yin shi ne cikin wurin dake da dutse kenan wurin da baya nomuwa. Akan jera duwatsun daidai yadda mikewar wurin ta kasance. Akan sa 20 m zuwa 30 m tsakanin ga yadda wurin ya kasance. Na farko 5 m dake bima jerarraki sai zama cikin kasa.

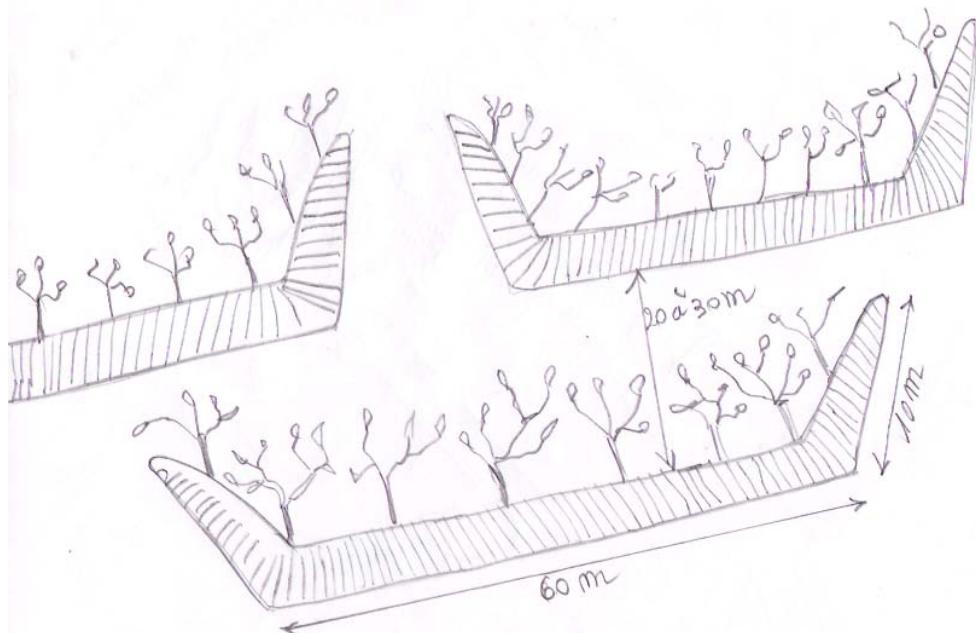
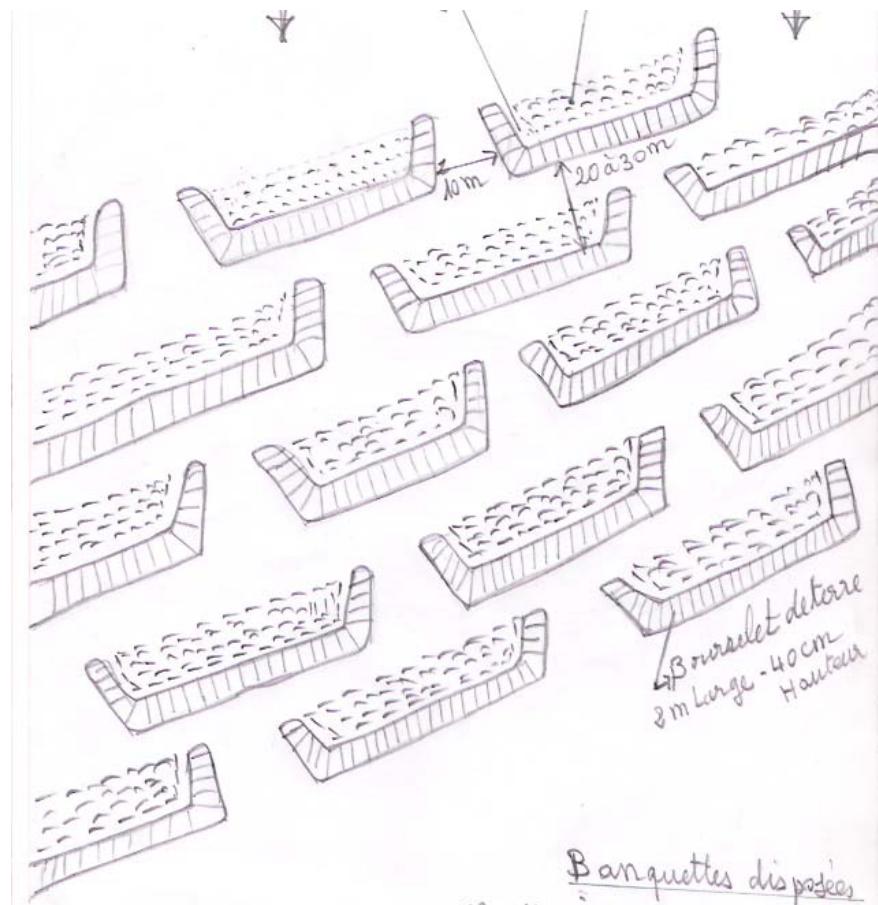
Tsawo :

- tsawo 60 m
- sama (20.70 cm)
- kamun hannu 10 m kowane (kamu 2)

amfanin jerin duwatsuna don samun wurin kiwo :

- ✓ tsaida ruwan dake gudu wuri d'aya
- ✓ sawar ruwa su ratsa kasa yadda ya kamata a cikin dukan hilayen

✓ samun wadatatar ciyawa don abincin dabbobi.



V.1.3. Ganuwa :

Mataki ne wanda ake d'auka don kare zaizayewar kasa ta wurin da ruwa ke gangarawa.

Akan jera duwatsu ta hanyar yadda wuri ya kasance. Akan aza mayan duwatsu gaba da baya da tsaka a cikin gurbin da kananan duwatsunan.

Tsawon ganuwa zai kasance daidai da wurin yadda za shi dacewa.

Tsawo :

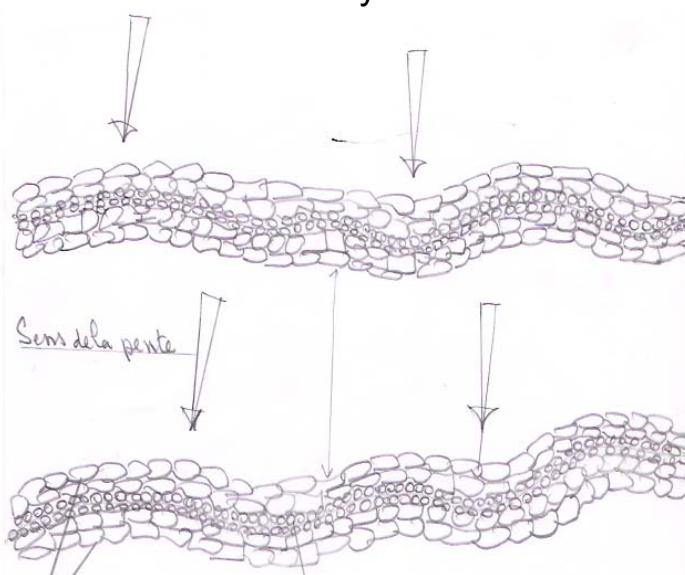
- Tsawon sama : 50 cm
- Fadī : 30 zuwa 40 cm
- Tsawon sama kamar yadda ya kasance. Ana iya ci gaba da ita ko kuma a tsaya yadda ya kamata.

Nisa tsakanin ganuwa zuwa ganuwa sai a bi yadda wurin ya kasance.

Daga saman gangare 3 m zuwa 5 m daga kasan mazubar ruwan 12 m zuwa 20 m.

Amfanin wannan ganuwar :

- takan hana ruwa zuwa da karfi
- ruwa na gudu a hankali
- ta na sa a samu kasa ta tsaya har a samu hili
- sai a samu wuri mai yawa da ake iya shibka abinci
- tana sa a samu itace su tsaya



V.1.4. Kushewar shibka ittatuwa :

Dubarori ne da amfani da su don magance matsalar zaizayewar kasa da ruwa suka hadassa, kuma kan wurare masu mugun gangare ake yinsu.

Wajen sarrafasu akan gina ramu daidai tsawon hilin da ruwa ke gudu.

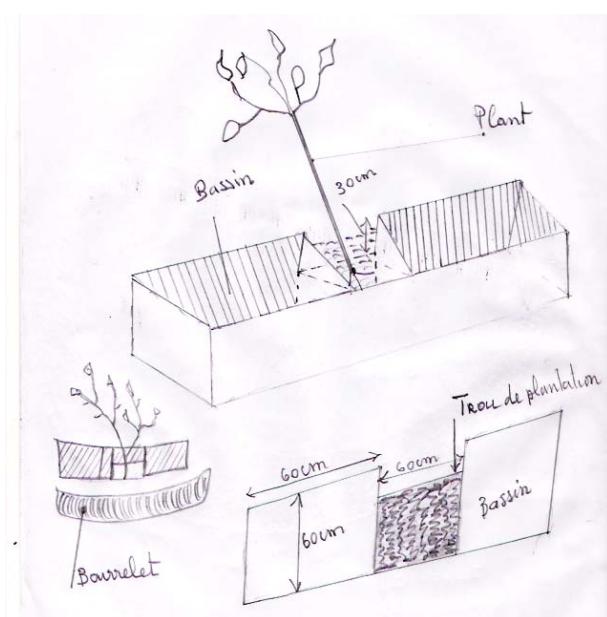
Ramun sun kumshi wani hili a tsakiya don dashen icce, da gagarwa mai kamar ta jeren dutsi. Kasar da aka fido akan zuba ta bisa gefen rami.

Tsawo :

- tsawo 3 m
- sama 0,6 m
- zurfi 0,60 m
- nisa tsakanin kuyya da kuyya : 1 zuwa 6 m
- nisa tsakanin ramu : 4 zuwa 6 m

Gurin kushewa :

- rage gudun ruwa mai hana zaizayar wuri
- samun ruwa su ratsa kasa
- samun wurare masu aikatuwa
- kyautata yanayin wuraren noma tare da habaka amfanin noma
- samun damar habaka ittatuwa da bunkasarsu cikin gaugawa.



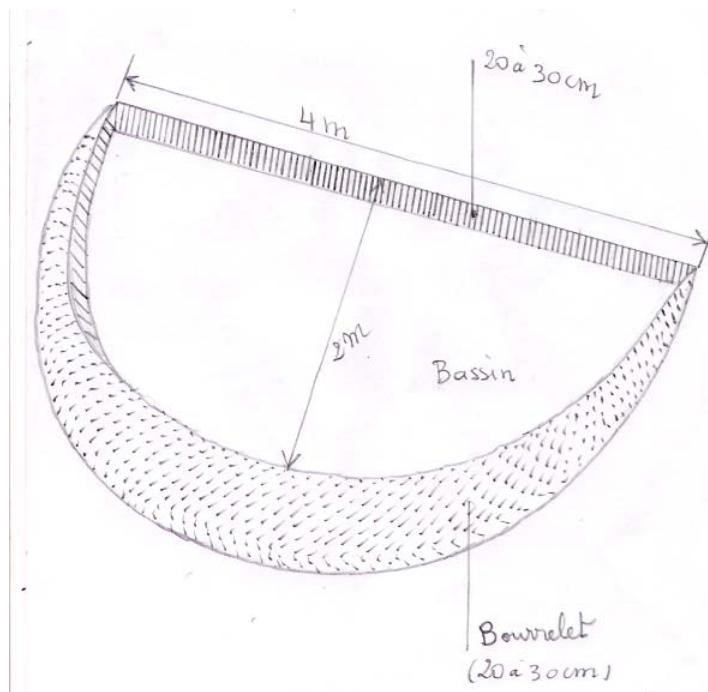
V.1.5. Rabin wata :

Mataki ne wanda aka d'auka don kokowa da zaizayewar kasa, mafi yawa ga hilayen da ba su da cikakken gangare.

Aiki ne da baida wuya, sai ayi shayi kwatamcin rabin wata.

Sai a ja layin rabin wata daidai kwatamcin gudun, gwalgwadon fadin wurin.

A tsakiyar kowane rame ana iya shibka itatuwa

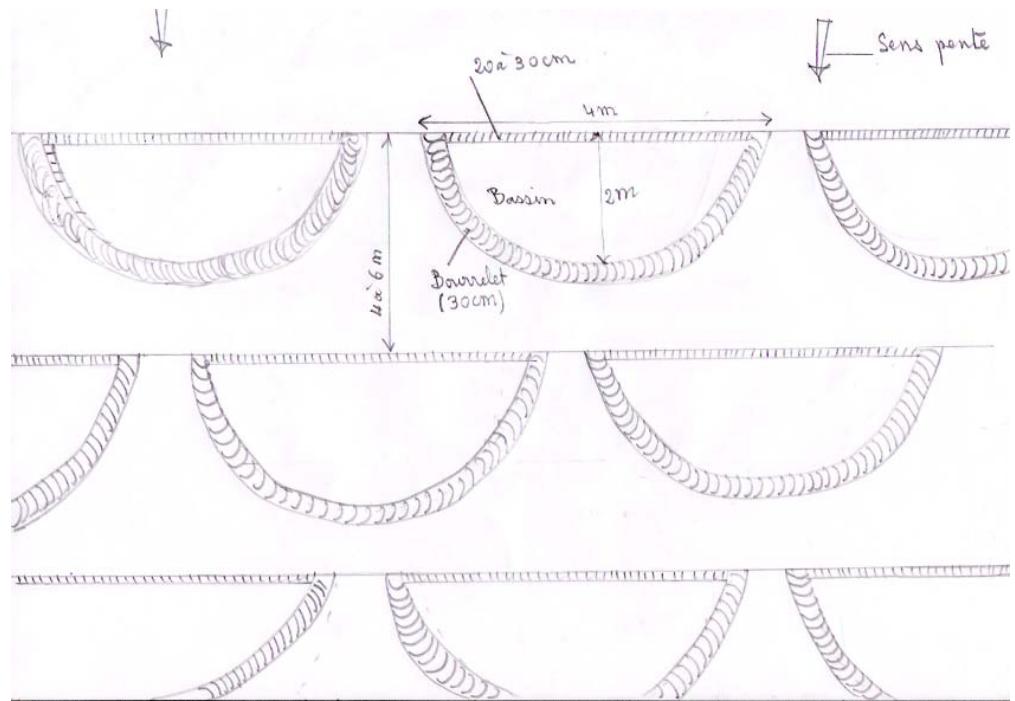


Tsawo :

- kewayen : 4 m
- surfin rame 20 zuwa 30 cm
- tsakani da rabin wata zuwa wani 2,5 à 4 m
- tsakani doron rabin wata zuwa wani : 4 zuwa 6 m

Amfanin rabin wata :

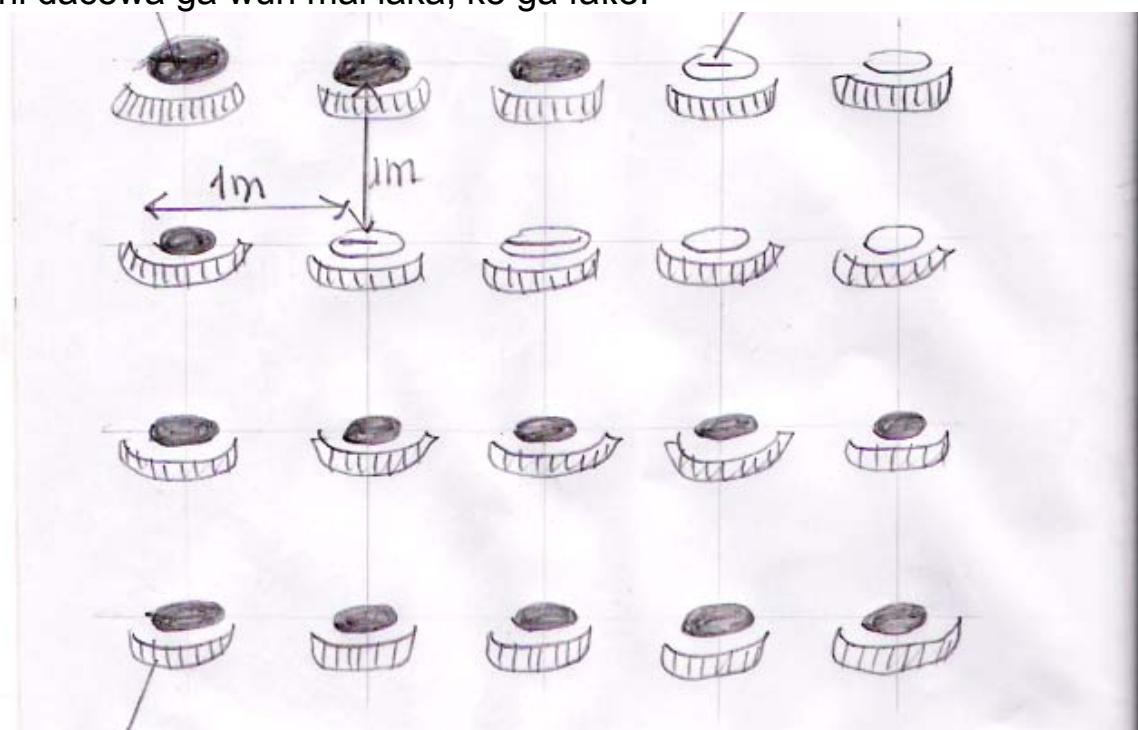
- ruwa in sun zo da gudu sai su watsu da kyau
- yana tsaida ruwa ga cimaka da aka shibka
- yana hana ruwa yin gyabbu ga wuri.



V.1.6. Tassa koko zaï :

Husa'a ce ta galgajiya da manoma ke aikatawa tun a da. Ana gina ramu ne cikin lokacin rani cikin gonakai. Ramu masu fadîn cm 10 zuwa 15 cm, tsawon nasu ma hakanan. A na sa tsakani kamar 1 m na kuyya. Amma ana iya canza rsakani, misali kamar wajen shibkar (hatsi, dawa, gujiya da sauransu).

Kamar hili mai fadîn eka guda, ana iya yi mai rame dubu 8.000 zuwa 10.000. sun hi dacewa ga wuri mai laka, ko ga fakö.



V.2. Mattakai na ainahi don kare wuraren noma :

Wađannan dubbarori sun ūmshi ire – iren shibkar ittatuwa da saka wasu ire – iren cawa don bunqasa ittatuwa da sauransu.

Akan yi amfani da su don ūrfafa wasu ayukkan da suka danganci kariyar zaizayar ūsa.

V.2.1. Husa'o'in renon ittatuwa da shibkarsu :

Wađannan husa'o'in sun kasu kamar haka :

V.2.1.1. Pepiniyar :

Wuri ne inda ake kula da renon ittatuwa daga ranar da aka shibka su har zuwa girmansu.

Tsawon lokacin da ittatuwa ke ūuka cikin pepiniyar kafin su girma ya danganta da abubuwa kamar haka :

- irin icce (masu saurin girma ko masu ūukar lokaci)
- ingancin ūsar da aka yi amfani da ita wajen shibka
- tattali (ban ruwa, fitarda miyagun hakukuwa)
- lokacin shibka shine daga watan januari zuwa yuni.

Akan samun marenar ittatuwa iri – biyu :

- Marenar itace ta dindindin :

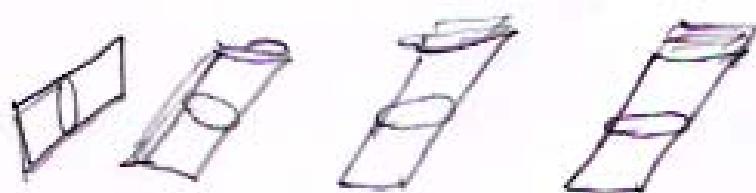
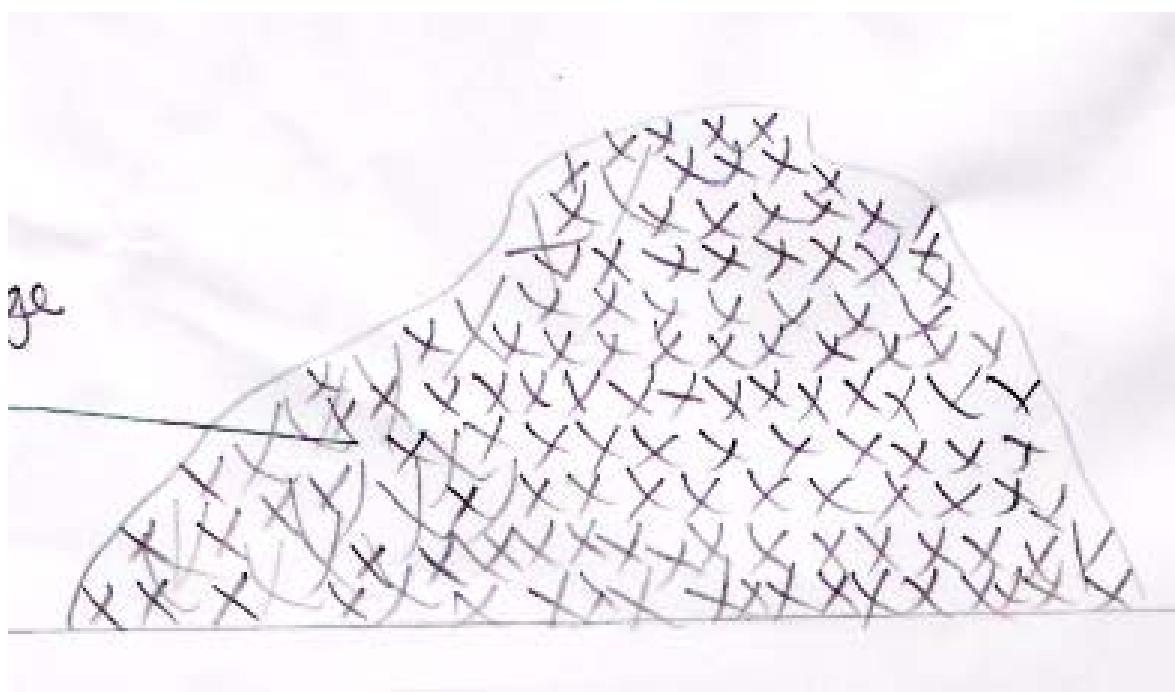
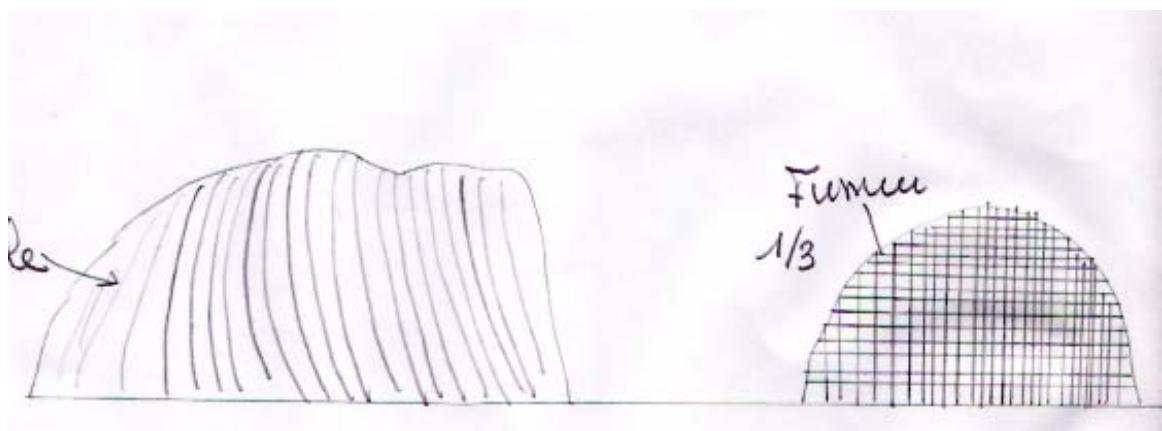
Ana yinsu domin ayyuka masu ūukar shekkaru masu yawa ko don kansu a gundumomin dake da matsalar kafa wuraren renon ittace.

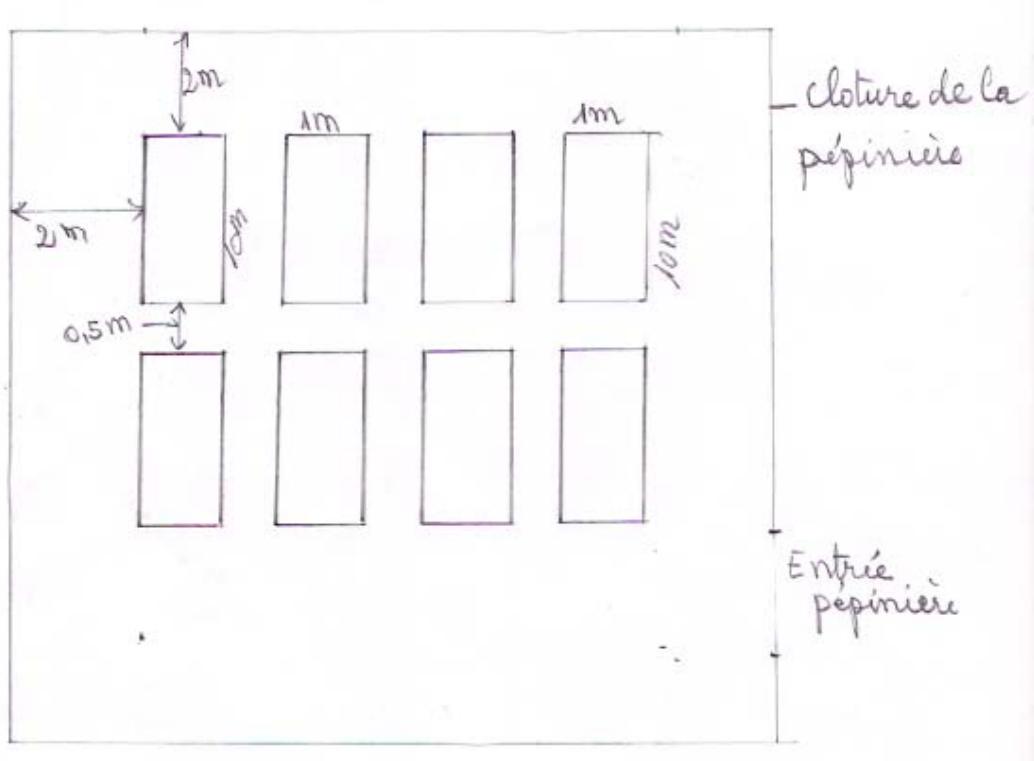
Ana kafa wađannan marenar ittacen don tattalin itace masu ūimbin yawa

Kannanan marenar itace :

Ana kafa su cikin gajeren lokaci, kuma kusan wurin da za a shibkasu.

A riķe da ba wasu manyan wurare wurare ne ba kamar marenar ittace ta dindindin.





V.2.1.1.1. Takardar bada bayanin renon itace

Mi ya kamata a yi ?	Kařa za a yi ?	Dalilan da suka sa a yi haka ?
1. Zaben wurin da za a kafa marenar itace	Hilin ya kasance maras gangare kuma mai shanye ruwa	- Rage hanyoyin zaizayar kasa
	Ya kasance a kowane lokaci ana iya shiga cikin marenar ittace	- Rage mutuwarr ittacen wajen daukar su
	Samun inganttar kasa kuma wadda za ta iya isa wajen aikin	- Samun damar hada kasar shibka maras tsada
2. Gyara da tsara fanganlan shibka ittace	Kowane fangale ya yi 10 m na tsawo, 1 m sama a sanyi 0,5 m a tsakaninsu.	- Bada damar samun hilin kai da kawo wajen yin aikin reno
	Daukar mattakai da za su ba ruwa damar gudu tsakanin fanganlai	- Ragge ruwan dake iya kwantawa a wajen ba ittatuwa ruwa ko ruwan sama masu fađuwa.
	A saka abubuwan da za su ragge karfin iska	- Kokowa da ragge iska mai karfi
	A kewaye wurin da kyau (shimgi)	- Kokowa da banar bissashe
3. Shirya garwayen kasa da taki	A rairaye kasa mai gaurayen taki don fitadar da kazarma	- Don sauřařa cikin ledodi da samun saurin tsimar taki
	A gauraya kasa da taki kamar haka : - matattar kasa : rairai 50 % taki 50 % - kasa mai rai : 2/3 na rairai, taki 1/3 - kasa mai rai sosai : ba ta buřatar gaurayen taki	Don samun cikkaken gaurayen âsa da taki

Mi ya kamata a yi ?	Kařa za a yi ?	Dalilan da suka sa a yi haka ?
4. Cika ledodi	- A yi amfani da kwankunan tumatir wajen cikka ledodin da gaurayen taki kuma kar a aje su karkace	- Don samun yanayin āwarai ga irin da aka shibka
	- Da zaran ledodi sun cika a tsatsage su kafin a ajiyesu	- Hana wurin da iska ke zama cikin leda kuma ledodi su tashi tsaye tsap
5. Shibka irri	Bada ruwa sosai kwana 10 kafin a yi shibka cikin ledodi	- Don bada dama ga mugunyar ciyawa su fito da gaugauwa
	A fidda miyagun hakukuwa ga ledodi kafin a yi shibka	- Don hana miyagun ciyawa hana shibka ta habaka
	A fidda duk wata kazamta ga ledodin da wani abu mai tsini	- Don daidaita wurin da za a ajiye
	A saka āwara 2 ko 3 na irin da ya nuna sosai a tsakiyar leda	Taimakawa wajen fitowarsu
	A rufe irin da kasa mai gaurayen taki ba tare da an danne wurin sosai ba	Don kada iri ya hayo sama bayan an bada ruwa
	In son samu ne a ba irin ruwa da injin na rataya a bai ko da arozuwar	
6. Tattali da kula da lafiyar itace	Kariya ga miyagun āwari	Don hana banar da miyagun āwari ko halittu ke iya hadasawa
	- A ragge wasu raffun icce	Don ba icce damar ya habaka da sauri
	- A yi rufuna da haki ko ciyawa daidai da yanda tsirai ke bin kasa	Don kariye ittacen daga zafin rana
	- A zan ki ragge unar da aka yima ittace lokacin da suka āarin girma	Ba ittatuwan damar yalwa cikin yanayin āwarai
	- A noma kewayen ittacen lokacin da akwai sanyi ko rana kadan	- Don hana saiwar wasu ittatuwa shiga cikin kasa
	A bada ruwa sosai safe da marece	- Don tsaida sanyi da raba da hana yalwar anoba
	Ragge ban ruwa da ketare wasu kwanakin wata ādaya kafin a yi shibka	- Don su yi sabo da yanayin da za su girma cikinshi.

V.2.1.2. Iri :

➤ Zaben iri

Ya kamata a zabi iri mai kyau wanda ya nina kuma ya bada iri da yawa

➤ Tabin yayan

Ya kamata a san lokacin ninar dīyan itatuwan tun da farko.

Ya kamata a hudo dlyan itatuwa da suka nina daga uwar ice ta hanyar shinfiđa tanti. Kar a tsintse dlyan iccen da suka fađu kasa.

Kolda, shanya da gyara koyar itatuwa :

Kolda shine hidowar diyan itatuwa daga cikin kolfarsu idan sun bushe.

Matakkan da aka đauka wajen kolda diyan itatuwa shine : daka, ko jiđa kolfar cikin ruwa sannan a fasa.

Bayan an kolde su sai a barsu su bushe tsawonb kwana 2 ko 3.

Tadinon iri :

Ya kamata a ajiye iri wurin da babu zahin rana kuma a kareshi daga wasu kwari, tsuntsaye ko kusa.

Zaben iri :

Zaben irin itatuwan da za a dashe ya danganta ne ga duba wurin da kowane iri ya fi dacewa a sa shi (duba kasa wurin) da irin da mutane suka buđata.

Zaben iri :

Zaben irin itatuwan da za a dashe ya danganta ne ga duba wurin da kowane iri ya fi dacewa a sa shi (duba kasa wurin) da irin da mutane suka buđata.

Neman iri :

Abu na farko da ya kamata a sani shi ne lokacin da yayan itace ke nina.

Abin so ne da a fitar da yayan daga uwarsu ko a tara wani tanti a kakabosu daga baya a tsince su a kasa.

Fitarda da iri, busardashi da gyarenshi

Fitarda iri aiki ne mai buđatar rabba kwayar iri da yayan icce kuma wanda ya bushe ake amfani da shi.

Hanyoyin fitarda da iri sun gama da dakke irin, ko gununnutsa shi ko saka shi cikin ruwa.

Da zaran an fitarda iri sai a shanya shi a wuri mai kyau tsawon kwana 2 ko 3.

Adanon iri :

Abin so ne da kiyaye aje iri cikin rana, kuma a đauki mattakan kiyaye shi da miyagun kwari, tsuntsaye ko wasu halittu dake iya lalatashi.

Zađen ingantaccen iri

Zaben irin da za a shibka ya danganta da :

- yanayin ƙasa (irin mai iya jurewa ne ?)
- irin da masu shibka ke so
- gurin da aka sama gaba (reno ko kariya da sauransu.)

Amfani da iri :

Amfani da ake yi da iri, ya danganta da kowane iri.

Iri mai tsauri (prozo) akan ɗauki matakì kamar :

- Da ruwan zahi :
- Idan ruwa, ya fara tafassa, a aje tukunya a ƙasa, sannan a zuro irin ciki kuma a like tukunyar har hucewar ruwa. Wannan dubara akan yi ta ga irin : prozo, akono.
- Tsamawe cikin ruwan sanyi :
- Kwana guda akan sanya irin cikin ruwan sanyi
- Fashi ko huda :

Fashin dīyan icce ko yin wata ƙofa domin cimma ƙwayar dīyan.

Misali : Magariya

Wasu irin dīyan itace basu buƙatar komi bayan a shibka su su hita

Misali : Yar makka ko dogon yaro.

V.2.1.3 Dashe

Fasara

- Dashe : hanya ce ta maida hili tsanwa ta fuskar itatuwa.

Husa'o'in dashen itatuwa da anka hi ba ƙarfi anan cikin Nijar su ne :

- Dashe – dashe : binnewa ne cikin ƙasa wasu tsire – tsire kamar reshe ko sayye da aka hiddo da wuri – wuri don suma su rayu su bada itatuwa
- Shibka da ake yi nan take : ya-yan itatuwa ne da ake binewa cikin ƙasa a barsu su hito da kansu.

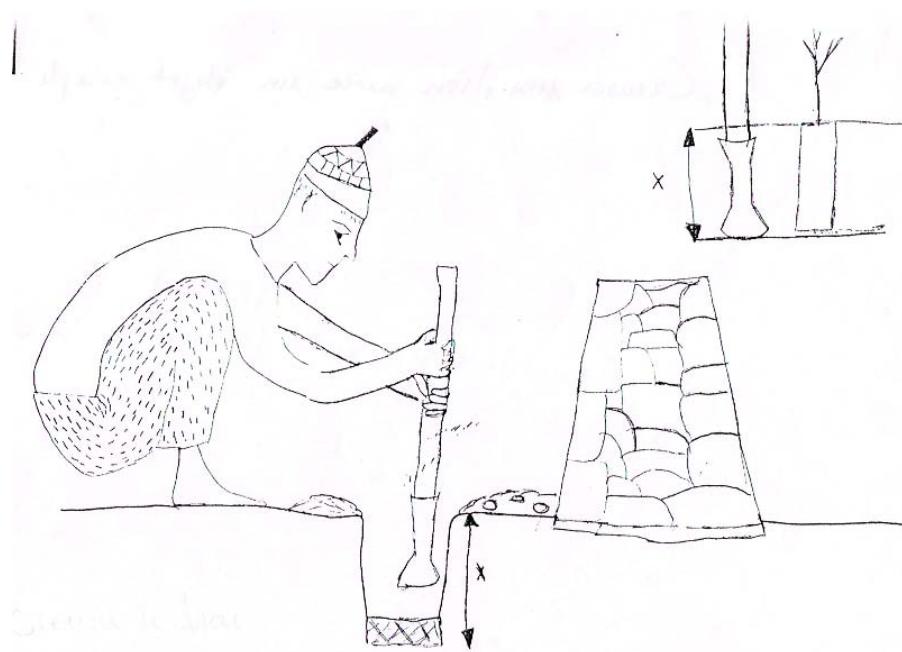
V.2.1.3.1 Shafi na musamman na husa'o'in shibka :

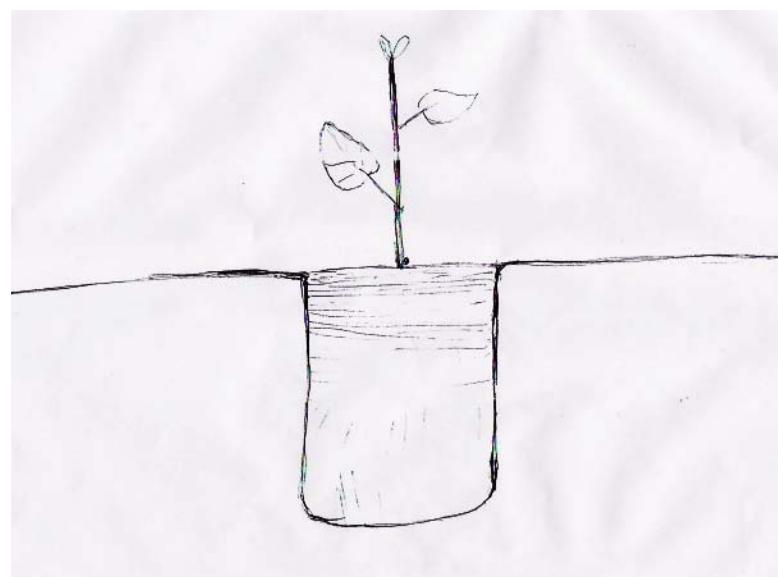
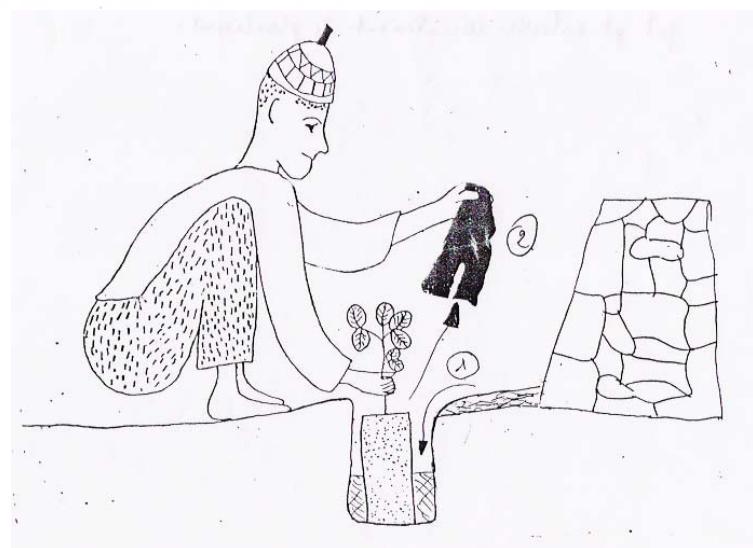
Mi ya kamata a yi ?	Ya – ya za a yi ?	Don mi ?
1. A gina a yashe rame	Da abin gina da ya kamata	Rame ya zamana mai zurfi da zai iya d'aukar kasar da aka tara (30 cm zuwa 40 cm)
2. A gyara kasa da aka hiddo daga rame a garwaya	A garwaya kasar da aka hiddo daga rame da kwasa in bata isa ba sai a karto ta kusa da rame kar a sa manyan duwatsu wajen rufewa	1. Don a samu kasa mai yawa wajen rufe rame da sauri 2. Don tsiron ice ya yi tashi da kyau 3. Don sayun ice su ji dadin ratsa kasa
3. A yanka laidar da ice yake ciki da kasa daidai tsawon yatsa	Da reza mai kaifi	1. Don a yanke sayun da suka dunkule masu hana sayen tsakiya na ice A bine da kyau 2. Don a hidda robar ba matsala
4. A yanke robar cikin rame	A tara hannu kalkashin roba	Don kar kasa ta watse
5. A yanka robar kusan rabin tsawonta	Da reza mai kaifi	Don a samu hidda roba kasa ba ta watse ba
6. A cika rame da kasa daidai tsawon roba don a samu hida robar da kyau	Da hannu a kiyaye da sawar manyan duwatsu	1. Sai dunkulen kasa ya tsaya daidai 2. Don a samu a hidda robar kasa ba ta watse ba 3. Sannan sayun icce ba su samun wata wahala
7. Sai a cika rame da kasa da aka gyara duk kewayen icen	A ja kasa da kwasa wajen ruhe rame tare da kiyaye duwatsu sannan a daddale da kafa.	1. Don sabi da sayyun ice kar su gamu da wani abu 2. Don ice shi samu reno mai kyau 3. Don rame ya tsatsage da kyau kar iska ya ratsa.

V.2.1.3.2 Shawara mafi inganci ta dashen ice :

	Shawara mafi kyau	Da yaushe / lokaci ?	Don mi ?
Reno da d'aukar ice	. A tara su gungu	Sati guda kamin a d'auko su	Kar a bari su yi kwana
	. A zabi itace (mafi girma su ke hita da farko	Kwana biyu kamin a d'auko su	A bar kananan itatuwa su girma da kyau
	. A rage icen da tsawon shi ya d'ara 2 cm	Ga kowane gungu	Kar su zan cikin matsi
	. Kowane gungu a bashi ruwa da kyau	Daga kwana 3 zuwa kwana 4 da aka cara susu	A yi yadda aka iya d'aukar ice ba matsala

	Shawara mafi kyau	Da yaushe / lokaci ?	Don mi ?
	. A kare itace daga iska da rana a lokacin d'aukar su da wurinajiye su. Ya kamata a d'auko kamar lokacin da ba rana	Lokacin d'auka	Kara bari su kwana
	. A zanka motsawa da su a hankali	Wajen d'auka da sabkesu	Kara jima ice
	. Aba itace ruwa sosai bayan an d'auko su.	Hakama bayan an sabke	A yi yadda ice zai samu ruwa issasuy.
Ramu	. A yi dashe in so samu ne 5 m x 5 ko 4 m x 4 m na dashen mai yawa 10 m x 5 m na itatuwa ko 1 m x 1 m ko 2 m x 2 m a cikin jeri biyu ko ukku ukku na layukka		A kiyaye da tsakani
	. Idan an samu hadari sai a yi koñarin yin ramu gabannin shibka Zurfi : 30 cm x 30 cm x 30 cm ga wuri mai kasa ko 40 cm x 40 cm ga wuri mai laka.		Don a samu damshi issashe ga ramu
Shibka	. Ya kamata a samu ruwan sama da za a shibka kamar misali 70 zuwa 100 mm (ya kasance cikin watan juli) . Da an samu ruwan sama kamar 20 zuwa 25 mn to a yi shibka . A tsaida shibka da zaran watan Ogusta ya kwana 15 sai in da halin ban ruwa . Ya kamata a kare shibka cikin kwana 3 zuwa 4 . Kar a ja dogon lokaci wajen shibkar itatuwa.		
	Yadda aka dassa ice <ul style="list-style-type: none"> • A yanke gindin roba da kyau • • Kar a wargaza kasar dake cikin roba • • A sanya icen cikin rame a hankali • A cika rame da kasa a dudule • Sai a bada ruwa 		
Reno da kariyar ice	• A yi ma ice kewaye na rame	Bayan shibka	A bada ruwa sosai
	• In ciyawa ta hito sai a kashe	Kamin a shibka ko bayan an shibka	Kar ta ci karhin ice
Kiidiga	• A kididige ko sau nawa aka yi shibka	Wata bayan shibka	Don a ga abinda aka samu
	• A yi kididigar yawan itatuwa	Wata 6 bayan shibka	Don ciki wañanda suka mutu
Sai a sake shibka wasu	• Sai a sake shibka wasu	Ga shekara mai zuwa	A kara yawan wasu itatuwa





V.2.1.3.3. Iren – iren shibka domin kariya daga iska :

Hanyoyin da ke amfani da su shi ne na shibka itace layi – layi tare da barin fili tsakaninsu don kariye wuraren noma da bada damar samun itaccen aikace – aikace na yau da kunllum da itaccen kuna.

Misali : 4 zuwa 5 tsakanin ittatuwa da 60 m zuwa 100 m tsakanin layi.

Ire-iren ittatuwan da aka fi yin amfani da su sun gama da : ḁayar sahel (takwasasar madawa), kamaci, iccen ḁwaro da iccen turare.

- **Jeren kara ko icce :**

Wani mattaki ne mai rage zaizaiyar ḁasa da ta samu tushe ta hanyar iska, kuma yana taimakawa wajen ragge kai da kawon bissashe a cikin fadama, wuraren noman rani da marainar itace.

A wannan husa'ar ana jera itace layi – layi wani bayan wani tare da barin karamin sarrari tsakaninsu.

Misali : 0,5 zuwa 2 m tsakanin itace da 1 m zuwa 2 m tsakanin layi.

Ire-iren itacen da aka fi amfani da su sun gama da ḁayar sahel, kamaci, magariya da aguwa.

Tsaida tudu :

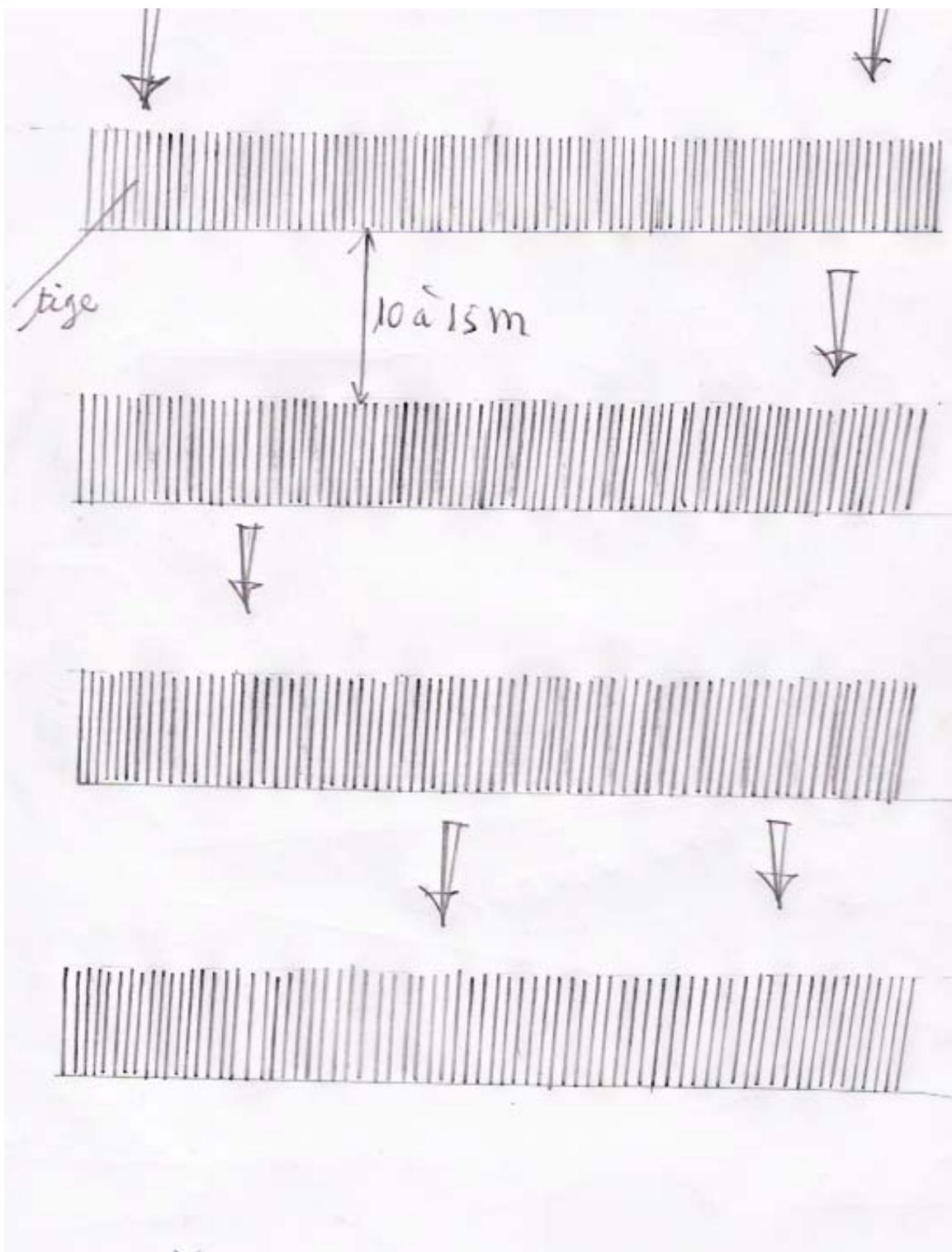
Mattaki ne na hana malalowar rairan tudu ta hanya guda 2 :

- Husa'ar gargajiya : Anan akan yi kariya da karan hatsi ko guntayen itace bisa hanyar iska.

Idan iska yana bugawa ta kowane wajen, ya kamata da a kewaye wurin gaba ḫaya.

Tsakanin darni da darni ya kamata a saki sarrari mai tsawon 10 m zuwa 15 m.

A yi hatara, tsawon darni ya danganta da yanayin wuri.



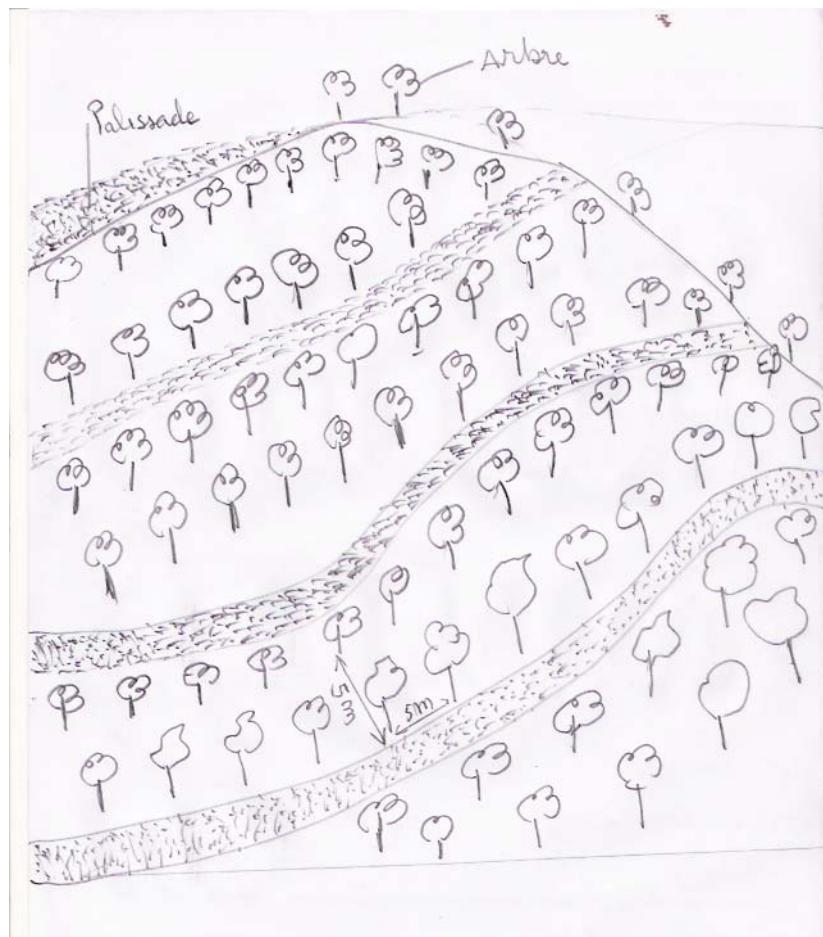
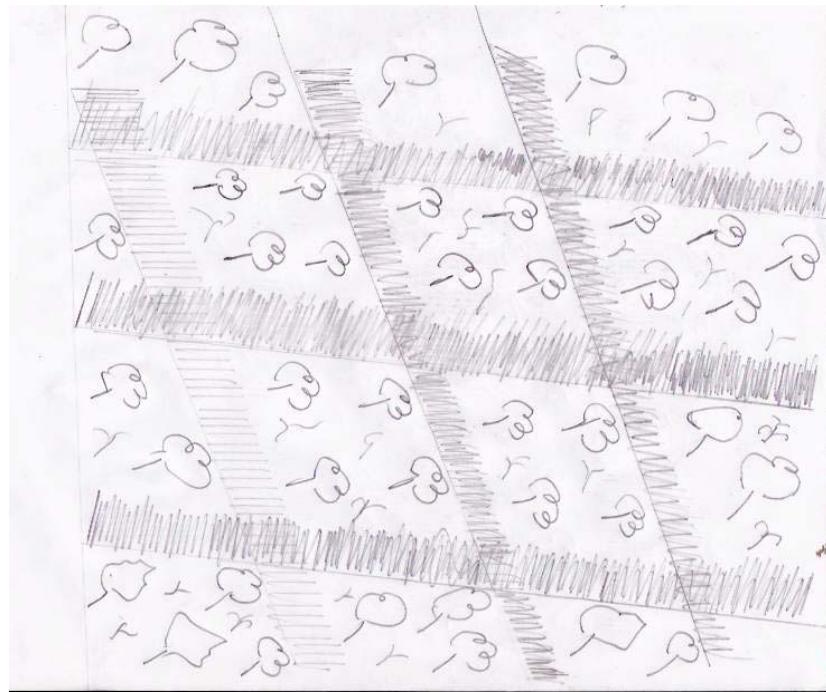
Husa'ar zamani :

Abin nufi anan shine ḁarfafa husa'ar gargajiya ta tsaida tudu ta hanyar shibka itace ko irin ciyawa ko wasu tsirai na daban.

Misali : 4 m zuwa 6 m tsakanin itatuwa, da watsin iri cikin fanganlai.

Ire – iren ittuwa da aka fi amfani da su sun gama da :

- Kayar sahel, kamaci, gao, aguwa da iccen turare.



Abubuwan da ke kawo goyon baya.

Hakukuwan dake tsaida kasa :

Hanya ce da aka bi don tsaida kasa ga wurare kamar baringo, faço ko tuduni.

Ana iya watsa kara, rashen itatuwa ko zuba taki da wata kazanta ta gida (shara) ga wurin da ya zama faço.

V.2.2. Itatuwa dashen Allah :

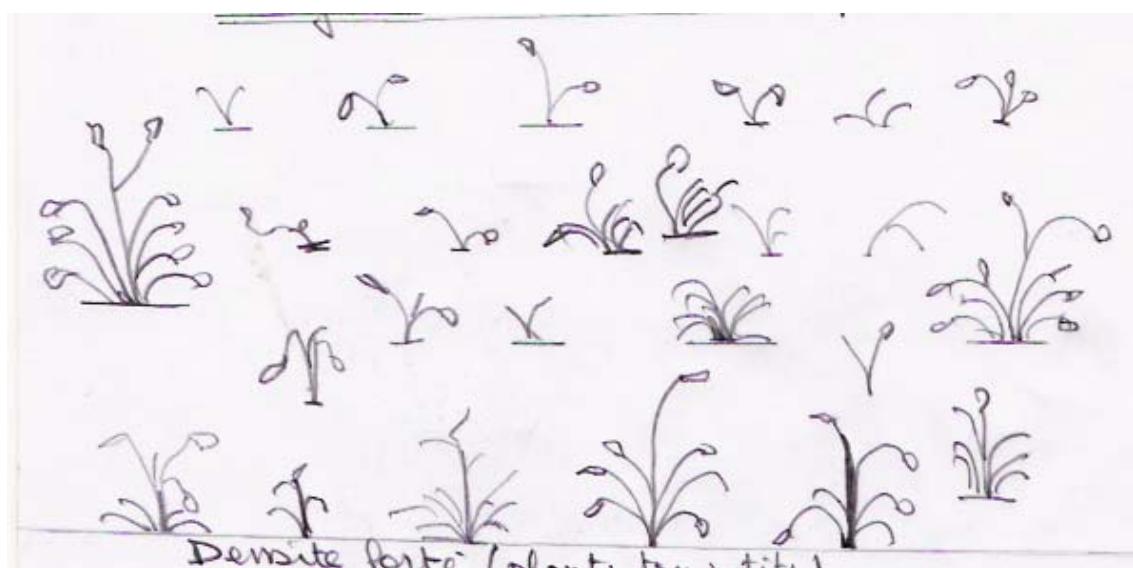
Mi ake nufi da itatuwa dashen Allah ?

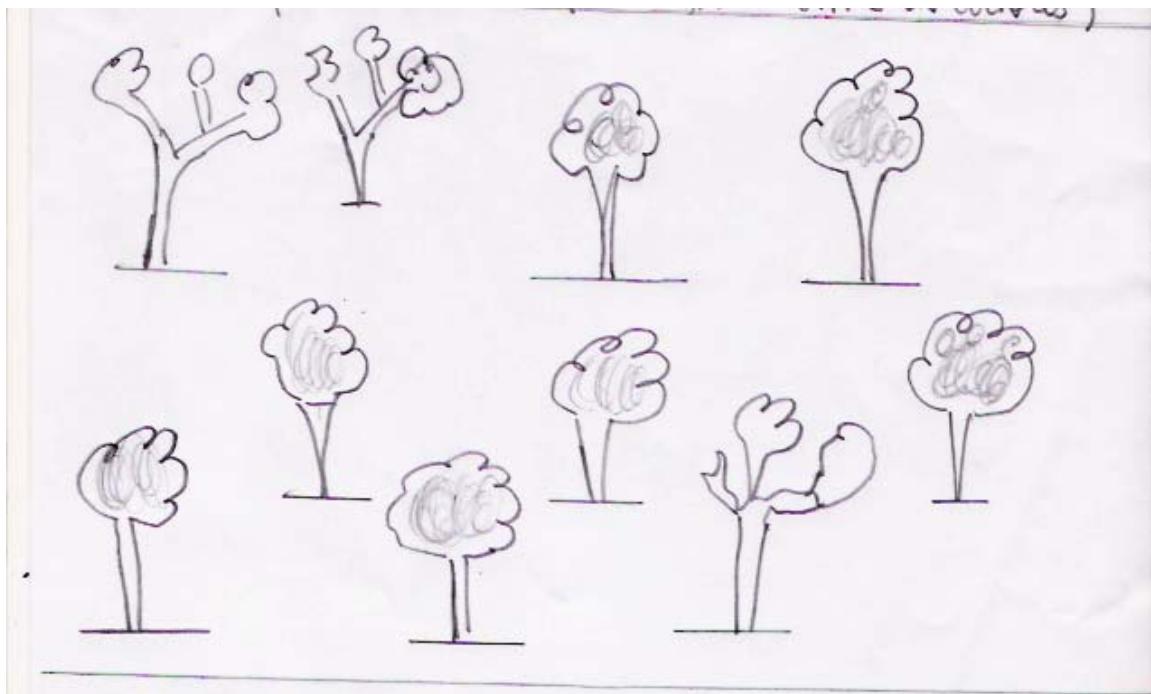
Itatuwa dashen Allah sune itatuwan daba mutum ya dasa ba, hitar Allah kenan. Amma kuma cikin wani hali mutum na iya tanadinsu.

- Kamar in ana ba dabbobi irin diyan itatuwan da ake so
- Kamar kuma ga shibkar diyan itatuwa da aka iya yi nan take

Reno da kariyar itace dashen Allah na da amfani kamar :

- Suna yi ma kasa kariya ta fuskar noma (wajen iska)
- Suna kara ma kasa taki
- Suna bunkasa amfanin kasa ta huskar noma da kiyo
- Horo da waye kan manoma wajen sanin abubuwan da su ke bukata cikin sauķi.





Bambanci tsakanin iccen da ya fito da kansi da wanda aka shibka

Iccen da ya fito da kansi	Iccen da aka shibka
Ana ganin iccen kuma an san wurin da yake	Sai an shibka shi
Sanyunshi sun kafu	Sanyun basu cika girma ba
Yana iya jurewa daga rishin ruwa da rani	Yana buñatar kulawa da tattali
Yana iya kare kansi daga cutukka	Ba ya da wuyar kamuwa ga wasu cutukka
Yana iya jurewa daga cin dabbobin	Cin toffensi daga dabbobi na hanashi yalwa

Yanda ake kariyar itacen da suka fito da kansu :

Abinda aikin ya kumsa	Lokaci	Husa'ar da ake amfani da ita	Abinda ke biyo baya
Zaben sabbin tsirai	Daga tsakiyar watan mayu zuwa tsakiyar watan yuni, lokacin da ake sassabe	Zaben iri, sakkin sarrari tsakanin ittatuwan da aka zaba (a kala 12 m) icce 40 zuwa 50 a cikin Ekka daya	- Farfañowar tsirai, samun itace iri-iri, samun itace da abincin dabbobi, kariyar kasa daga zaizaya
Kafa wani dangali ko yi masu shaida	Iri daya da na sama	A kafa ma iccen wani abu da za ya tallabeshi tare da yimashi wata shaida da wani kyale	Yana taimakawa wajen gane itaccen da ake son a yi tattali

Abinda aikin ya kumsa	Lokaci	Husa'ar da ake amfani da ita	Abinda ke biyo baya
Gina wani karamin rame kewayen iccen	Kafin ruwan sama ya fadī	Yin rame mai tsawon 20 zuwa 30 na zurfi ko a yi rabin wata kewayen iccen	- Shigar ruwa cikin kasa tare da tsayar da su
Kewaye itacen	Bayan fitar da amfanin gona	Kewaye iccen da karan hatsi ko duk wasu kaya da ake iya amfani da su	Kariya ga dabbobi da yara.

V.2.3. Bayyani kan shibka bisa wurare :

Shibkar kai a kai wata dubara ce da ake amfani da ita wajen shibka iri kan wurin da ake son itace su fito.

Dubara ce da bata bukatar aiki da kudī masu yawa (kayan tattali, masu aiki da d'aukar itacen) idan aka kwatamtata da renon icce a cikin pepiniyar.

Jan hankali da shawara wajen shibka itace da renonsu.

1. Abu na farko shi ne a saka masu magani, hanyar da za ta basu su fito da gaugawa kuma su yalwa da sauri.
2. Abin so ne da a yi shibkar cikin damina bayan an yi wani babban hadari.
3. Kafin a yi shibka, abin so ne da a kashe mugunyar ciyawa kuma a yi dan karamin rame a tsakiya wanda za ya bada damar ruwa su kwanta.
4. Tsawon ramen shibka ya danganta da irin iccen, girman kwayar iri da yanayin kasa.

Wanan tsawon rami na tsakanin 1,5 zuwa 3 cm.

5. Yawan kwayar da za a saka a rame (4 ko 5) ya danganta da irin iccen, da lokacin da aka ajiye shi, yanda ake shibkar na iya daidaituwa da yanda ake yin ta hatsi.
6. Da zaran icce ya fito, kuma ya kai kamar 30 cm, abin so ne da a ragge mashi rafu.
7. Abin so ne a shekarar farko da a fitar da duk wata mugunyar ciyawa kewayen da iccen ya fito, kuma a lura da ta'adin da garin ko kwari ke iya hadasawa, tare da sanya taki ga iccen domin ya samu bunkasa cikin yalwa.
8. Da zaran tsiran sun fito a d'auki mattakan da za su hana bissashe ko wasu miyagun kwari lalata itacen.