

# Fakiti na 110, Abu na

# Nau’i: Shimfida

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**Shimfida: Rage Asara Tumatur Bayan an Gama Girbi**

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**Gabatarwa**

***Me yasa wannan Maudu’in yake da mahimmanci ga masu sauraro?***

Saboda masu noma da sarafa sababin tumatir bayan girbi ya dace su san:

* Lokacin da ya dace ai girbin tumatir da yanda za’ai girbin na shi da kyau.
* Yadda za’a rage asarar tumatir a cikin gona da wajen ta.
* Daidai yanayin muhallin da ya dace a ajiye sababin tumatir.
* Mataken lalacewan tumatir a gabar girbi daban daban.
* Lokacin da za’a tsinki tumatir da za’a sarafa, da lokacin da zaa tsinki tumatir da za’a kai kasuwa ta kusa da ta nesa.
* Hanyoyin rage asara bayan girbi.
* Hanyoyi mafi kyau na kula da tumatir ana cikin girbi da bayan girbi.
* Hanyoyi mafi inganci da sauki na kare tumatir da suke girma.

***Menene gaskiyar wasu abubuwa?***

* Iyakacin rayuwa tumatir wata 3-4, ya danganta da wana iri ne, za’a iya cigaba da girbin sa kuma har zuwa wata daya ko sama da haka.
* Ana girbin tumatir ne da sasafe ko dayamma duku-duku, an fiso ai girbin sa lokacin da yanayin zafin gari yake da kasa da digiri 20 na maunin Celsius kuma gari a bushe ba’a ruwa.
* Tumatir mai kyau da inganci yana da tauri, da kuma ruwa aciki, haka kuma acikin kasuwanni na masu hali, zaka ganshi launin su daya kuma girman su daya, madaidaita ko kuma manya. Yayan itatuwa da za’a fitar waje zasu zama iri daya a; nuna, launi da girma.
* Tumatirin da zaa sarafa shi ya zama ketchup, chutney, puree ko kuma lemun sha zaa girbe shine lokacin da yayi jajawur.
* Tumatir da za’a sayar a kasuwa za’a iya girbe shi yana kore a nuna shi da ka baya. Amma, tumatirin da aka girbe yana kore yana da sinadiran gina jiki kadan.
* Yanayin da aka bada shawara ayi girbin tumatir shine digiri 12 na maunin Celsius, da kuma kaso 86-90% na yanayin danshi a cikin iska. Tumatir zai lalace in aka ajiye shi a yanayin zafi na digiri 10 maaunin Celsius sama da sati biyu, ko kuma a digir 5 bisa maunin Celsius sama da kwana 6-8. Za’a iya ajiye tumatir na sati 2-3 a yanayin zafi da baiyi kasa da digiri 10 na maunin Celsius.
* Tumatir na cenjawa da yanayi kamar; iska, danshi, zafi da kuma sanyi-wanda yake sa launin sa ya zama wani iri. Haka zalika, tumatir nayin laushi da wuri, zai iya kuma kasa nuna sosai har ya ribe idan aka ajiye shi a kasa da yanayin zafi da aka bada shawara.

***Menene manyan kalubale wurin rage asarar tumatir bayan girbi?***

* Masu noma a nahiya Afirka yawanci basu da mazubi da ya dace ayi girbin tumatir, a maimakon haka sai suke amfani da ragar itace ko kuma kwandon saka da yake jiwa tumatir ciwo.
* Tituna marasa kyau na janyo rashin sauri wurin kai tumatir kasuwa, sai ya kara yawan asara tumatir bayan anyi girbi.
* Rashin wuraren da za’a ajiye tumatir a yanayin zafi da sanyi da ya kamata, wanda yake rage baci.
* Amfani da hanyoyin sufuri marasa kyau wurin kai tumatir kasuwa, kamar mashin, wanda yake rawa yake girgiza, har ya janyo lalacewar kayan itatuwa.
* Tumatir na da saurin lalacewa, kuma rashin kasuwa a kusa na iya janyo lalacewa, ya kara yawan asara bayan girbi ga manoma.
* Manoma dayawa na noma tumatir a lokaci daya a maimakon su dan jinkirta shuka a tsakanin su. Wanan yana sawa kasuwa tayi cunkus, har ya kawo asara sosai bayan girbi.

***Bangaren Jinsi a wurin rage asara tumatir bayan girbi***

* A garin Mbeye, dake kasar Tanzania, mata ne suka danne kasuwar saida tumatir, saboda sune ke da alhakin tabatar da abinci a gidajen su, su kuma maza basa so su sa kansu acikin sayarwa.
* A garin Brang-Ahofo, wani bangare a kasar Ghana, maza da mata masu shekaru daban-daban na noma tumatir, kuma kaso mai yawa na maza masu kananen shekaru sun kware wurin noma tumatir kadai.
* A garin Imeko Afon, wani gari a jahar Ogun, dake kasar Nijeriya, maza ne suka danne noman tumatir.
* A garin Koluedor, kasar Ghana, yana yawan faruwa kaga mata da miji na noma tumatir a gona daban-daban.
* A jahar Kwara, Nijeriya, kaso 70% na masu saida tumatir mata ne.

*Domin Karin bayani, ka nemi takardu na 3, 4, 5, 6, 8,* 9, 10, 11, and 12.

***Hasashen tasirin sauyin yanayi akan asara noman tumatir bayan girbi***

* Karin zafi na shafar girman kayan itatuwa, yana janyo raguwar amfanin noma.
* Karin zafi na iya janyo chanjin sinadirn gishiri a kasa, wanda ke rage amfanin noman tumatir. Wanan ya na tasiri sosai a kasa da take da gishiri sosai.
* Yanayin zafi sama da digiri 25 na maunin Celsius na kawo cikas ga girman kayan itatuwa a tumatir.
* Zafi mai yawa na haifar da kanana tumatir.
* Sauyin yanayi na yawan kawo bushewar kasa, wanda yake kawo bushewan tumatir.

*Domin Karin Bayani, duba takardun 1 da 2*

***Bayana masu mahimmanci domin rage asara tumatir bayan girbi***

**Kafin ayi Girbi**

A yayin da yayan tumatir ke girma, suna saurin kamuwa da kwari da cututuka. Manoma zasu iya rage asara tumatir a gona ta:

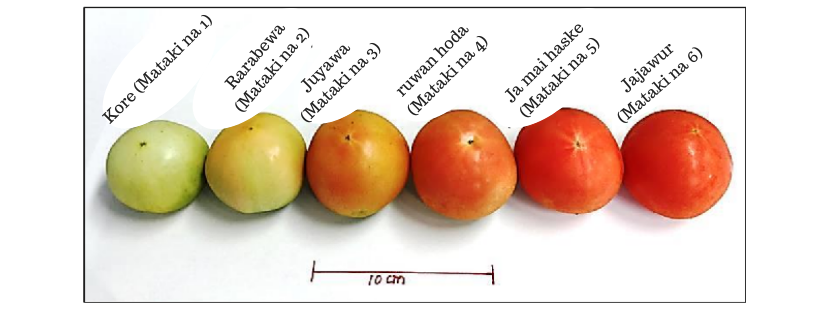
* Kula da girman tumatir sosai dan gano lokacin da ya kamu da kwari ko cuta, da kuma tantance shukar da take cikin damuwa domin rashin sinadirai ko kuma yawan ban-ruwa ko kuma rashin ban-ruwa.
* Bin shirin hadaka na sarafa kwari wanda ya kunshi sinadirai, injina, al’adu da kuma wasu hanyoyi da suke da tasiri.
* Daukan mataken kariya dan kora cututuka kafin su afku, kamar:
* Kafa tarko dan kamun kwari da katange gona dan kariya daka dambobi.
* Zai iya zama dole ayi amfani da maganin kwari dan kariya daka wasu kwari, a misali; *Tuta absoluta,* da cuta fungi, musamman idan gonanaki kusa sun kamu da cuta.

Wadannan wasu hanyoyi ne ‘na gida’ da manoma zasu iya amfani dasu su kula da kwarin tumatir a gona:

* Hadin kanazir da sabulu yana temakawa wurin kawar da kwari, gara, tsutsar tumatir da kwarun ganye.
* Hadin sabulun ruwa na kawar da kwari da tsutsar tumatir.
* Idan aka ajiye fitsarin Saniya na sati biyu, aka hada shi da ruwa, yana tasirin wurin kawar da kwari, gara, tsutsar tumatir, da wasu kwarin, da kuma mosaic virus da kuma cututuka fungi.
* Feshin irin nim da aka jika da ruwa na kawar da ire-iren kwarin da muka fada a sama da kuma nematodes.
* Bangare uku na kashin shanu da aka jika da ruwa a bokiti, aka ajiye na sati biyu, kullum ana juyawa, sanan a tsarma shi kafin fesawa, yana da tasiri wurn kawar da kwari da cutar fungi.

**Girbi**

Tunda yayan-itatuwa da suka nuna sunfi saurin lalacewa da rubewa, girbin tumatir a lokacin da ya dace yana rage asara bayan girbi. Za’a iya girbin tumatir lokacin da yake kore ko kuma farkon fara yin ja, ko kuma sanda yayi ja mai haske, ko kuma lokacin da yai jajawur ko ya nuna.



Saboda tumatir na saurin lalacewa, yana da muhimmanci a dau wadanna mataken kiyayewa lokacin girbi:

* Tsaftace hannu da mazubi kafin daukan tumatir.
* Girbe tumatir ta hanyar murda shi a hankali aka jikin shuka.
* Bokitin roba da raga-raga ta roba sune mazubi da suka fi dacewa a debi tumatir
* A ajiye tumatir ahankali a cikin mazubi-ba’a ringa jefawa ba.
* A juye tumatirin da aka girbe daka mazubin diba zuwa manyan mazubai. Manyan mazubai ya zama suna da fadi da kuma zurfi dan kada a matse kayan-itatuwa.
* Manyan mazubai kar su wuce nauyi 25 maunin kilogram, idan aka cika su da nunanu, manya-manya tumatir wadanda kuma basu lalace ba.
* Kada ka bude girbaben tumatir karkashin hasken rana.
* Idan zakai sufurin tumatir wuri mai nisa, kayi girbin shi lokacin da ya fara nuna, idan kuma kasuwa ce ta kusa, kayi girbin shi lokacin da ya nuna.

*Domin Karin bayani, duba takadu na 4, 5, 6 da 9.*

**Tantancewa**

Bayan ka girbe tumatir, ka wanke su, sanan ka tantance su a bisa girma, launi da kuma inganci. Ka tabatar da wurin tantancewa yana da sanyi da tsafta kuma babu hasken rana. Dan kare gurbata kayan noma, mutane masu tantancewa ya kamata ace hannusu da kayansu a tsaftace suke.

**Kunshewa**

Kunshewa na kara daraja da kuma nisan kwana girbaban tumatir. Tumatirin da aka kunshe da kyau baya lalacewa da wuri, yafi bada sha’awa a idan masu saya, kuma yafi kawo wa masu noma kudi. Kunshewa da ta dace na kare tumatir daka cututuka, danshi, zafi mai yawa, murkushewa, da lalacewa lokacin sufuri.

Ana kunshe tumatir ta wadannan hanyoyi:

* A cikin kwali, kwandon saka, akwatinan katako na musamma, akwatinan takada mai karfi, kwalaben roba, da tukunya kasa.
* Zaka iya amfani da koren ganye ko ganyen ayaba dan ciko a mazubin da ake kunshe tumatir dan laushi da kariya daka murkushewa.

**Sufuri**

Idan ana sufurin tumatir, manoma su dena amfani da mashina, domin girgizan mashin din na lalata tumatir. A duk lokacin da ya kamata, manoma suyi amfani da manyan motoci masu firji domin sufurin tumatir, da kuma tabbatarwa kayan an kunshe su sosai dan kariya daka lalacewa ayayin da mota take tafiya. Idan babu firji acikin sufurin, a lullube motar da zabari ko kuma tempol domin rage jibi na tumatir.

Manoma su na amfani da akwaku na roba domin tabbatar da lafiya sufurin amfanin gona.

**Bushewa**

Bushewa wata hanyar sarafa tumatir ce. Idan manoma sukai girbi mai yawa, zasu iya shanya tumtir ya bushe domin adanawa da kuma rage asara bayan girbi. Tumatir mafi kyau wurin busarwa sune wadanda sukai bul-bul da kuma karfin su, a misali, *Roma*. Kafin ka busar da tumatir, ka tsoma shi a ruwan zafi na minti 1-2 dan cire cututuka. Za’a iya busar da tumatir a rana a budaden wuri mai iska ko kuma a busar dashi ta wasu dabarun inji.

* *Busarwa a budaden wuri mai iska:* A wanke tumatir, a raba shi gida biyu ko hudu, sai a daura akan shafafen mazubi mai tsafta, inda aka yanka yana kalon rana. A daura tumatir a farantai da aka rufe da leda asa akan abu mai tudu. A rufe shi da gidan soro ko kuma auduga dan kariya daka lalacewa a sakamakon kwari, dati ko kura. Busarwa a rana na dauka kwanki 2-5 idan ana iska sosai kuma iskar ba danshi. Sakamakon shine tumatir da yayi baki, ja da kuma kaushi wanda yake da kaso 15-20% na danshi. Idan aka cigaba da busarwa, danshin sa zai ragu zuwa kaso 5% cikin dari, sanan bushashen tumatirin da yayi tauri, yana murmushewa za’a iya daka shi zuwa gari ko burbushe ayi amfani dashi wurin miya. Yana da sauki a ajiye tumatir a matsayin gari ko burbushi.
* *Busarwa ta inji.* A busarwa ta inji, injinan busarwa masu amfani da hasken rana ko kuma injina da ke amfani da fetur ake amfani dasu wurin busar da tumatir. Ka tabatatar ka saita zafin inji kar ya wuce digiri 65 na maunin Celsius, idan zafi yayi yawa, zai iya cenjawa bushashan tumatir din dandano.

**Sarrafawa**

Sarrafa tumatir na rage asara bayan girbi kuma yana bada amfanin gona da zai dade ya kai har shekara daya ba tare da ya lalace ba. Yana kuma cire yan mitsitsin hallutu da suke janyo lalacewa kuma ya tabbatar da an sanya tumatir a mazubi da suke hana rubewa. A gidaje, jajjagagen tumatir ana sarafa shi ayi lemun tumatir, miya, kirim ko kuma niqaqen tumatir.

*Yadda akeyin jajjagagen tumatir*

* Ka yi amfani da tumatir da ya nuna kadai wurin yin jajjage.
* Wanke tumatur ka tsoma shi a ruwa na minti biyu dan ya kashe kananen cututuka da suke fata.
* Ka jajjaga tumatur da turmi da tabarya.
* Ka cire fata da yayan cikin tumatir da rariya mai kaushi da ramunta bai wuce girman 4mm ba, sai kuma kayi amfani da rariya da ramunta bai wuce 1mm ba dan yayi sumul.
* Jajjagagen tumatirin yayi daidan sarafawa. Ka dafa shi da sauri dan kashe mitsatsen haluttu da sinadiran dake gina jiki. Zafi na kashe sinadiran dake sawa kwayoyin tumatir su rabu tsakanin jajjagage da kuma ruwa, a wurin ajiya.
* Ka dafa jajjagen a tukunya karfe ko tasa, kana cigaba da jujuyawa. Bayan ka dafa duka tumatirin, ka kyale shi ya huce na minti biyar kafin ka maida shi ruwan itatuwa.
* Ka sa jajjagagen tumatir a firji dan amfanin gaba.

*Amfanin Jajjagagen tumatir*

Zaka iya yin lemun tumatir ta karawa jajjagagen tumatir gishiri da leman tsami. Niqaqen tumatir da tumatirin gwangwani ana yinsu ne ta dafa jajjagagen tumatir har sai ruwan ya fita, anayi ana jujuyawa kar ya kone. Niqaqen tumatirin yana yin launin ja mai duhu, kuma zaa iya sa gishiri dan ya bada dandano.

**Ajiya**

Idan babu kasuwa da zaka kai tumatirinka, ka ajiye a wuri mai sanyi dan ka rage lalacewa/ko kuma assara bayan girbi.

* Ana bada shawara a ajiye tumatir a yanayi daban-daban daidai da yanayin nunarsa. A misali, ana bada shawara cewa koren tumatir yafi nuna a yanayin zafi 13.9-15.6 maunin Celsius bayan an sanyaya shi a digiri 10 na maunin Celsius na sati biyu.
* Mafi rinjaye, a ajiye tumatir a digiri 12 maunin Celsius, da kuma kaso 85-90% na yanayin iska mai danshi.
* Domin rage lalacewa wurin ajiya, ka nan-nade nunanan tumatir da koren ganye. Kana cenja ganyen duk bayan kwana biyu ko uku har sai an sayar da tumatirin.
* Kar ka bari zafin wurin ajiya yayi kasa da digiri 10 maunin Celsius.
* Tumatirin da suka girma zasu iya kaiwa sati 2-3 inde an ajiye su a yanayin da ya dace.

*Domin Karin bayani, ka duba takadu na 4, 5, 6 da 9.*

***Fassara***

Tururi-jibi a shuka: komawar ruwa daka kasa zuwa sama ta hanyoyi biyu: tashin ruwa sama daka kasa da kuma tashin ruwa daka jikin shukoki zuwa sama.

*Jibi a shuka:* Wanan hanya ce ta yada tsirai suke samun ruwa ko danshi daka jijiyoyin su a kasa zuwa kananen kofofi da ke jikin ganyayakin su, inda yake komawa tururi ya tashi sama. Jibi-a-shuka na nufin komawar ruwa zuwa turiri ya tashi sama a shuke-shuke.

***A ina zan iya samun wasu kayan-aiki akan wanan maudu’in?***

1. Abewoy, D., 2016. *Advances in Crop Science and Technology.* <https://www.omicsonline.org/open-access/review-on-impacts-of-climate-change-on-vegetable-production-and-itsmanagement-practices-2329-8863-1000330.pdf> (372 KB)
2. Abou-Shleel, S.M., and El-Shirbeny, M.A., 2014. *GIS Assessment of Climate Change Impacts on Tomato Crop in Egypt.* <https://idosi.org/gjer/gjer8(2)14/2.pdf> (930 KB)
3. Ayandiji A., Adeniyi O.R., Omidiji D., 2011. *Determinant Post Harvest Losses among Tomato Farmers in Imeko-Afon Local Government Area of Ogun State, Nigeria.* <https://globaljournals.org/GJSFR_Volume11/5-Determinant-Post-Harvest-Losses-among-Tomato.pdf>(487 KB)
4. Arah, I.K., et al, 2015. *An Overview of Post-Harvest Losses in Tomato Production in Africa: Causes and Possible Prevention Strategies.* <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.862.3331&rep=rep1&type=pdf> (2.42 MB)
5. Cantwell, M., undated. *Post Harvest Handling of Tomatoes.* <http://ucce.ucdavis.edu/files/datastore/234-1362.pdf> (1.92 MB)
6. Department of Agriculture Forestry and Fisheries, Republic of South Africa, undated. *Production Guidelines for Tomato.* http://www.nda.agric.za/docs/Brochures/ProdGuideTomato.pdf (2.48 MB)
7. Food and Drug Administration, UC Davis, Western Institute for Food Safety and Security, undated. *Tomatoes.* <https://www.wifss.ucdavis.edu/wp-content/uploads/2016/10/Tomatoes_PDF.pdf> (6.20 MB)
8. Issah, M., 2007. *Right to Food of Tomato and Poultry Farmers Report of an investigative mission to Ghana*. <http://germanwatch.org/handel/ffm-ghana.pdf> (644 KB).
9. Naika, S., et al, 2005. *Cultivation of tomato production, processing and marketing.* [https://publications.cta.int/media/publications/downloads/1296\_PDF\_1.pdf](https://publications.cta.int/media/publications/downloads/1296_PDF_1.pdf(767) (767 KB)
10. Okali, C. and Sumberg, J., 2012. *Quick Money and Power: Tomatoes and Livelihood Building in Rural Brong Ahafo, Ghana*. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.880.2808&rep=rep1&type=pdf> (390 KB).
11. Salau, S.A., and Salman, M.A., 2017. *Economic analysis of tomato marketing in Ilorin metropolis, Kwara State, Nigeria.* <https://scindeks-clanci.ceon.rs/data/pdf/1450-8109/2017/1450-81091702179S.pdf> (241 KB).
12. Sanga, A., and Mgimba, C., 2016. *An Analysis Of Constraints That Affect Smallholder Farmers In The Marketing Of Tomatoes In Mbeya Urban And Peri-Urban, Tanzania.* <https://www.onlinejournal.in/IJIRV2I3/106.pdf> (257 KB).

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