

# Fakiti na 112, Abu na 4

# Nau’i: Shimfida

Satumba 2019

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**Shimfida: Noman Dankalin Turawa**

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**Gabatarwa**

***Me yasa wanan maudu’in ke da mahimmanci ga masu sauraro?***

Saboda masu noman dankali su san:

* Yadda zasu gyara gonar su kafin shuka.
* Kasar da dace ayi noman dankali.
* Amfanin gona da za’a iya sauyawa da dankalin turawa dan samar da dankali mai yawa da kuma rage yaduwar kwari da cututuka.
* Yanda za’a zabi tushen da ya dace ayi shuka.
* Tazara da ta dace tsakanin dankali wurin shuka.
* Shawarwarin da suka dace wurin noman dankalin turawa.
* Yanda za’a kare girman dankali daka kwari da cututuka.
* Lokacin da ya dace a tsigo dankali bacin tsiro.
* Yadda za’a samar da yalwa mai yawa ta ingantacen dankali.

***Menene gaskiyar wasu abubuwa?***

* Dankalin turawa na nuna ne tsakanin sati 10-14 bayan shuka. Idan ya nuna, ganyen sa na fara yaushi.
* Idan akwai masu bada shawarwari da kuma gwajin kasa a yankin, manoma su shirya ayi gwajin kasa don a san wadanan sinidirai za’a kara a gonar kafin shukar dankali.
* Dankalin turawa yafi yi sosai a kasa mai tsane ruwa kamar kasa mai tsakuwa ko dan laushi.
* Ana iya jujuya noman dankali da noman masara ko kuma wake, gurjiya ko waken suya da suke kara sinadirin nitrogen a kasa.
* A lokacin shuka, tazara da ake bada shawara a bari shine kamu 30 na sentimeter.
* Ka shuka tushe a saman kunya me zurfin sntimeta 10 ka rufe kuma sosai.
* Ka rufe tushe gaba daya dan gudun dukan rana.
* Idan aka shuka dankali a wuri mai tabo, a kara da sinadiri kamar ciyawa sanan a daga gadon shukar domin zubar da ruwa.
* Za’a iya shuka dankali akan tuddai ko kunya.

***Menene baban kalubale wurin noman dankalin turawa?***

* Cutar funfuna daka baya.
* Cutar bakteriya mai sa yaushi.
* Shuka dankali masu dauke da cutar yaushi ko birus.
* Sake amfani da iri masu dauke da cutar bakteriya ko birus.
* Rashin jujuyawa da kuma hada noman dankali da wasu shuke-shuken. Wanan yana kara yaduwar kwari da wasu cututuka.
* Rashin kyawun tsarin kasa na janyowa a samu amfanin gona kadan.

*Domin Karin bayani, duba mukala 1, 2, 3, 8, da 13.*

***Bangaren Jinsi a wurin kula da dankali bayan girbi***

* A kasar Malawi, cinikayya dankalin yafi amfanan maza akan mata. Maza sunfi amfana da noman kasuwanci akan mata.
* A yankin sahara Afirka, mata sun tsunduma wurin girbi da sufirin dankali.
* A wani bangaren Guinea, mata ne ke da alhakin yawan aikin hannu da kuma girbi na dankali.
* A kasar Uganda, mata sunfi karfi wurin shuka dankalin a gona, amma basu da karfi a wurin cinikayya sa da kuma zaben shukan da zaayi.

*Domin Karin bayani, duba mukala 9, 10, 11, da 12.*

***Hasashen tasirin sauyin yanayin a wurin noman dankalin turawa***

* A bangaren arewa da tsakiyar Jahar kasar Plateau ta Nigeria, samar da dankalin turawa yana dunkushewa saboda matsalar sauyin yanayi kamar fari, ambaliya ruwa, da ruwan sama ba lokacin damuna ba.
* A kasar Afirka ta Kudu, fari da zafin yanayi ya rage yelwar dankalin turawa a duka yankunan da ake samar dashi a kasar.
* A Njoro, kasar Kenya, karuwa zafin gari ya kara yaduwa kwari a cikin dankali.
* A kasar Afirka ta Kudu, masana bincike sunyi hasashe cewa yawan kwarin aphid zai karu a wasu wurare da ake shuka dankali a shekara 2050, which zai hadasa karuwa cututuka a dankali.
* A garin Mekelle a yankin arewacin Ethiopia, dadewa yanayin zafi da kuma zuwan damuna a karshen lokaci ya kawo sanadiyar raguwar yalwar dankali.

*Domin Karin bayani, duba mukala 4, 5, 6 da 7.*

***Muhimman bayanai game da noman dankalin turawa***

**1. Zabi da kuma shirya gona kafin shuka**

Manoma su kula da wadanan abubuwan wurin zabi da kuma shirya gona kafin shuka:

* Dankalin turawa yafi girma sosai a kasa mai tsane ruwa kamar kasa mai tsakuwa ko dan laushi.
* Anfi shuka dankali akan kunya. Amma, ana iya shuka su akan shimfidadiyar kasa mara ruwa, sai ayi kunya bayan fitowar sa. Idan kasa mara kyau ce, dole a shuka su akan kunya tun daka farko dan samun hanyar tsane ruwa.
* Kada ayi shuka a gonar da aka taba shuka daya daka cikin wandanan a shekara daya ko biyu da suka wuce dan gudun cututuka bakteriya; tumatir, attaruhu, yalo ko dankali.
* Zurfin galma yana kai tsayin sentimetr 30 cikin kasa lokacin gyara kasa domin cire ciyayi da kuma gyara kasar ta samu iska da wurin fitar da ruwa.
* Ka hada da furza bayan amfani da garma a gona.
* Ka tatattara ciyayi a wuri daya sanan ka kona su bayan sun bushe.
* Manoma suyi gwaji a gonar su kafin shuka dankali domin su tabbatar da kasar wurin na tsaka-tsaki ko kuma asid kadan wanda yawan sa bai wuce pH 5.5 zuwa 7, kuma tana da sinidiran da suka kamata.
* A bada tsami a kasar da take da asid mai yawa.
* Masu bincike akan dankali suna kira cewa, idan babu masu bada shawara akan zuba takin zamani, a zuba 500kg na NPK 17:17:17 akan ko wace kadada lokacin shuka, sanan a hautsuna da kasa sosai domin kare girman ciyawa. Idan NPK bata samu ba, manoma na iya amfani da NPK 15:15:15 ko kuma hadin takin NPK da za’a kwatanta lissafin sama.
* Za’a iya zuba takin CAN lokacin yin kunya domin samar da sinadirin nitrogen akan kilogram 300 akan ko wace kadada. Idan ba’a samu CAN ba, za’a iya amfani da wani takin zamani.

**Shuka**

Tushe dankalin turawa da za’a shuka ya kamata su zama girman su daya. Ayi shuka kafin a fara ruwan damina. Lokacin shuka, manoma su tabbatar da:

* Tushen da za’a shuka an same su ne daka wurin da suka dace, domin a tabbatar basu da cututuka kuma sun bada amfanin mai kyau.
* Tushen sabbi ne kuma basu da ciwuka.
* Tushen da zaa shuka ya zamanto fadin su 25-60mm, kuma suna da tsuro 4-5, nauyin su gram 40-60, kamar dai girman kwan kaza.
* Tushen su zamanto suna da “ido” 4-6, wanda zasu iya zama tsuro.
* A saka shukan kan kunya wurin tsuron na kallon sama.
* Ayi shuka da zurfin ya kai sentimita 8-10 acikin kasa dan kariya daka zafin rana.
* Tazara tsakanin shuka ya zamanto sentimita 30, a layi da iri yake da girma daidai (girman kwai). Idan za’a shuka karamin tushe, (ido uku), a rage tazara ta zama zuwa 20cm, idan kuma za’a shuka babban tushe (ido 6-7), a kara tazara zuwa 40cm.

|  |  |  |
| --- | --- | --- |
| **Girman Tushe** | **Lambar Tsuro** | **Tazara shuka (a layi)** |
| **Karami** | **2 – 3** | **20cm** |
| **Madaidaici (girman kwai)** | **4 – 5** | **30cm** |
| **Babba** | **6 – 7** | **40cm** |

**3. Kunya da Tsigewa**

Yin kunya da juya kasa na samarwa da danakali mai-girma sakakiyar kasa ya girma. Yin haka na kare danakalin daka zafin rana wanda yake maida su kore. Yana kuma kare su daka cutar tushe ya kuma rage digon baki da zafin kasa ke sawa.

* A shawarce, kunya da za’a shuka dankali ta zamanto 25cm a tsayi ko kuma fiye da haka.
* Manoma su tono dankali idan bishiyar ta kai tsayi 15-20cm, tare da binne rabin tsayi a cikin kasa.
* Hakar kasa na karawa bishiyar kuzari ta kara tushe, a maiamkon kara ganyaye. Tonon kasa akan lokaci na kara yawan amfanin gona.
* Ka kara tonon kasa bayan sati 2-3. Zai iya yiyuwa ka kara 3-5cm na kasa domin kara tsayin kunya.
* Ka tsige dankali sati 2-3 bayan shuka idan tsurai suka fito daka kasa.
* Ka sake wani tsigewar bayan sati 5-6 bayan shuka kafin ganyen su rufe suyi rumfa. Ayi cira a hankali dan kada a jiwa tushe ciwo. A lokacin yin tsiga ta biyu, ka tara kasa 3-5cm a bakin bishiyar dankalin.

*Domin Karin bayani, duba mukala 1, 2, 3, 8, da 13.*

**4. Cututuka da Kwari**

Dankalin turawa na saurin kamuwa da cututka kuma kwari na saurin kama shi. Manoma na iya rage illar ta hanya shuka tushe masu koshin lafiya, jujuya shuka da hatsi, banda kuma hada shuka da wata shuka. Wadansu daka cikin kwari da cututuka da suke kama dankalin turawa sun hada da:

*Cutar dugwai:* Wanan cutar fungi na kama ganyen da kuma sanda bishiyar dankalin turawa, wanda suke komawa baki su mutu. Cutar dugwai na samar da farin dunkule a karkashin ganye.

* Cutar tafi tsauri lokacin da ruwan sama yayi yawa, gumi yayi yawa, zafi kuma yayi kasa. Kwayoyin fungi suna rayuwa a zafi da ya kai 16 zuwa 20 maaunin Celsius.
* Cutar na iya yaduwa daka jikin tushen dankalin da ya kamu da ita ko kuma ragowar bishiya mai dauke da cutar.
* Iska na iya yada yayan cutar zuwa sauran bishiyun dankali.
* Cutar tana kawo matsala ne lokacin damuna. Dole a kare dankali tayin amfani da maganin funfuna. In ba haka ba, baza a bada shawara shuka dankali, dan manoma na iya asara amfanin gonar su gaba daya. Bayan damuna ko kuma farkon damuna, zaa iya amfani da maganin funfuna kadan-kadan.

*Kulawa*

* Lokacin damuna, manoma suna fesa maganin rigakafin funfuna dake hade da *mancozeb* da kopa bayan fitowar shuka kadan sanan a cigaba da fesawa duk sati.
* Manoma na iya amfani da maganin funfuna bayan gano digwan baki-baki. Domin gudanarwa da ta dace, a fesa asaman ganyen da kuma gefen kasan ganyen.
* Manoma suna duba alamomin funfuna daka lokacin da shukar ta fara fitowa.
* Lokutan Feshi:
  + Domin kala-kala cutar wanda suke da juriya magani (babu kalar cutar dake juriya gaba daya):
* Ayi amfani da maganin funfuna mai taba jikin shuka sati daya bayan fitowa.
* Yi amfani da magani funfuna na tsari idan kaso 1% na sukar suka fara nuna alamaun cutar.
* Ayi amfani da maganin funfuna mai taba jikin shuka sati uku idan girbi ya wuce sati biyu.
* Domin kalar da basu da juriya lokacin damuna:
* Ayi amfani da maganin funfuna mai taba jikin shuka sati daya bayan fitowa.
* A juya zuwa magani funfuna na tsari duk bayan sati uku.
* A tsayar da feshi sati biyu kafin girbi.
* Domin kalar da basu da juriya farkin damuna:
* Ayi amfani da maganin funfuna mai taba jikin shuka sati daya bayan fitowa.
* Yi amfani da magani funfuna na tsari idan kaso 1% na sukar suka fara nuna alamaun cutar.
* Ka bishi da maganin funfuna mai taba jikin shuka duk bayan sati biyu.
* Idan kaso 1% na shuka suka nuna alamun kamuwa da cutar, a juya zuwa amfani da maganin tsari nan take.
* A tsayar da feshi sati biyu kafin girbi.

*Cutar Bakteriya:* Wanan cutar na yaduwa ta tushe mai dauke da cutar, kayan aikin gona, dabbobi, ko kasa, sanan tana iya zama a kasar tsawon shekara hudu ko sama da haka. Cutar bakteriya na yaduwa da sauri a yanayi mai dumi. Alamomin cutar sun hada da futar ruwa daka ido da kuma rubewar tushe, yana yaduwa daka zoben kasa.

*Kulawa*

* Yi amfani da tsaftatacen gona, iri, da kayan aiki.
* Ka jujuya noman dankali da noman masara da wake. A kalla ka juya bayan kaka daya in babu cutar bakteriya, kaka biyu in idan kasa da kaso 5% na shuka na dauke da cutar, da kuma kaka uku idan sama da kaso 5% na dauke da cutar.
* Ka cire tushe daka jikin bishiya mai cutar, ka futar dasu daka gona a cikin bokiti ko jaka ba tare da kazubar da kasa ba kaje ka zuba su a rami.
* Ka cika hannu biyu da toka ko hannu daya da abu mai tsami a ramin da ka cire bishiya mai dauke da cutar.
* Idan aka shuka dankali ta hanyar noma rani, ayi ruwa hanya da zai futa kar ya taru ya zama kwatami.
* Gurbatatu\* wuraren da suka kamu da cutar bakteriya.

*Bakin kafa ko rubewa:* Ita wanan cutar bakteriya tana sa bishiyar dankali ta motse ta mutu. Tana kama kara da tushe lokacin da bishiya take girma da ajiya. Cutar na yaduwa hanyar abubuwa maus dauke da cutar kamar dankalin turawa, iska, ruwa, kasa, kayan noma, da dabbobi.

*Kulawa*

* Ka jujuya noman dankali da noman masara ko waken suya ko gurjiya.
* Ka ware sanan ka lalata dankalin dake dauke da cutar a tushe ko bishiya, ka shuka tushe mai lafiya kadai.
* Ka guji shuka tushe a wuri mai danshi, ko tarun-ruwa, ko inda ruwa ya taru, ko tsayayan ruwa tunda a wadanan yanayin ke kawo barkewar da kuma yaduwar cutar bakar-kafa.
* Ka kare dankalin turuwa daka lalacewa lokacin tsiga, jirkita kasa, yin kunya da kuma girbi.
* Kayi girbin dankalin d aya nuna a busheshen yanayi.
* Kayi amfani da tsaftatacen tushe.
* Ka wanke kayan aikin gona bayan shuka da tsiga.

*Tsutsa da Tsutsar jijiya:* Wadanan kananen tsutsotsi ne da suke rage yawan amfanin gona, suke janyo rashin girma, baa ganin su da ido, zasu iya zama a kasa har zuwa shekara 30. Suna yaduwa ne gonar dankali ta kayan noma da tushe mai dauke da cutar.

*Kulawa:*

* Ka shuka
* Ka shuka tsaftatacen irin idan da akwai

*Cututukan Birus:* Da akwai cututuka birus kala-kala. Alamomi sun hada da lankwashewa ganye, dugo-dugo, dakile girma, tsayuwa (kara da ganyaye na kallan sama), yagewa a karshen ganye, chlorosis (yallon ganye).

*Kulawa*

* A shuka irin tushe mai lafiya. A koyi zaben na gari, wanda yake nufin zaben bishiya dankali da ya fi kyau ta zama uwar shuka da zakai a gaba. Kai shaida akan bishiyar da tafi lafiya idan tayi furai. Sai ka duba girma, yanayi, lamba, da kuma zubin tushen bishiya da kaiwa sheda kafin ka karbi tushe a matsayin iri. Ka zabi da take da:
* Masu girma.
* Suna da kaurin sanda.
* Suna da koren gayen.
* Tana da yawa, girma, da kuma zubi mai kyau, da;
* Wanda bai nuna alamun cutar bakteriya, da kuma birus.
* Idan dankalin da za’a ci ne, ba’a so a fesa maganin dankalin da ke dauke da birus din, said ai idan sus uke kawo lalacewan.

*Domin Karin bayani, duba mukala 1, 2, 3, da 8.*

**Ma’anoni**

*Gurbatatu:* Cire bishiya mara kyau ko mara kwari

*Tsirai*: Kananun kwayoyin halitta da fungi ke fitarwa

***Ain azan iya samun wasu bayanai akan wanan maudu’in?***

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## **Yabo**

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