Agence Japonaise de Coopération Internationale

Ministère du Développement Agricole

Etude de Développement des Oasis Sahéliennes en République du Niger (EDOS)

Jagoran Tafiyar da ayyukan noman shinkafa

(iri na NERICA)

Support de Formation sur la conduite de la riziculture

Pour les exploitants

Octobre 2007

Agence Japonaise des Ressources Vertes (J-Green)

Elaboré par l'INRAN dans un cadre contractuel signé avec EDOS

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Gabatarwar farko

Wannan littafin, jagora ne ga manoman irin shinkafa ta NERICA a cikin kwari.

Gurin da ake son cin ma a nan, shi ne na ƙarfafa husa'o'in noman shinkafa cikin guraben ruwa, masamman ma na irin shinkafar NERICA don bunƙasa amfanin noman shinkafa a ƙasar Nijar.

An wallafa wannan littafin tare da tallafin kuɗi daga EDOS da JICA.

Muna jan hankalin waɗanda aka yi wanga littafin saboda su, don su yi amfani da shi sosai.

Sa- hannu :

Dr SIDO Y. Amir
Jami'in zaɓen irin shinkafa
Shugaban sashen noman ban ruwa INRAN
Nijar

Gabatarwa

A Nijar, a fuskar samun amfani da yawan hilayen, noman shinkafa ne na uku bayan hatsi da dawa. Amma, shinkafar da ake nomawa a cikin ƙasa, kashi 1 ne kaɗai bisa 3 na buƙatun al'umma, duk da an kimanta ta a kann tan 70000.

Bunƙasa noman shinkafa ta hanyar ban ruwa, yana bada damar rage tsananin noman sauran cimaka da ake yi, kuma yana bada damar ɗaukar wasu matakan kokowa da ƙarancin abinci a cikin Afirika ta yamma, masamman a ƙasar Nijar.

Sabon iri na shinkafar NERICA da aka binciko saboda nahiyar Afirika, irin da ya dace a cikin yanayi daban daban (na ruwan sama, da na kwari, da na ban ruwa), hanya ce ta ƙara samar da irin shinkafa, da kuma bunƙasa noman shinkafa a Afirika.

Wannan sabuwar husa'ar da aka kawo kuma aka yaɗa a cikin ƙasar Nijar, masamman ma a cikin yankuna inda EDOS da JICA suke aikin kawo taimako, za ya taimakawa sosai wajen kyautata halin rayuwar al'umma.

Mine ne NERICA?

Iri biyu na shinkafa masu matsalolin da ke rage bunƙasarsu

- Irin shinkafar Aziya (Oryza Sativa) da irin shinkafar Afirika(Oriza glaberrima).
- Masu binci suka yi niyyar haɗa irin biyu(da O. glaberrima, da O. Sativa).
- NERICA = Oryza sativa x Oryza glaberrima

Neman bayanai bisa aikin noman shinkafa

Neman cikakkun bayanai, shi ne mataki na farko da ya kamata a **ɗauka idan** ya zamanto ana sabon shiga cikin aikin noman shinkafa.

Ba shakka, an hi samun cikakkun bayanai diman a wurin sassan ma'aikatun gwamnati waɗanda suka ƙware kan wannan fannin; kamar ma'aikatun aikin gona na garuruwa da na jahohi, da cibiyoyin jahohi na bincike kan fannin noma, da sauran su.

Bayanan farko, su ne da suka shafi:

- Halin da ƙasar take ciki (idan ta dace ko ba ta dace ga noman shinkafa ba);
- Wadatattun ruwa;
- Ire-iren shinkafar da suka dace da yankin, kuma da halin samun su.

Ana ba da mahimmiyar sa-hanya ga duk mai son yin noman shinkafa, ya nemi waɗanga bayanan uku(3) da aka zana a wurin sassan ma'aikatun aikin gona na ƙasa.

Tafiyar da noman irin shinkafar NERICA

Fangali(wurin ɗibar dashe)

Noma

- Don kawo sarari cikin ƙananan fangalai, sau biyu ake noman su da zurhin santimetir 15 zuwa 20.

- Ana iya yin noman kalme, ko noman shanu (wanda aka fi yi a Nijar), ko da wani inji.

Noman kalme

Noman shanu

Daidaita kwancin hili

Farfashe manyan dunƙullan ƙasa ake yi don hilin ya daidaita da kyau. Ga wanga aikin, an fi yin amfani da kalme mai dogon mariƙi (na ice), da mashari(ko manjangara).

Daidaita kwancin hili

Gina wurin shibka

- Ramu ne ake yi masu faɗin santimetir 50 zuwa 60, da zurhi santimetir 10 zuwa 15, da kuma santimetir 100 tsakani

- daidaita ramun, su zama ir

- a sanya takin gargajiya da na zamani,

- a nome, kuma a daidaita kwancin hilin

Gina wurin shibka

Sanya irin shibka cikin fangali

-Ana watsa shi cikin hilin da aka nome, kuma aka daidaita kwancin

-yawanci, kilo 35 zuwa 40 ne ga kowace eka

Sanya iri cikin fangali.

Taki cikin fangali

- Kilo 1 na takin gargajiya, da garam 53 na takin zamani cikin faɗin metir 1

- ana sauran kwana 3 kahin yin dashen, sai a sanya garam 7 na takin masana'antu cikin faɗin metir 1 don ƙarfafa sayun, da gaggauta kamawarsu

Takin gargajiya

Takin ma'adinai

Ban ruwa cikin fangali

- Bayan an sanya irin, a riƙa yin ban ruwa sau 2 kowace rana

- Ga kowane ban ruwa, ana zuba milimetir 7 zuwa 10 na ruwan

√ Fusa'o'in da ake yin amfani da su, iri-iri ne.Ana iya yin ban ruwan fanho, ko na bututu, kuma da hanyar gwalalo

√ Fusa'o'in biyu na farko sun fi inganci.

Ban rowan fanho

Ban ruwan bututu

Ban ruwan gwalalo

Gonar shinkafa

Noman kalme

Noman gonar shinkafa

- Tunda ƙasar duddulalla ce, kuma da tauri, sai an bari ruwan sama na ban ruwa sun jiƙa ta sosai,

  - a baza takin na cikin ƙasa
  - a yi saurin nomewa tare da wargaje dunƙullan

Noman gonar shinkafa

Gina madatsun ruwa

Ana yin madatsun ruwa don kare gonakin shinkafa ga ambaliyar ruwa. Ana yin madatsun ruwan manya ko ƙanana dangane da ƙarfin ambaliyar.

Banda haka, ana ƙara yin makwararar ruwa saboda ban ruwan gonakin, ko a yi sagi don rage ruwan.

Maida wurin caɓo da daidaita kwancinshi

- Caɓo yana sulhunta aikin shibka dashen, kuma yana sanya dashe ya kama, ya tashi da kyau,
- sai an daidaita kwancin hilin, san nan a yi dashen; ana iya shan milimetir 300 na ruwa.

Caɓo da daidaita hilin

Taki na cikin ƙasa

Ana sanya takin cikin ƙasa daidai kahin a nome, ko a lokacin
- arfashe dunƙullan ƙasa takin gargajiya: tan 2 ga eka 1 Takin hakukuwa: tan 10 ga eka 1 Takin zamani (15-15-15): kilo 100 ga eka 1

ɗibar irin dashe

Sai an ɗebo irin dashen, kahin a yi dashen. Rana guda ake ɗibar da yin dashen.

Wurin ɗibar, a yi hankali da kurakurai kamar haka:

- Kar a ɗebo dashe da yawa gaba ɗaya don gudun lahanta su,
- kahin a yi ɗarmi-ɗarmi na dashen, sai an hidda ƙanana maras ƙwari da maras say
- a wanke ƙasar da ke ga sayun don sulhunta dasawar

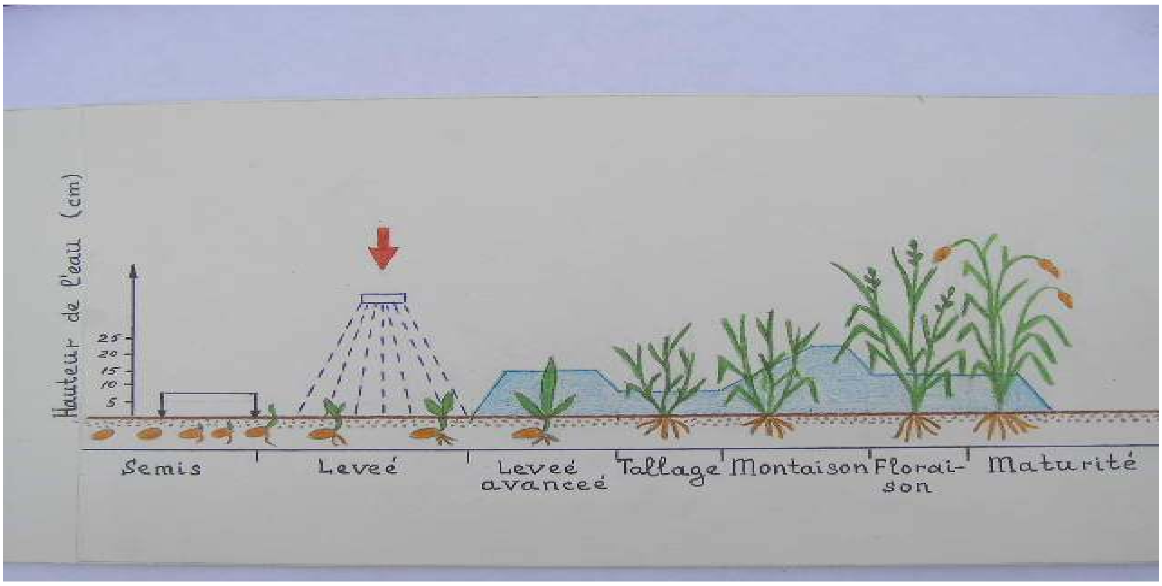
ɗibar irin dashe

Dasawa

- A dasa a cikin laka maras kabri sosai
- kar a sanya ƙananan dashe ƙwarai, kuma da waɗanda suka daɗe sosai (masu kwana 20 zuwa 30)
- a yi ɗarmin dashe uku-uku, kuma a dasa su a jere, da santimetir 20 tsakanin su

Dasa shinkafa

Ban ruwa cikin gonar shinkafa



Ban ruwa cikin gonar shinkafa

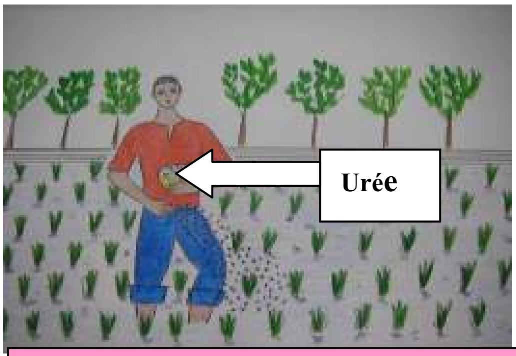
Adadan santimetir ɗin, suna nuna hawan ruwa daga santimetir 2 darabi a lokacin dashe, zuwa santimetir 15 a lokacin da shibkar ta hau kara. A lokacin hawan kara da hure, ana bukatar santimetir 10 na hawan ruwa. A lokacin yanka, rowan suna sabka daga santimetir 2har ƙwahewarsu.

Bayan an sanya dashen shinkafar, a bari su nitsu cikin ruwa masu zurhi har tsawon kwana 3; kwana 20 kahin hitowar zangarnu, sai a sa masu ruwan da ba su cika zurhi ba. San nan, kwana 3 zuwa 5 kahin ɗibar amfanin, sai a riƙa yin ban ruwa sau 2 ko sau 3 na ruwa ƙalilan..

Takin tattalin dashe

takin masana'antu

- kilo 20 na takin masana'antu ga eka 1,
- kilo 10 ga eka 1 a lokacin da zangarniya ta hito ko'ina



Takin tattali cikin gonar shinkafa

Dole ne a sanya ma shinkafa takin tattali. Rishin shi isasshe yana sanya dashen ya ɗauki launin masara;to sai a yi sauri a sanya takin masana'antu.

Kokowa da miyagun hakukuwa

- cira da hannuwa Da hannuwa ne ake yin cirar. Kwana 10 bayan dashe ake yin cira ta farko
- cira ta hanyar magani na kimiya yin amfani da magani na kimiya kamar Londax, garam 80 ne maganin ga eka 1, ta hanyar watsa ɗashe-ɗashi

Tunda masu yin aikin shinkafar, yan koyo ne, muna ba da shawarar a yi cira da hannu.

Cira da hannuwa

Cira ta hanyar magani kimiya.

Yanka

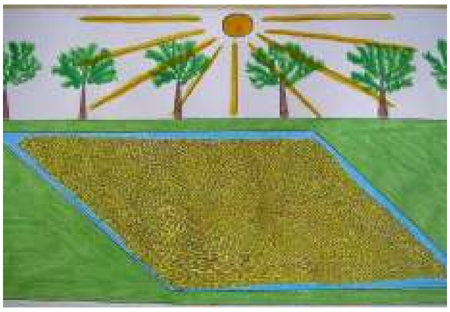
- Da lauje ake yin yankan; gindi 3 zuwa 5 ake yankowa daidai tsawon santimetir 5 zuwa1
- ana gane ƙosawar shinkafar in kashi 80 cikin 100 na ƙananan ƙwayoyin da ke cikin zangarnun sun rage launi.

Yankan shinkafa

Bugun shinkafa da shanya ta

- yana sanyawa a raba tsaba da hakukuwa
- yawanci a bisa tano ne ake bugun
- bayan an buge, sai a shanya tsabar don ta bushe ga rana cikin tsawon awa 2 zuwa 3, tare da ana yamutsa tsabar lokaci zuwa lokaci.
- Bayan haka kuma, sai a shanya tsabar a cikin inwa mai ɗan damshi kaɗan.

Bugun shinkafa



Shanyar shinkafa

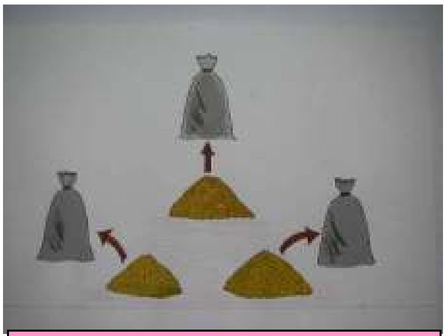
Shiƙa

- tana sawa a hidda tsabar da ba ta ƙosa ba, ko wanda ta lalace, da wasu abubuwa kamar ƙwari, da tsakuwa,..
- ya kamata a yi shiƙar a bisa wani tanti, kuma ga wani hili busasshe na gonar

Shiƙar shinkafa

Sanyawa cikin buhunna da kimshe

- A cikin buhunna ake sanya tsabar shinkafa
- An fi so a kimshe buhunnan shinkafar inda babu lema, kuma babu zahi.



Sanya shinkafa cikin buhunna

Kimshen shinkafa

Hidda kwabsa

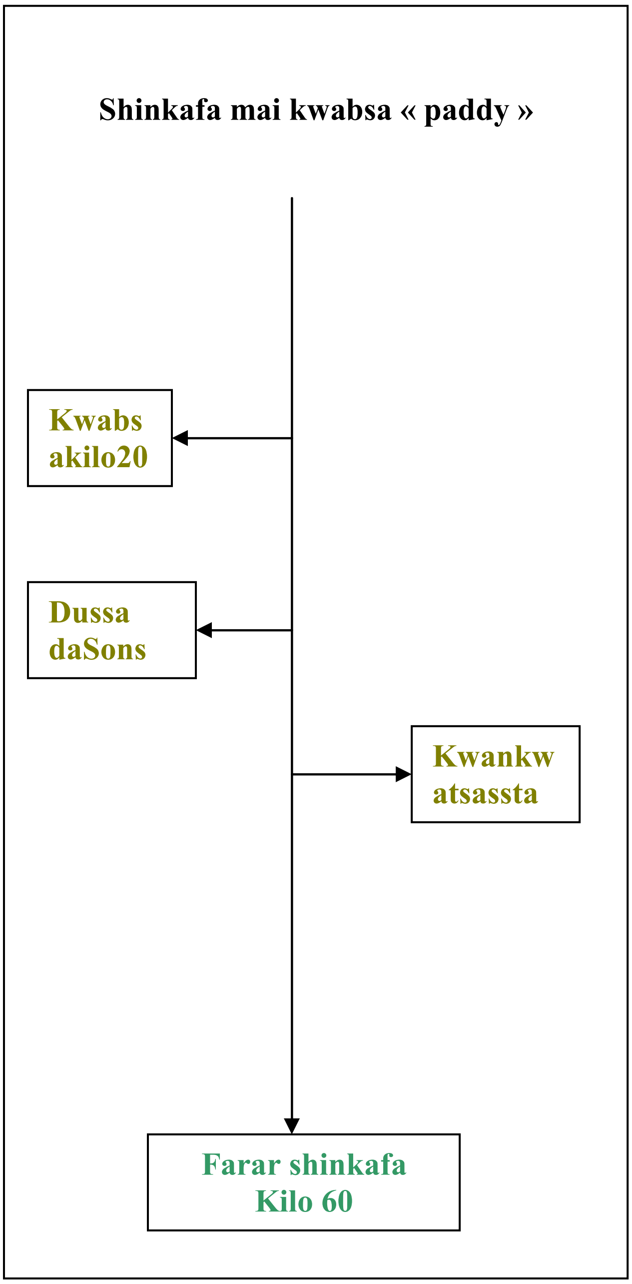
***Hidda kwabsa, aiki ne na hiddo** ƙwayar shinkafar daga cikin ƙoƙiyar da take lulluɓe ta. Ta haka ne ake samun shinkafar da ake ce ma«kargo». Daga nan sai kuma a ƙara raba ƙwayar da wasu fatoci masu tauri da suke rufe ta. A lokacin nan ne ake samun farar shinkafa.*

Shinkafar « paddy » : shinkafa ce mai kwabsa bayan an buga ta.

Shinkafa « kargo » : sussukakkar shinkafa ce bayan an fitar da kwabsar.

Farar shinkafa : shinkafa ce da ake samu bayan dukan ayyukan mashin. Ana cin ta haka.

Sassan ƙwayar shinkafa«paddy»



Hidda kwabsar shinkafa

Abubuwa masu addabar shinkafa da hanyoyin yaƙar su

I. Kwari

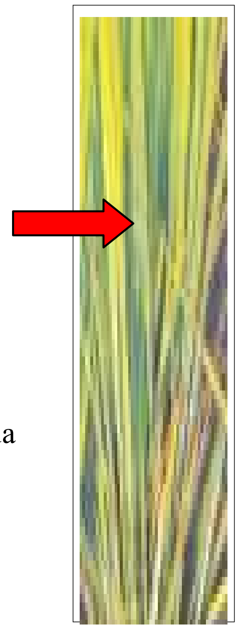
Borers na karan shinkafa

- **Ɓannarsu**
  - ✓ hasara ta kashi 5 zuwa 10 bisa 100
    tsutsotsi masu rarake karare, su cinye fatar shinkafa
  - ✓ ko ƙwayar ta mutu, ko kan ya yi fari

- **kamannu**
  - ✓ ƙwayaye a gangame, masu launi masara
  - ✓ tsutsotsi masu launin fari-farida tsawon milimetir12
    wasu masu launin ƙasa bisa karan shinkafa ko cikin
    ƙasa
  - ✓ Batata ƙarami mai maunin masara, mai fitowar dare
- **Yaƙi da su**
  - ✓ Toyewa ko binnewar abubuwan da suka yi saura bayan yanкa
  - ✓ Sanya magani kafin shigar tsutsar.
  - ✓ Décis 12 EC 11 ga kowace eka,milimetir 200 cikin bututun ban ruwa mai ɗaukar litir 15.
  - ✓ Malatium 50 EC litir 1 da rabi ga kowace eka,mililitir 60 cikin bututun ban ruwa mai ɗaukar litir 15 .
  - ✓ Sanya garam 1000 na ƙwayoyin karate ga kowace eka.

Farin ƙuda

- **Ɓannarshi**
  - ✓ shibka tana ƙeƙashewa
    Bushewar shibka a dalilin yawan cije-cijen ƙudan
    Matsala ga tashin shibkar



Kamannu
- ✓ Adulte minuscule
- ✓ Fararen kunnuwa
- ✓ Launin fari
  - ✓ ƙwayaye a bisa kowace fuska ta kunnuwan shibka
    Yayan tsutsa masu launin masara.
- **Yaƙi da ƙudan**
  - ✓ Sanya maganin kimiya(sinadari) mai tsada da wuya
  - ✓ Malathion 50 EC , litir 1 da rabi ga kowace eka, kuma da
    Mililitir 60 a cikin litir 15 na ruwa
    A yi ma fangali magani

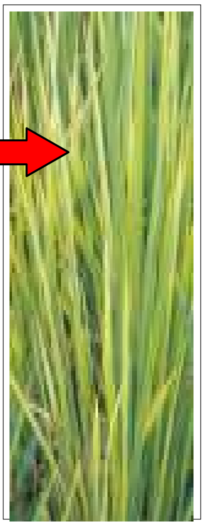
II. Cututtuka

Cuta mai sanya shinkafa ɗaukar launin masara

- **Abin da ke kawo cutar**
  - ✓ RYMV da ke shiga daga hannu
- **Yaɗuwar cutar**

  Ko'ina a cikin ƙasar
- **Alamomin cutar**
  - ✓ Kunnuwa suna ɗaukar launin masara
  - ✓ Tsage- tsage masu launin masara maso tsanwa
  - ✓ Tsimbirewar shibkar
- **Yaƙi da cutar**
  - ✓ Riga-kafi: «karbofurant»
  - ✓ diméthoate
  - ✓ tsabtace magudanar ruwa

  sanya iri mai ƙarko : WITA 8, IR 47686-15-1-1



Yaushin kunnuwan shinkafa

- **waron da ke kawo shi**
  - ✓ *Xanthomonas oryzae*
- **Yaɗuwar**
  - ✓ Wuraren da suka hi taɓuwa : Toula, Saga, Bonféba, Diomona.
- **Alamomin cutar**

  ƙuraje ko kumbirin kunnuwa mai maida su masara, san n
  - ✓ Naɗewar kunnuwan tare da yaushi.

Yaƙi da cutar
  - ✓ Sanya irin shinkafa mai ƙarko, ingantacce

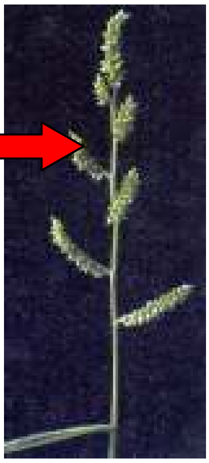
- **Sanya magani ga irin :** bretanol 45 garam 0,25 ga garam 100 na irin shibkar

III. Miyagun hakukuwa

Echinochloa colona

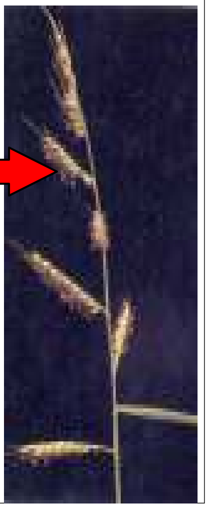
❑ **Kamannu**

√ Na shekara zuwa shekara
√ Miƙaƙƙun karare da ke hawa
√ santimetir30 zuwa 60 na tsawo
√ sayu ga gaɓoɓin ƙasa



Echinochloa stagnina

❑ ***Kamannu***
√ Na yau da kullum.
√ Karare masu gwaɓi, masu tuwa-tuwo ciki; masu Tsawon metir 2.
Miƙaƙƙun kunnuwa
√ Suna kai tsawon santimetir 30, kuma suna matsewa daga asa.



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