

JAMAHURIYAR NIJAR

MINISTAN GIDAN GONA

KUNGIYAR KASA JAPON MAI KULA
DA HULDA DA KASASHEN DUNIYA
(JICA)

**PROJEN KULA DA BUNKASA AYUKKAN NOMA A CIKIN
FADAMMU DA KE CINKIN SAHEL A JAMAHURIYA NIJAR
(EDOS)**

KUNDIN HORO BISA GA HUSA'O'IN NOMA RANI



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Gabatarwa

A cikin tsarinshi na dafa ma ayukkan noman rani, Purojen kula da bunkasa ayukkan noma a cikin fadammu da ke cikin yanki Sahel a Jamahuriyar Nijar, ya shirya horo kala-kala zuwa ga manoman rani da ke aiki bisa wuraren da yaka taimaka ma don a ci amfanin baraji-baraji.

Wannan littafi an wallafa shi don manoman rani, Yana kumshe da hanyoyin da ake bi don tahiyar da ayukkan noman rani.

I. Gurin wallafa wannan kundi

Babban gurin wannan kundi shine sarfafa sani manoman rani dangance da husa'o'in na zamani saboda a taimaka masu don su Kara samun amfanin gona, da noma da shibke-shibke iri iri.

II. Manufofin da ake son cimma

1. Manoman rani sun mallaki husa'o'i daban-daban na noma zamani don su sara samun amfanin da noman rani da kuma iya noma shibke-shibke kala-kala,
2. Manoman rani sun gano amfanin dan yin aiki da sabin husa'o'in noma rani wajen bunkasa irin amfanin da da suke samu a cikin noma rani.

III. Zaùen irin shibke-shibke da yanayin da ya dace da irin shibkar da aka zaù

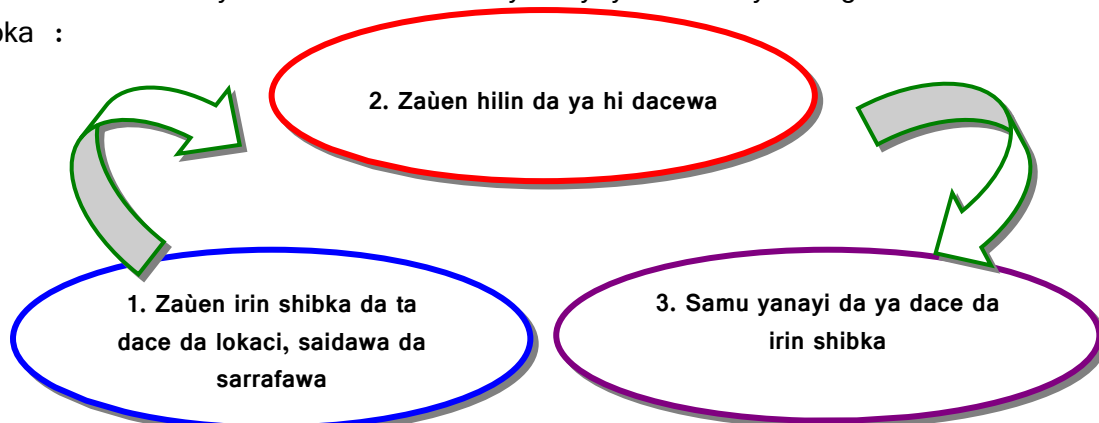
Abu na farko ga manomi shine zaùen irin shibkar da zai nomawa. Ana yin wannan zaùen dangance da lokacin da ya dace :

- ***ga lokacin &ari (Nobamba zuwa Janbairu ko Fabarairu)*** : ana iya amfanin da mutu\$a saboda kowace shibka na yi wannan lokaci,
- ***ga lokacin zahi (maris zuwa mayu)*** : noman rani na da wuya. Shibke-shibken da suka hi dacewa sune: malo, guna, kwankwambur, tibis da kuùewa,
- ***ga lokacin damana*** : tumatir irin na musamman (ICRI-XINA) mai yi ga damana, tanka, attarugu, salati da kuùewa.

Wajen zaùen iri sai an yi aiki da wasu ka'idodi kamar :

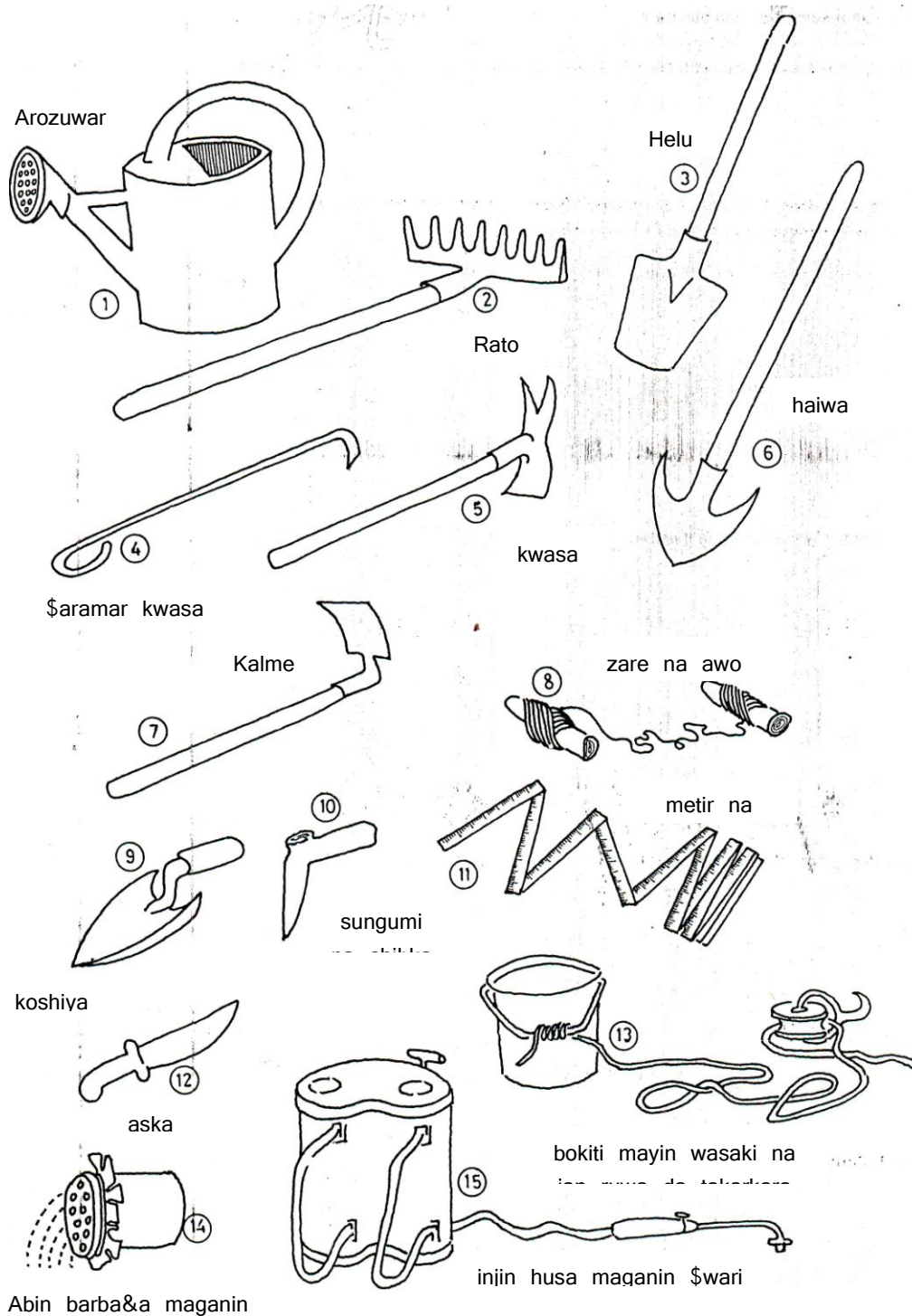
- dacewa da yanayi (a tuntuùì ma'aikatar gidan gona),
- lokacin da yake dauka kahi ya shi kai,
- yawan amfanin da da ake iya samu,
- SanSanon cimaka da ake iya samu,
- sauki wajen ajiya da sarrafawa,
- sauki wajen saidawa,
- cin amfanin da,
- tsarin noma daaikin da husa'o'in da suka dace.

Ga abubuwan da ya kamata manomi ya kiyaye kahin ya shiga noman kowace irin shibka :



IV. Neman kayan noma da suka dace da irin shibkar da za a nomawa

Bayan an za'ui irin shibkar da za yi. Manomi zai nemi iri kayan noman da suka dace, A takaice ga ire-iren kayan da ake aiki da su :



V. Gyaran hikin noma

Idan manomi bai malliki gyarerren noman rani, ya dace da ya gyara wurin da zai yi noman rani

Gyaran wuri na buKatar a yi ayukkan iri dangance da irin wurin da aka zaù. Irin ayukkan sune:

- **sassabe da tsabtace hili** don a hidda ma shibkar da za a noma kishiyoyi kenan sauran itatuwan da ke cikin hilin da ake iya ajiyar miyagun kwari. A bar toye itatuwan da ake sare don kuna kashe kasa take yi kuma tana cuta ma mahalli



Tsabtace hilin noma da gyaran shi

- Noma farko na sa a daidaita hili bai Sanya kuma a bubbuge SuraSussai har ila yau kuma a juya Kasa da kwasa ko da kalme wannan shi zai sa ruwa su shigaKasa sosai kuma ta shega da kyau. Bayan haka sai a hidda duwatsu da ke cikin kasa masu hana ma sayyun cimaka walawa da kyau.

Noman farko na sa gyaran wurin noma da kyau

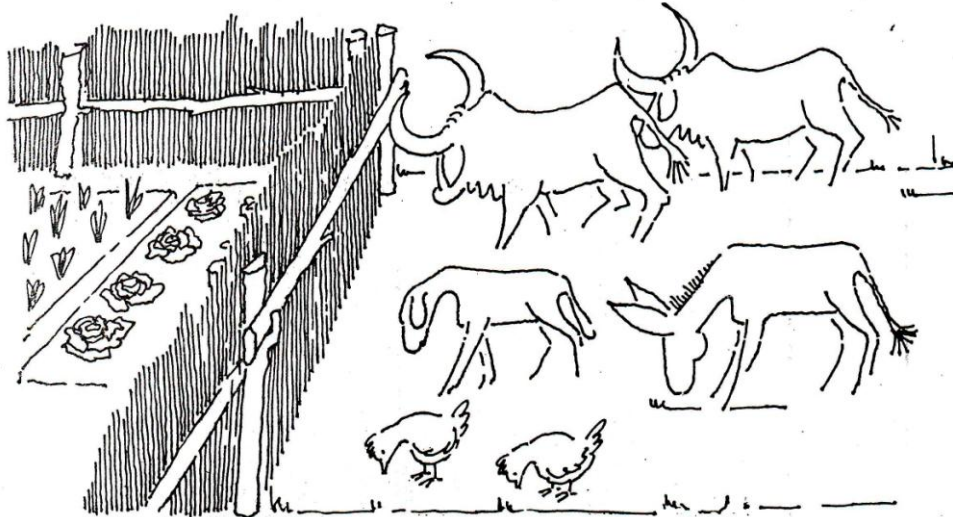


Noman farko na sa ruwa da ake ba shibka su Shiga kasa sosai



VI. Kariyar wurin da ake noman rani

Don amfanin dan noman rani mai yawa sai an yi ma garka ko kariyar dag dabbobi da iska mai karfi. Don haka sai a yi darnin kaya ko na kara sai ya zamanto kariya ga dabbobi da mugun iska amma tsawon shi in ya kai metir 2 ya isa.

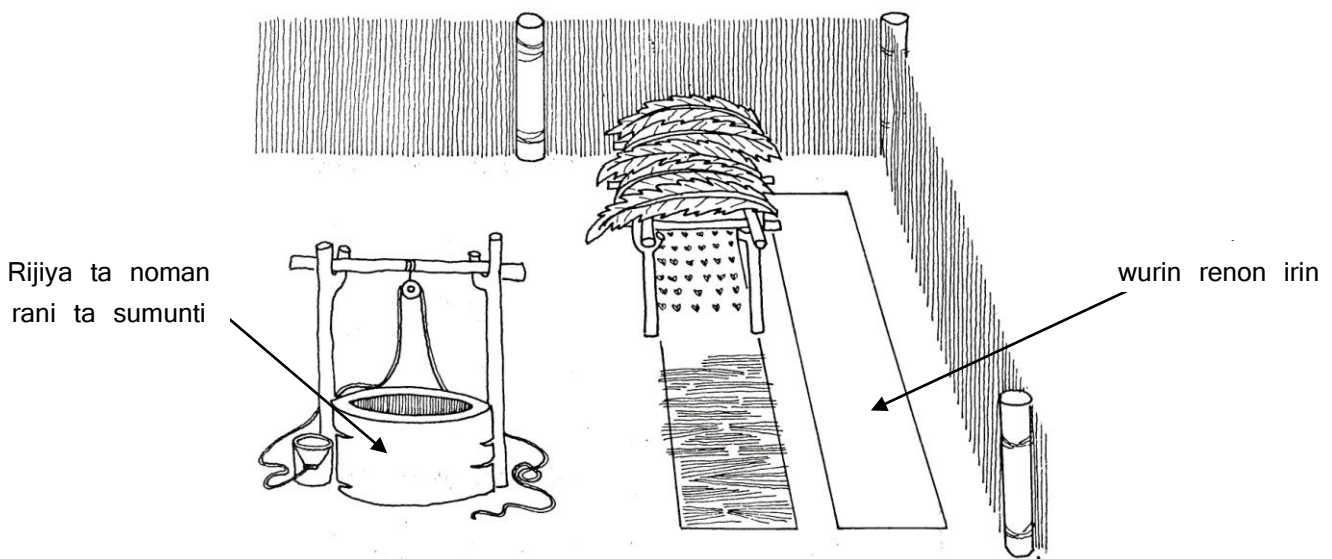


Darni na kariya wurin noman rani

VII. Renon irin dashe

7.1. Za'ùen wurin da za a renon irin dashe

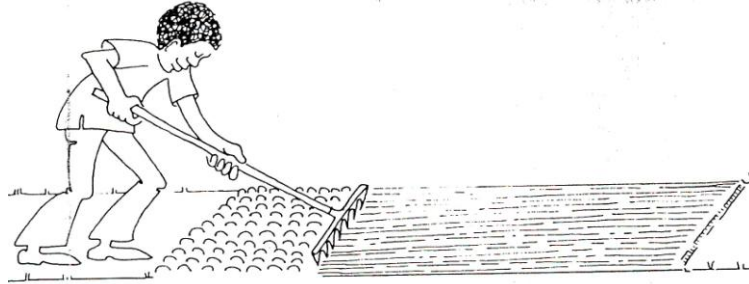
Wurin renon irin dashe ya kumshi fala-fala in da za renon irin da a za a dasawa. A nan cikin fala-fala ne irin ke rayuwa har ya girma ya kai fagen dashe. Don haka za'ùen wurin da za a renon iri yana da mahimmanci. An hi son a sami hili wanda ba ya da tudu da gangare wanda ke iya jika da kyau kuma ya zamanto akwai ruwa ko da yaushe a wurin masu kyau kuma masu yawa.



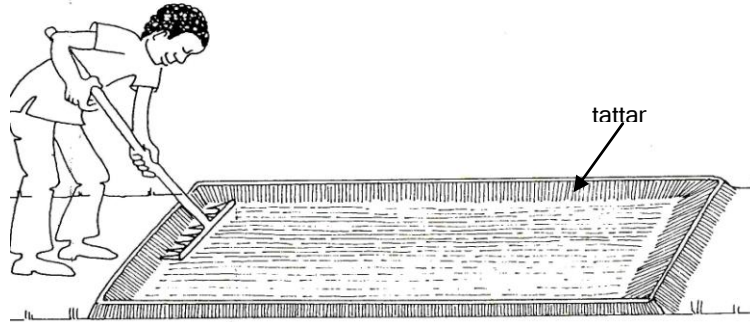
7.2. Guaran wurin renon irin dashe

A takaice fala ta renon irin dashe na da fadin metir 1 amma tsawon na iya zama daban-daban dangance da yawan hili ko kuma da kamannu wuri. A bar hili tsakanin fala da fala wanda ya kai santimetir 300 zuwa santimetir 500 saboda a ji dadin tahiyar da ayukka. In wuri mai gangara ne sai a gilma faloli. Idan ana son cin nasara wajen renon irin dashe :

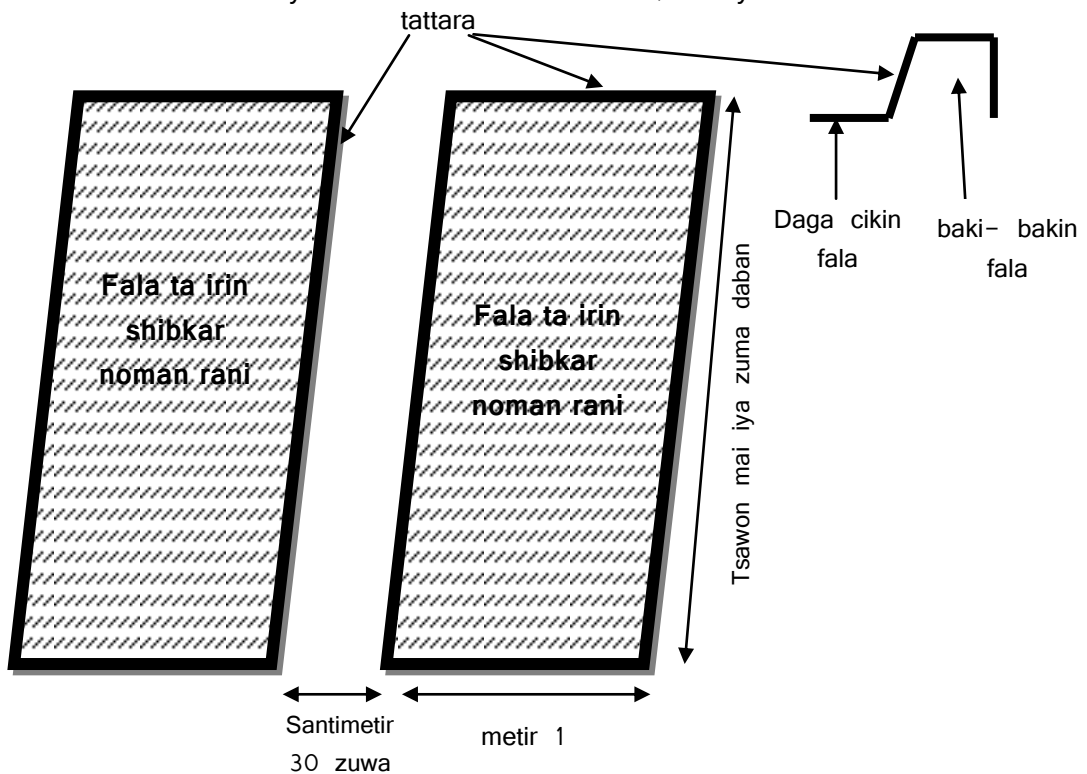
- Sai a yi ma faloli tattara ko kuma a yi masu tudu in ana tsoron ruwa su yi yawa.



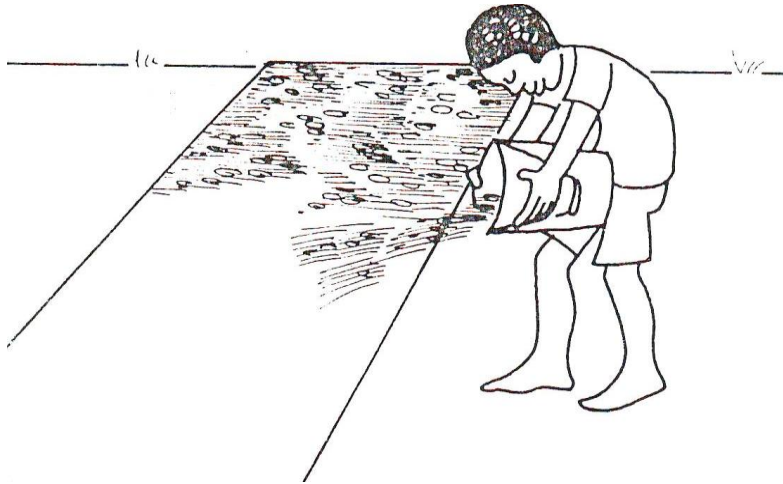
A yi ma faloli bai guda in ana yin su



A yi ma faloli tattara don riše anyi

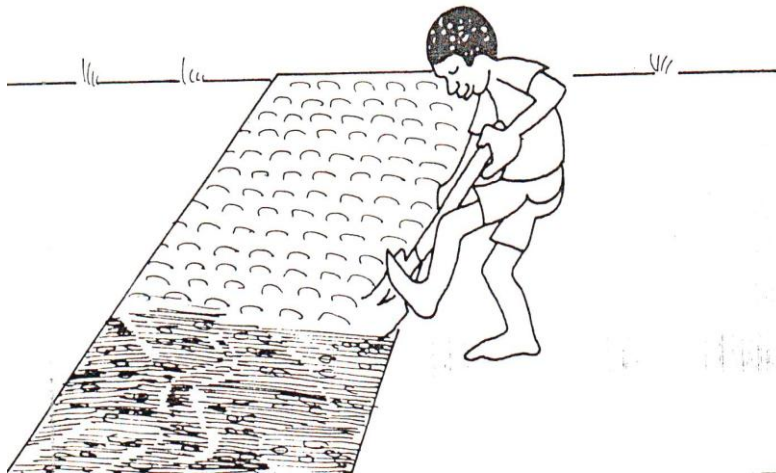


- A kai taki wanda ya ru'ua sosai a watsa shi ko' ina a cikin fala.



Watsa taki galgajiya

- A cusa taki don ya shiga kasa ta hanyar juya shi da helu

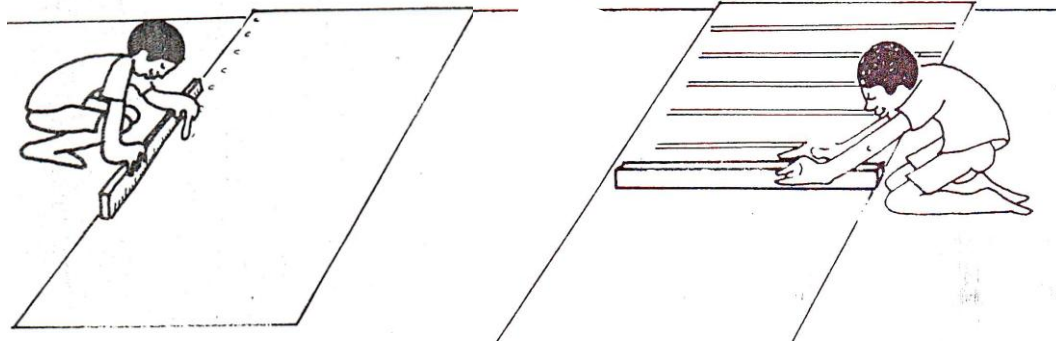


- A ba fala ruwa da maraice ya hi dacewa kahin a yi shibka.

7.3 Shibka iri

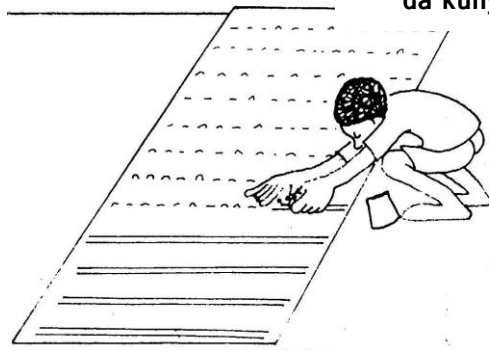
Kahin a shibka iri sai an sa ma iri magani in ba a riga anka sa musu tun can ba. Sa musu dan barbado maganin miyagun kwari ko kuma habdi na itatuwa don a kare shibka daga ciye-ciyen kwari. In za a yi shibka sai an yi aiki da ka'idodi kamar haka :

- Tsakani rame da rame a sanya tazaraar santimetir 10 zuwa 15 ban da tumati kawai da ke son sarari na santimetir 20 ;
- A tsamuka da yatsu iri a sanya cikin layin na musamman da aka yi ;
- A tabbata da irin ya hadu sosai da kasa a sa hannu a tara gyarawa ;
- Kowane kalar irin da aka shibka a rubuta sunanshi saboda yana amfanin a gaba in ana son a yi wani aiki can gaba ;



1 A auna sarari tsakanin kunya da sanda ko kuma ja-layi

2. A zana kunyoyi ko layuyyuka da kunya (layi da layi)

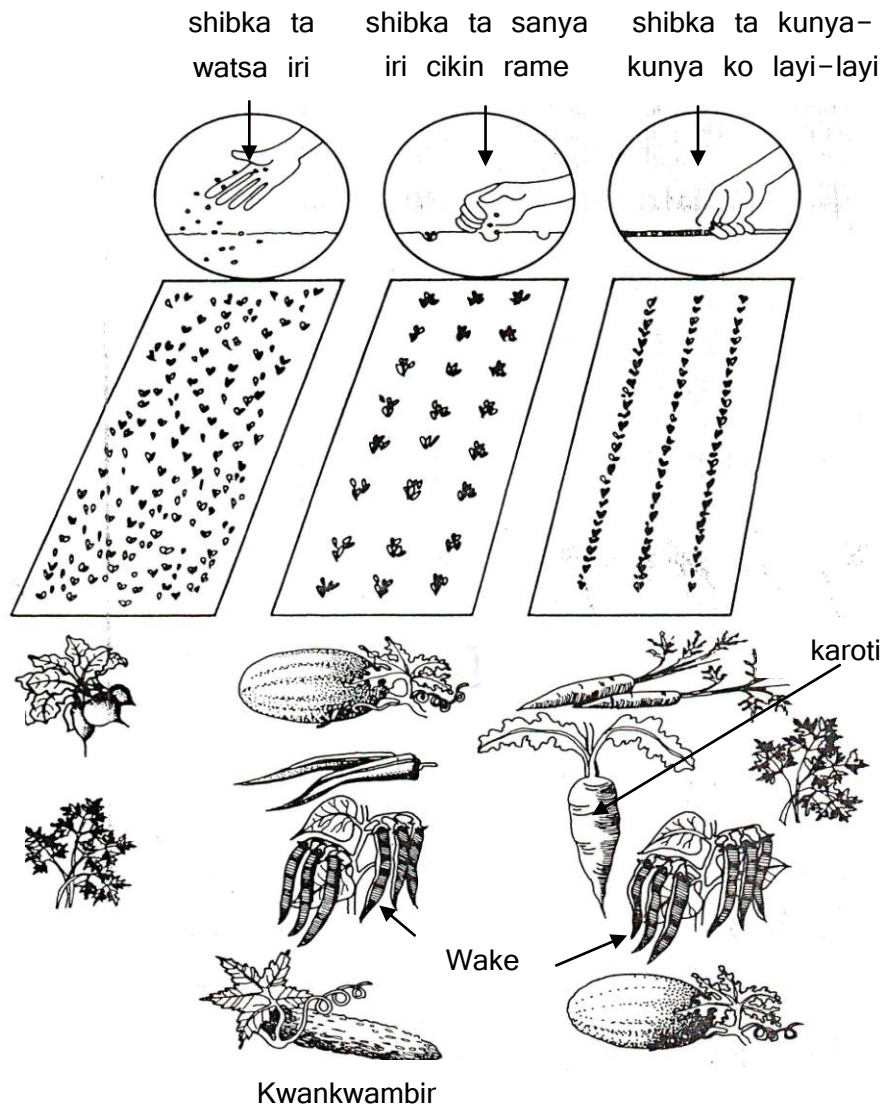


3. A shibka iri kusa-kusa da juna a cikin rame mai zurhi santimetir 1

- Kar a watsa iri saboda irin da aka watsa in ya hito bai kwari, bai kabri kuma ba ya da jimirin wahala,
- A lulluue shibkar da aka yi da ciyawa saboda a rage ma shibka kaihin rana da iska mai zahi.

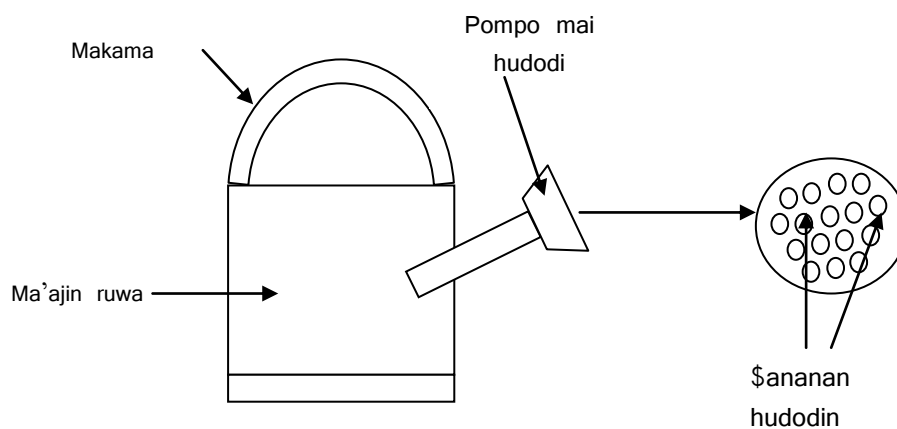
Shibka iri ukku ce :

1. Watsa iri ba a cika yin shi sai shibke-shibke kamar su radi da sauransu,
2. Shibka ta sanya iri cikin rami-rami kamar guna da danginta, kunuwa da wake,
3. Shibka a kunya-kunya ko a layi-layi kamar karoti da wake.



.4. Tattalin irin dashe

A rike ba irin ruwa kowace rana da maraice da arozuwar. A yi yadda hudodin za su dubi sama saboda kar ruwa su fado da karhi har su yi ma ananan iri lahani.



Hoto irin arozuwar da ya dace.

A rika bincika lahiyar irin dashe kawace rana saboda a hidda mashi duk wani abu mai cuta mashi.

A hidda duk wata mugunyar ciyawa saboda kar irin ya rasa ruwa, taki da haske da ya kamata irin a ce shi kadai zai amfanin da da su ba tare da wata ciyawa ba. A hidda sauran abubuwan da shibka ba ta so ta hanyar noma da maimai ko da yausha.

A rika bincike lahiyar irin dashe in babu miyagun kwari wadanda suke sa mashi rishin lahiya ko da sauri a yi ma iri magani tun àanna ba ta yi yawa ba.

A bar irin dashe ya hi dade har ya yi karfi sosai. A yi dashen iri lokacin da ya hi dacewa. Lokacin renon irin dashe ya danganta da irin shibka :

- irin dashe na albasa: kwana 45 zuwa 55,
- irin dashe na shu: kwana 25 zuwa 40,
- irin dashe na tumatir: kwana 25 zuwa 40,
- irin dashe na tattatsai: kwana 30 zuwa 45,
- irin dashe na tanka: kwana 45 zuwa 60,
- irin dashe na salati: kwana 20 zuwa 25,
- irin dashe na kwankwambir: kwana 45 zuwa 55,
- irin dashe na shu: sati 4 zuwa 5.

Lokacin dashe a bincika sosai har irin ya kai fagen a yi dashen shi. Lokacin da iri zai yi ana renon shi yana dangance ne da irin shibka ko da yanayi. Irin dashe da ya dace shi ne wanda ke lahiya ko mai kwari, mai kunnuya na gaske masu yawa da kuma sayyu lahiyayi wadanda suka soma \$osawa.

VIII. Dashen irin da aka yi reno

8.1 husa'o'in dashe

Kahin a yi dashe sai an mallaki faloli masu metir 1,5 da metir 1,8 na tsawo da ke iya canzawa tare da barin sarari santimetir 300 zuwa 500 tsakanin faloli don a ji dadin aiki (ban ruwa, noma da sauransu). In wuri ne mai tudu da gangare ne sai a shirùanta faloli su zan gilme.

A zan sa ma faloli takin galgajiya ruààùè. Ana warwara takin galgajiya bisa faloli daga baya a ara da takin zamani sai a juya su su shiga cikin kasa kamar misali santimetir 20 kahin a yi dashe, a sa rato a daidaita wuri kuma a hidda ùuraguzzan kasa, wannan ya na sa a sami saukin dashe.

Da marace ya hi dacewa da a yi dashen irin. Ga yadda ake yin dashe :

- a kwatanta fara ban faloli da safe ko da maraice kahin a yi dashe.

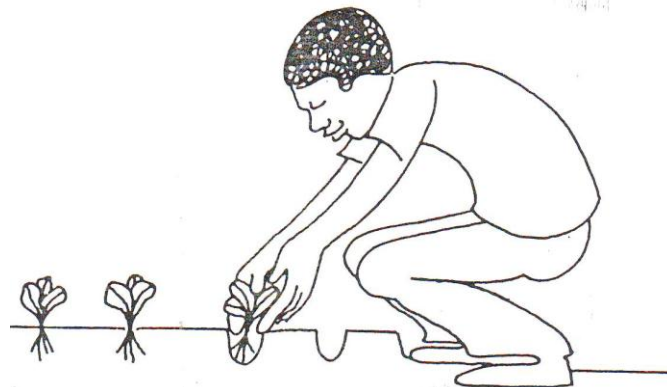


Ban ruwa na faloli
kahin a soma dashen

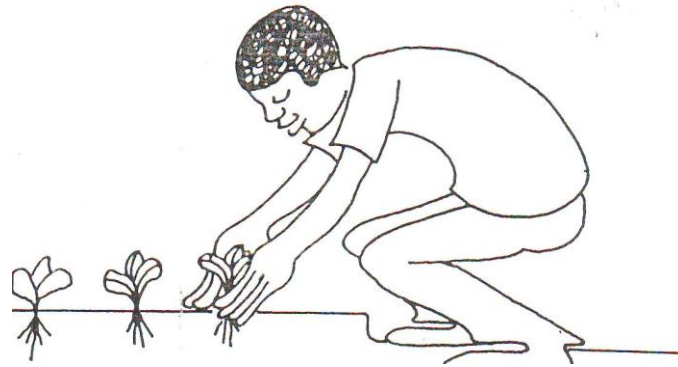
- A tabbata da lalle faloli sun sha ruwa sosai lokacin da za a dashen iri,
- A yi kunyoyin dashe tare da yin amfanin da da zare na awo. Yawan kunyoyi da sarari da ke tsakanin kunyoyi daban-daban yake saboda tana dangance ne da irin shibka,
- A yi ramu tare da sakin sarari tsakanin ramu tare da amfanin da da kwalin shibka, ramen ya kamata ya yi fadl sosai saboda sayyu su wala sosai.



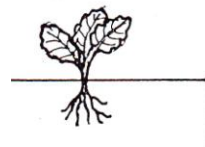
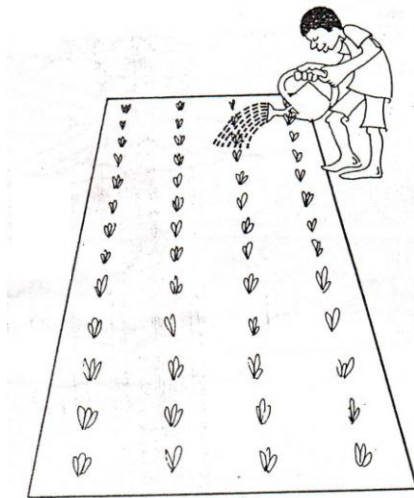
- A dasa irin in son samu tare da yin amfanin da da Buraguzzan laka a kewaye da irin da aka dasa.



- A daùe kasa da kyau a gewayen sayyu da hannu ko da dan guntun kotako don kar iska ya shigo har ya bushe su.



- A yi ban ruwa nan take bayan an kare dashen iri, a yi amfanin da da arozuwar mai bututu mai hudodi;



Iri da ya sami dashe na kirki

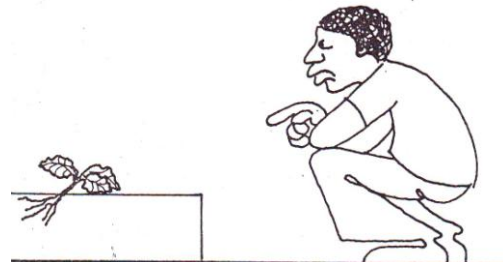


- A aje wani iri gehe a wurin renon iri saboda idan an sami wanda bai kama ba a canza shi.

8.2 Abubuwan kiyayewa in ana cikin dashen iri

Idan ana son cin nasara wajen dashen iri :

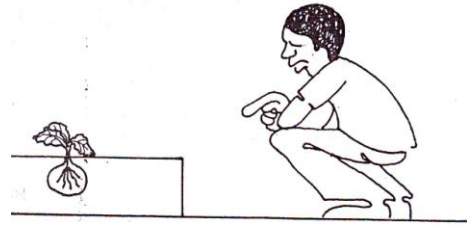
- kar a dasa iri a kwance



- A gyara sayyun iri da kyau kar bakunan sayyu su dubi sama.



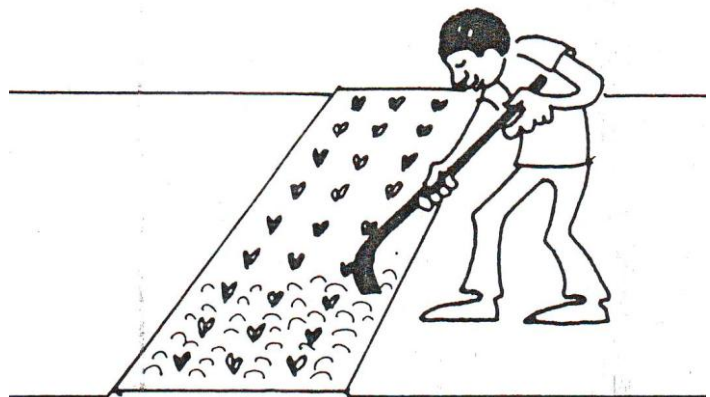
- A tattara kasa a gindin iri amma kar a yi sake iska mai yawa ya zamanto yana cikin rami.



IX. Dubawa da tattalin iri bayan an dasa shi

Dubawa da tattalin iri bayan dashe suna da mahimmanci kwarai wajen samun amfanin da noman rani mai yawa kuma mai kyau. Ayukkan da ya kamata a yi sune :

- A yi noma mai zurhin santimetir 20



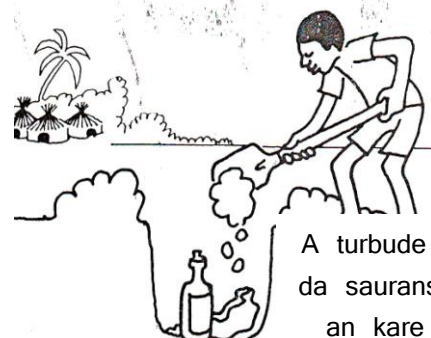
- A rika hankali da lahiyar cimaka kuma a rika sanya magani, a wanke hannuwa kuma a gina rame don a turbude kwankuna da ledodin magani.



Yadda ake amfanin da da kwalin barba&a magani



A wanke hannuwa sosai bayan an kare sa magani

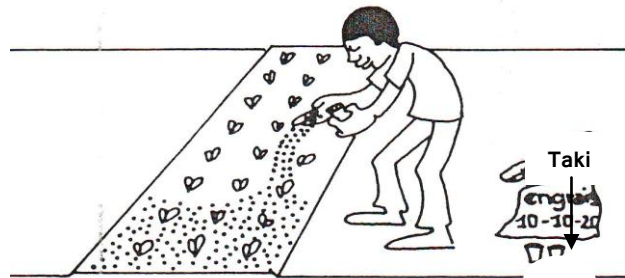


A turbude kwalabe da sauransu bayan an kare da su

- A yi noma da maimai kowane lokaci don a kashe muyagunya ciyawa



- A sanya takin zamani 15-15-15 ko ure don a taimaka ma shibka.
- A sanya takin zamani superphosphate ko NPK



- A ba shibka ruwa daidi yadda take buƙata



X. Ga ire-iren shibke-shibke da kuma lokuttan tahiya da aikin nomansu

10.1. Lokuttan nomansu

Ana nuhi da lokuttan noman shibka, lokutta ne da suka soma tun gyaran wurin noma har lokacin kebe amfanin da noman rani.

Albasa

| Lokaci | Ayukka |
|---|-------------------------------------|
| Daga 10 zuwa 15 na watan satumba | Gyaran wurin reno iri na dasawa |
| 15 ga watan satumba | Shibka irin da za a reno |
| 15 ga watan satumba zuwa 20 na watan oktoba | Tattalin irin dashe |
| 15 ga watan satumba zuwa 20 na watan oktoba | Gyaran irin dashe |
| 20 zuwa 25 ga watan oktoba | dashe |
| 20 ga watan oktoba zuwa 25 ga watan fabarairu | Kulawa da abinda aka dasa |
| 20 ga watan fabarairu | Hidda albarka noma (a & ebe albasa) |

Kwambitar

| | |
|--|-------------------------------------|
| Lokaci | Ayukka |
| Daga 1 zuwa 18 na watan oktoba | A sa kwambitar ya yi tsiro |
| Daga 1 zuwa 18 na watan oktoba | Tattalin tsiron farko |
| Daga 18 zuwa 20 na watan oktoba | Renon iri na dasawa (yawanta shi) |
| Daga 15 zuwa 20 na watan oktoba | Gyaran wurin da za a dasa kwambitar |
| Daga 20 zuwa 25 na watan oktoba | Dashen kwambitar |
| Daga 20 ga watan oktoba zuwa 25 na watan fabarairu | Tattalin dashen da aka yi |
| 20 ga watan fabarairu | &ebe albarka noma (kaka) |

10.2. Takardun bada bayani bisa noma rani

Suna bada bayanai bisa halullukan kowace irin shibka. Suna taimakawa wajen gano yadda shibka ke rayuwar da biyan buƙatunta, wahalar da za a yi mata da kuma irin amfanin dan da ake iya samu idan aka yi aiki da duka garga&in da aka samu.

10.2.1. Shibke-shibke noman rani masu yin diya

Tumatir

| |
|--|
| <ul style="list-style-type: none"> • Tsawon okacin shi kai: kwona 90 zuwa kwona 120 • Tsawon lokacin reno iri: kwona 30 zuwa 35 • Yawan iri a eka1: kg 0,2 kowace eka • Kukin kg1 kowace eka na irin zamani: 8000f(jika8) • Takin galgajiya: tan 30 kowace eka1 • Takin zamani (NPK ko 15-15) kg 600 kowace eka1 • Bukatun ruwa: metir kub (m3) 11.500 • Yawan amfanin dada aka ake iya samu: tan 20 zuwa 33 kowace eka • Yawan masu aiki: aikin ini na mutun 350 • Dashe: irin mai kunnuwa 4 zuwa 6 • Sakin sarari tsakanin kunya-kunya: santimetir 30 da tsakanin gindi da gindi sentimetir 40 zuwa 50. |
|--|

Tattasai

| |
|--|
| <ul style="list-style-type: none"> • Tsawon lokaci kahin shi kai: kwana 180 zuwa kwana 250 • Tsawon lokacin reno iri: kwana 40 • Yawan iri a eka1:garam 200 eka1 • Kudi iri na zamani: jika 3 • Takin galgajiya: tan 20 kowace eka1 • Takin zamani (NPK ko 15-15-15) kg 500 kowace eka1 • Bukatun ruwa: metir kub (m3) 6.600 • Yawan amfanin dan da ake nema: tan 3 kowace eka1 na busasshe • Yawan masu aiki: aikin ini na mutun 235 • Dashe: irin mai kunnuwa 4 zuwa 6 • Sakin sarari tsakanin kunya-kunya: santimetir 50 tsakanin kunya, santimetir 50 gindi zuwa gindi. |
|--|

Tanka (jan tanka)

- Tsanwon lokaci kahin shi kai: kwana 45 zuwa kwana 60
- Yawan iri a eka1:garam 200 zuwa 250 kowace eka1
- Takin galgajiya: tan 20 kowace eka1
- Takin zamani (NPK ko 15-15-15) kg 300 kowace eka1 tattali kg250 eka1
- Bukatun ruwa: metir kub (m3) 6.600
- Yawan amfanin da ake nema: tan 15 kowace eka1
- Dashe: irin mai kunnuwa 4 zuwa 6
- Sakin sarari tsakanin kunya-kunya: santimetir 50 tsakanin layuuyuka kuma santimetir 50 tsakanin ginduna
- Yawan masu aiki: aikin ini na mutun 235

10.2.2. Shibka mai bada ganye

Shu

- Tsawon lokaci kahin shi kai: kwana 95 zuwa kwana 115
- Tsawon renon iri na dashe: kwana 25 zuwa 35
- Yawan iri a eka1:garam 600 zuwa 700 kowace eka1
- Kukin kg na iri (irin kasuwa kofinag): 40.000f (jika 40)
- Takin galgajiya: tan 20 kowace eka1
- Takin zamani: kg 200 a sawa 3
- Bukatun ruwa: metir kub (m3) 7050
- Yawan amfanin dan da ake nema: tan 30 kowace eka1
- Yawan masu aiki: aikin ini na mutun 350
- Dashe: irin mai kunnuwa 4 zuwa 6
- Sakin sarari tsakanin kunya dakunya: santimetir 40 zuwa 60 kuma santimetir 40 zuwa 50 tsakanin ginduna.

Salatti

- Tsawon lokaci kahin shi kai: kwana 45 zuwa kwana 50
- Tsawon reno iri na dashe: kwana 20 zuwa 25
- Yawan iri a eka1: 9370 kowace eka1
- Kudin kg na iri (irin kasuwa kofinag): 40.000f (jika 40)
- Takin zamani: kg 300 kowace eka1
- Yawan amfanin da ake nema: tan 33 zuwa 45 kowace eka1
- Yawan masu aiki: aikin ini na mutun 350
- Dashe: irin mai kunnuwa 3 zuwa 4
- Sakin sarari tsakanin kunya-kunya: santimetir 90 tsakanin layuuyuka kuma santimetir 30 zuwa 40 tsakanin ginduna

10.2.3. Shibka mai karmin saye

Karoti

- Tsawon lokaci kahin shi kai: kwana 450 zuwa 60
- Yawan iri a eka1: 4kg zuwa 6 kowace eka1
- Kudin kg na iri: 2.000f (jika 2)
- Takin zamani: kg 400 kowace eka1
- Takin galgajiya: tan 25 kowace eka1
- Yawan amfanin dan da ake nema: tan 25 kowace eka1
- Yawan masu aiki: aikin ini na mutun 150
- Dashe: irin mai kunnuwa 3 zuwa 4
- Sakin sarari tsakanin kunya-kunya: santimetir 25 zuwa 50 kuma santimetir 3 zuwa 5 tsakanin ginduna.

10.2.4 Shibka mai da cikin kasa

Albasa

- Tsawon lokaci kahin shi kai: kwana 150
- Tsawon renon iri na dashe: kwana 40 zuwa 50
- Yawan iri a eka1: 6kg eka1
- Kudin kg na iri: (jika 35)
- Takin zamani: kg 400 kowace eka1
- Takin galgajiya: tan 10 kowace eka1
- Bukatun ruwa: metir kub (m3) 8750 (tsakanin wata nobamba da na maris)
- Yawan amfanin dan da ake nema: tan 35 zuwa 63 kowace eka1
- Yawan masu aiki: aikin ini na mutun 300
- Dashe: irin mai kunnuwa 4 zuwa 6
- Sakin sarari tsakanin kunya-kunya: santimetir 15 zuwa 20 kuma santimetir 10 zuwa 15 tsakanin ginduna

10.2.5 shibka mai bada saye babba

Dankali

- Tsawon lokaci kahin shi kai: kwana 120
- Yawan iri a eka1: 20 000 zuwa 30 000 kowace eka1
- Kudin yasa: ba sayyadade ba ne
- Takin galgajiya: tan 10 kowace eka1
- Takin zamani :kg 300 kowace eka1
- Bukatun ruwa: metir kub (m3) 2000 a lokacin damana ga rani ko metir kub (m3) 8600
- Yawan amfanin da ake nema: tan 20 kowace eka1
- Sakin sarari tsakanin kunya-kunya: santimetir 100 kuma santimetir 30 zuwan 50 tsakanin ginduna
- Tsawon yasar za a dasawa: santimetir 20
- Masu aiki: aikin ini na mutun 480

Rogo

- Tsawon lokaci kahin shi kai: kwana 180 zuwa 360 dangance da irin gurin da ake son cimma
- Yawan iri a eka1:ya&a 10000 zuwa 15000 kowace eka1 sai bayan noman rani ko na damana ake sa shi
- Bukatun ruwa: metir kub (m3) 3000 da ga watan afirilu zuwa na satumba
- Ma su aiki: aikin ini na mutun 180

Kwambitar

- Tsawon lokaci kahin shi kai: kwana 90
- Yawan iri a eka1:tan 1,2 zuwa 1,5.na kwambitar za'ua'ue wanda za a shibka a eka
- Takin galgajiya: tan 20 kowace eka1
- Takin zamani :kg 250 kowace eka1
- Bukatun ruwa: metir kub (m3) 6000 a eka
- Yawan amfanin da ake nema: tan20 zuwa 50 kowace eka1
- Ma'aikata masu aiki : ini mutun 450

XI. Sanya taki

Idan za a sa ma fala mai fadin metir kare (m2) 10 ga yadda za a yi.

| Irin shibka | Lokacin reno iri | | Bayan shibka (dasa) iri | |
|----------------|---|---|---|--|
| | Sa taki | | Sa taki | |
| tumatir | <ul style="list-style-type: none"> • Kg 40 na takin galgajiya ru'au'ue sosai kwatamci burweti 1 cikakka • g 200 na NPK takin zamani a kwatamce kwalin ashana 10 cike • g200 na ure a kwatamce kwalin shana 10 cike | <ul style="list-style-type: none"> • Kg 30 na takin galgajiya ru'au'ue ko kuma tassa 3 masu kg 10 na nauyi • g100 na NPK takin zamani | <ul style="list-style-type: none"> -g200 na ure bayan yi dashe da kwana 7 -g50 na NPK bayan an yi dashe da sati 2 -g50 na NPK bayan sati4 da aka yi dashe | |
| Tattasai/Tanka | <ul style="list-style-type: none"> • kg 20 na takin galgajiya ru'au'ue sosai ko kwano 2 na kilo 10 • g 200 na NPK • g 200 na ure | <ul style="list-style-type: none"> • kg 30 na takin galgajiya ko kwano 3 na kg10 • g100 na NPK takin zamani | <ul style="list-style-type: none"> -g100 na ure bayan yi dashe da kwana 7 sati -g100 na NPK bayan an yi dashe da sati 2 -g100 na NPK bayan sati4 da aka yi dashe -g100 na ure bayan yi dashe da sati 8 -g100 na NPK bayan an yi dashe da sati 11 | |
| Shu | <ul style="list-style-type: none"> • kg 30 na takin galgajiya ru'au'ue ko kwano 3 na kg10 • g100 na NPK • g100 na ure | <ul style="list-style-type: none"> • kg 30 na takin galgajiya ru'au'ue ko kwano 3 na kg10 • g100 na NPK • g100 na ure | <ul style="list-style-type: none"> -g100 na ure bayan yi dashe da sati1 -g100 na NPK bayan an yi dashe da sati 4 | |
| Salati | | | -g300 na NPK bayan | |

| Irin shibka | Lokacin reno iri | | Bayan shibka (dasa) iri | |
|-------------|--|---|---|--|
| | Sa taki | | Sa taki | Takin na tattalin shibka |
| | | | | an yi dashe da sati 2 |
| karoti | | | <ul style="list-style-type: none"> kg 30 na takin galgajiya ru'au'ue ko kwano 3 na kg10 g100 na NPK | -g100 na ure bayan sassabe -g200 na NPK bayan an yi dashe da sati 2 -g100 na NPK bayan an yi dashe da sati 8 |
| albasa | -20kg na takin galgajiya ko kwano 2 na kg10 - g250 na NPK - g50 na ure | -kg 30 na takin galgajiya ko kwano 3na kg10 - g 300 na NPK - g 50 na ure | | -g200 na NPK bayan an yi dashe da sati 3 - g200 na NPK bayan an yi dashe da sati 5 g200 na NPK bayan an yi dashe da sati 8 |
| Dankali | | 15kg na takin galgajiya ko kwano 1 da rabi na kg10 g500 na NPK | | G400 na NPK bayan an yi dashe da sati 4 |
| kwambitar | | -g300 na NPK (15-15-15) wanda za a watsa bayan an yi noma da kahin a zahe \$asa -g200 na ure wanda za a watsa bayan an yi noma da kahin a zahe \$asa | | -g100 na NPK in dankali ya kai fagen yin \$ulame (babban saye) |

XII. Kariyar shibka daga miyagun kwari

| Irin shibka | Cututtuka | *anna | Magani |
|-------------|--|---|--|
| Albasa | Cuta mai hana albasa hita da kyau | -albasa ba ta hita kwarai -kunnuwa suna bushewa -kunnuwa sai su mirde | Gamalip na ruwa Gamalip na ruwa (decis) |
| | -tsusa mai hudewa da cin kunnuwan albasa | Tattake kunnuwa da hude su | Gamalip na ruwa (decis) in tsutsotsin sun soma yaduwa kwarai |
| | Ru'ua fara ta &an albasa | Wurin da ya ru'ue sai ya yi yin wani abu kamar zare fari | -A bar bada ruwa da har su wuce minzanin -A cire diya albasa suka kamu da cutar a gone su |
| Shu | Tsutsa mai huhhude shu | Tattake kunnuwa zucciya da fome | Gamalip na ruwa karate |
| | Tsutsa mai kama gindi | Kunnuwa su yi batsa-batsa | Fazo dan barbada ya yi dacewa |
| Karoti | Cuta mia kama sayyun karoti | -Rishin girma da kyau -Rishin lahiyar kananan sayyu | Canza shibka (bana wata,ba&i wata dabam) |
| Tumatir | Tsutsa mai ùanar | -katse huren tumatir | karate |

| Irin shibka | Cututtuka | *anna | Magani |
|-------------------|--|---|---|
| | dare | -ùata &iyan tumatir | |
| | Tsutsa mai ùannar dore | Wani baki-baki bisa kunnuwa Kunnuwa su yi masara-masara | Gamalip na ruwa karate |
| | Cuta mai sa kunnuwa su zan balge kuma da tsaga-tsaga | Kunnuwa su yi kamar kwana-kwana. | Fazo dan barbado |
| Salati | Cuta mai ùannata Kunnuwa | Ruùewa kunnuwa da zubar su | Gamalip na ruwa |
| | Cuta mai kwayar sinadiri mai hana girman shibka | Kunnuwa su yi baki | Gamalip (captofol) |
| | kwari mai cin kunnuwa | Tattakewa da hude hkunnuwa | Magani husa-husa |
| | \$wayar cutar dangin sinadari | Rishin ci-gaban kunnuwa gindi salati ya kanlaunin masara-masara | A hidda duk gindi da ya kamu |
| Tattasai da tanka | kwaro ami hude icce tattasai da ko tanka dan ya shanya ruwa jikin shibka | Huda icce shibka kuma ya janye ruwan jikin shibka kuma ya sa shibka rishin lahiya | karate |
| | suda mai ùata kiya | diya su ruèe kuma su yi zahin faduwa kasa | Gamalip na ruwa |
| | Cuta mai kama sayyu kuma ta hana girma | Rishin girma Rishin lahiyar kananan sayyu | Jujjuya shibke-shibke Sa magani tun lokacin reno iri |
| Dankali | Cuta mai sa kunnuwa su canza launi | Rishin walwalewar shibka Kunnuwa suna canza launi su &an launin da ba nasu ba | Dasa ya&a lahiyayya |
| | Cuta mai kama sayyu | Shibka ba ta girma yadda ake so Rishin lahiya mai kama kananan sayu | Jujjuya shibke-shibke Hasken rana |
| Rogo | Cuta mai kama sayyu | Kunnuwa na canza kama Lalacewa hure da sa kunnuwa su &an launin fari | A kwai hankurin magani kahin rishin lahiya ya ùace Dasa irin rogo mai lahiya |
| | Cuta mai kama sayyu | Rogo ba ya girma sosai Rishin lahiya kananan sayyu | Jujjuya shibke-shibke Sa magani tun lokacin reno iri |
| Kwambitar | tsutsa | Tattake kunnuwa kuma ta katse iccen rogo | Gamalip na ruwa |
| | Cuta mai kama sayyu | Rishi girma da kyau Rishen lahiya kananan sayyu | Jujjuya shibke-shibke Sanya magani tun reno iri. |

A lokacin da za'a yi anfani da maganin kashe kwarin da aka riga aka zana, yakamata a maida hankali bisa abubuwa kamar :

- ✓ Kar a yi anfani da magani iri daya. In har aka ci gaba da anfani da magani rir daya, wadansu kwari suna iya bijirewa maganin, abin da zai sa karfin maganin ya rage.
- ✓ Masamman ma, maganin irin na fosfor kamar *Malathion filitox*, ko kuma *Karaté EC*, *Dècis EC* sau daya ko sau biyu ya kamata a yi anfani da su ga kowane zagaye. Ta wani fanni kuma, a yi kokari a kiyaye yin anfani da pyrèthroïdes a farkon aikin, sai dai a samu magani kamar su TITAN EC, EMACOT etc.
- ✓ Tun da yake akwai maganin shibka iri iri a kasuwa bayan wadanda aka riga aka zana, in an samu dama, a yi kokari a sayi iri dayawa wadanda suke da fasalin magani daban daban, kuma a yi anfani da su daya bayan daya. In har ana shakkar maganin, to a tuntubi mushen gona.
- ✓ In bukata ta kama, ana iya nemo maganin gidan gona irin wanda aka gwada cikin wannan layi da ake gani.
- ✓ Ga irin maganin kwarin da ake iya sarrafawa a Niger, da yadda ake sarrafa su da kuma karfin su

| Kayan aiki | yadda ake iya sarrafasu da yadda ake anfani da su | Karfin maganin |
|-------------------------|---|--|
| Tonka da sabili | A zuba jimkin hannu na bushashshen tonka cikin litir daya na ruwan zafi, a bari ya kwana yana haduwa. A kara garam biyar na sabili, a cuda da kyau kuma a shafa ga ganyen daga ciki. Da yake, karfin maganin bay a jimawa, yana da kyau a rika sa maganin a takaice sau daya bayan kwana biyu ko ukku. | Yana korar kananan kwari, da <i>heliiothinae</i> , da <i>acariens</i> . Ana jin iskar maganin ga shibka |
| Taba da sabili | A sa ganyen taba kamar garam goma (10 g) cikin litir daya na ruwa, a bari ya kwana yaan haduwa. A kara garam biyar na sabili, a cuda da kyau kuma a shafa ga ganyen daga ciki. Da yake, karfin maganin bay a jimawa, yana da kyau a rika sa maganin a takaice sau daya bayan kwana biyu ko ukku. A yi kokari a kiyaye da yin anfani da wannan magani ga <i>solanacées</i> . | Maganin yana korar kananan kwari, dolidoli, <i>punaïses</i> da <i>acariens</i> . |
| Tokar ciyawa da ta icce | Ana shafa tokar ciyawa da ta icce ga ganyen. Karfin su baya jimawa kwari. | Yana korar <i>kananan kwari</i> , <i>noctuelles</i> da <i>sauransu</i> . |
| Bedi da sabili | A tsoma ganyen bedi cikin ruwan zafi, a bari ya kwana yana haduwa. A kara garam biyar ba sabili, a cuda da kyau kuma a shafa ga ganyen daga ciki. Maganin yana kai sati amma karfin shi baya dadewa. | Yana korar mugwayen kwari dayawa. Bayan wannan kuma, binne ganyen bedi a cikin kasa yana korar <i>nematodes</i> . |
| Tafarnuwa da sabili | A kwalde tafarnuwa, a sa cikin litir na ruwa. A kara garam biyar na sabili a cuda da kyau kuma a shafa ga ganyen daga ciki. | Yana korar masamman ma <i>tétranyques</i> da <i>chrysomèles</i> |

Irin littatafan da aka yi aiki da su wajen wallafa wannan kundi

- Littahin wata babbar ma'aikatar kan bincike-bincike na huskar shibke-shibke irin na noman rani na kasa Senegal
- Sakamako na rubuce na lahiyar da ayukkan noman rani a gundumar Buza na watan afirilu na 2008 da babbar Ma'aikatar didan gona ta Buza ta wallafa
- ICRISAT 2007
- JGRC maris 2001
- UNICEF satumba 1981(kungiyar duniya mai kula da ci-gaban kananan yara) littahin jagora ga mai noma rani.