	Uburyo bwo gukusanya, gutunganya no gukwirakwiza amakuru kuri filiyeri y'imbutu mu Rwanda	Kode y'inyandiko: 41KR154I163v0
	IGICE CYA 4: UBUMENYI BW'IMIKORERE MU BYA TEKINIKI	Itariki yo kujyanisha inyandiko n'igihe UKUBOZA 2007
IFISHI IRANGA ITUBURA RY'IMBUTO ZIFITE ICYEMEZO : Imyumbati		Inyandiko ikomatanyije

Inkomoko y'inyandiko	Projet AFSR
-----------------------------	-------------

Itariki inyandiko yasohokeye	Ukwakira 2007
-------------------------------------	---------------

Umubare w'amapagi	4
--------------------------	---

IFISHI IRANGA ITUBURA RY'IMBUTO ZIFITE ICYEMEZO (semences certifiées)



Imyumbati (*Mannihot esculenta* Crantz.)



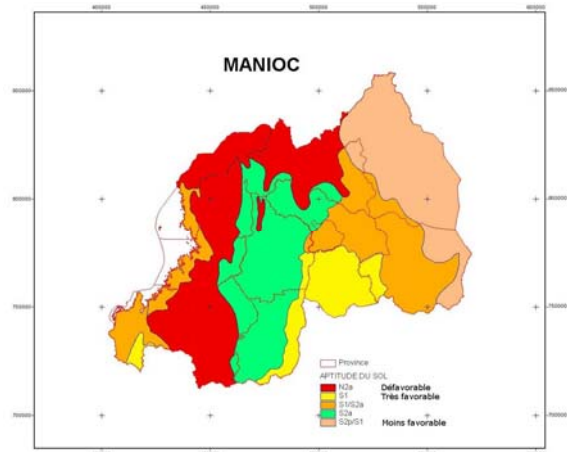
1. AHO BIHINGWA

1.1. Akarere

Mu Rwanda imyumbati ihingwa kuva kuri m 900 kugeza kuri m 1500 mu misozi migufi n'iciriritse. Imyumbati ikunda ikirere kirangwa n'imvura nyinshi n'ubushyuhe ariko yihanganira n'uduce dufite imvura nkeya. Imyumbati ikura neza ahari ubushyuhe buri hagati ya 25°C na 29°C n'imvura iri hagati ya 1100 mm na 1500 mm ku mwaka.

1.2. Ubutaka

Ubutaka burebure bugizwe n'urusenyi rw'ibumba, bworoshye kandi buhitisha amazi neza. Imyumbati ntikunda ubutaka butose cyane cyangwa ubutaka bw'umusenyi. Imyumbati yihanganira ubutaka bwagundutse n'ubudafite imyunyu ya phosphore kandi ubutaka burimo azote nyinshi butuma idashora neza.



1.3. Umurima ihingwamo

- Nyuma yo gutera urangwa n'icyapa cyanditseho : izina ry'imbuto, itariki itereweho, ubuso, ubwoko bw'imbuto zisarurwa, na numero iranga umuhinzi n'umurima.
- **Ugomba kuba uri kuri m 5 uvuye ku yindi mirima** y'imyumbati ariko itarobanuye cyangwa by'ubundi bwoko.

1.4. Ibindi bisabwa

- Ubushyuhe bwo hejuru bukenewe kugira ngo imyumbati ikure neza kandi ishore bugomba kuba hagati ya 25° na 29 °C.
- N'ubwo yihanganira izuba, imyumbati ikenera amazi atari munsi ya 500 mm n'amezi 6 y'imvura ku mwaka. Ikura neza cyane ibonye amazi ari hagati ya 1100 mm na 1500 mm k'umwaka.

2. UKO BISIMBURANA N'IBINDI BIHINGWA

Bitewe n'uko igihingwa cy'imyumbati kinyunyuzwa ubutaka kikabutera kugunduka, byaba byiza kugihinga nyuma y'ibindi bihingwa kigakurikirwa no kuraza. Imyumbati ishobora gusimbura ibigori cyangwa ubunyobwa byashoboka igasimburwa no kuraza. Iyo kuraza bidashoboka bitewe n'ubutaka buke, imyumbati ishobora gusimburwa n'ibigori ariko ubutaka

bugafumbirwa cyane hakoreshejwe ifumbire y'ibikomoka ku bibora ingana na toni 20 ndetse hagakoreshwa n'ifumbire mvaruganda ikenewe ku bigori.

3. IBIRANGA IMBUTO ZIBONEKA MU RWANDA

UBWOKO	Igihe bwerera (amezi)	Umusaruro (T /Ha)	Icyo bukore-shwa	Uko bwihanganira indwara yo kubemba	Uko bwihanganira Intagangurirwa (acarien)
Creolinha	15-18	40-50	Umutsima	Ntibuzihanganira na buhoro	Ntibuzihanganira
Gitamisi (Eala 07)	18-24	40	Umutsima		
Kiryumukwe	9-15	25	Imiribwa	Ntacyo ibutwara	Ntibuzihanganira na buhoro
Karama	15	40	Umutsima		
Gakiza	15	40	Umutsima Imiribwa		
Ndamirabana (TME14)	10-12	40			
Cyizere (192/0057)	15	40-45			
Mbagarumbise (MH 95/0414)	12-15	30-35		Burazihanganira	
Mbakungahaze (95/NA/00063)	12	45			

4. UBURYO IMBUTO ZIHINGWA

4.1. Itera

- Haterwa **imbuto shingiro** z'ingeri z'imyumbati, zifite hagati ya cm 15 na 30. Ingeri igomba kuba ikuze kandi nibura ifite ingingo 3 ikava ku giti kitarwaye ukubemba (mosaique) cyangwa kirabiranya (bacteriose).
- Igihe cyo gutera: Muri Nzeri mu gihe cy'ihinga A no muri Werurwe mu gihe cy'ihinga B, bitewe n'igihe imvura itangiriye kugwa.
- Igipimo cy'imbuto: Haterwa ingeri 10 000 kuri ha ku myumbati ikura cyane ariko iyo hagamijwe imbuto gusa ku myumbati idakura cyane haterwa ingeri 20 000 kuri ha. .
- Gutera ku mirongo itandukanijwe na m 1 kuri m 1 iyo hatewe ingeri 10 000 cyangwa m 1 kuri cm 50 iyo hatewe ingeri 20 000. Iyo ubutaka bwagundutse cyane, haterwa ingeri nyinshi zigera kuri 70 000 kuko buri giti gitanga ingeri nkeya zitarenze 2 cyangwa 3.
- Kubera ingeri zimwe zishobora kudafata ni ngombwa guteganya ingemwe zo gusimbura ku ngeri zigomba guterwa hakongerwaho nibura 10% . Isimbura rirangiye, ingemwe zinyongera zirarandurwa zikajugunywa.
- Ingeri zishobora kurambikwa mu migende zikoroswa itaka, cyangwa zigashingwa zubitswe (kwirinda kuzicurika) $\frac{3}{4}$ bikaba mu butaka naho $\frac{1}{4}$ kikaba hejuru. Ingeri ziterwa zireba mu cyerekezo cy'amajyaruguru kugira ngo izuba rizirasireho mbere na nyuma ya saa sita.

4.2. Ifumbire no gutunganya umurima

- Mu butaka bushaririye, gutera toni 3 z'ishwagara kuri hegitari ku itabira rya kabiri bitewe ikamara imyaka 6.
- Umusaruro ugera kuri toni 30 uboneka hakoreshejwe ifumbire ingana n'ibiro 44 bya N (azote), 37 bya P₂O₅ na 94 bya K₂O. Iyo hari ifumbire y'ubwoko bwa NPK gusa hashobora gukoreshwa ifumbire iri hagati ya kg 300 na 650 kuri hegitari bitewe n'uburumbuke bw'ubutaka. Ifumbire igabanywamo 2, iyambere igaterwa igihe cy'ihinga indi igaterwa igihe amashami y'ibiti atangiye guhura.
- Iyo hatewe ifumbire nyinshi 325 kg ifumbire ishyirwa mu migende ikoroswaho itaka mbere yo gutera naho iyo hatewe ifumbire nkeya ingana na 150 kg, ifumbire ishyirwa mu myobo yo guteramwo igatwikirwa itaka mbere yo gutera.

4.3. Kubagara no kuvanamo izindi mbuto zidakenewe

- Ibagara nyuma y'ukwezi kumwe bamaze gutera ; isukira rya mbere rikorwa bigize cm 60-80 z'uburebure. Nyuma y'isukira hagenda hakurwamo icyatsi kimwe na kimwe kibonetse kuko imyumbati iba imaze gupfuka ubutaka nta bindi byatsi bimera.
- Kuvanamo andi moko y'imbuto** ni ngombwa kuva mw'imera, harandurwa imyumbati y'ubundi bwoko agaragaye.

4.4. Igenzurwa ry'umurima

Igenzurwa rya mbere rikorwa mu mezi atatu ya mbere hagamijwe kureba uko ibihingwa bikenurwa, uko ibihingwa bidakenewe birandurwa, no kureba ikigereranyo cya buri ndwara.

Igenzurwa rya kabiri rikorwa hasigaye ukwezi ngo ingeri zitangwe hagamijwe gusuzuma niba ntandwara zanduzwa n'imbuto ziri mu milima no kureba ko ntayandi moko y'imyumbati yashoboye kwigaragaza nyuma y'igenzurwa rya mbere.

4.5. Kurwanya indwara n'ibikoko byangiza

- Kurandura no kuvana mu murima ibihingwa byose byafashwe n'indwara zituruka ku mbuto, nko kubemba (mosaïque) na kirabiranya (feu bacterien) . Hagomba gusigara imyumbati imeze neza, mizima.
- Kurwanya inda n'ubuhunduguru haterwa umuti wa Rogor (Diméthoate) 40%EC (cyangwa undi muti wica udukoko), litiro 2 kuri hegitari imwe.
- Hashora kurwanywa udukoko tw'ubuhunduguru hakoreshejwe utundi dusimba two mubwoko bw'ivubi bwitwa "Epidinocarsis lopezi".

5. GUSARURA, GUTORANYA NO KUGEMURA INGERI

- Mbere yo gusarura ingeri hasigaye ibyumweru 2, bagabanya amababi y'ibiti kugirango izuba n'umuyaga bishobore kugera mu mulima wose. Ibyo bifasha gukamura ibiti ntibigire ubuhehere bukabije.
- Nyuma ibiti biratemwa hakoreshejwe imihoro ikarishe kandi yasukuwe kugira ngo itanduza idwara nko kubemba cyangwa kirabiranya. Ibyo bita bicibwamo ingeri ariko hakirindwa gusarura amashami yo hejuru adakuze neza.
- Bagenda baca ingeri zifite hagati ya cm 15 kugeza kuri 30 bitewe n'umubare w'ingingo zirimo (ingeri zo hasi ziba ngufi kurusha izo hejuru kuko ingingo zo hasi ziba zezeranye.
- Iyo ingeri zimaze gucibwa zipfunyikwa mu mifungo y'ingeri 20 kugirango bifashe kumenya ingeri zisaruwe n'izitanzwe.
- Nyuma izo ngeri zishyirwa mu mifuka mitoya (iya kg 50) hakajyamo imifungo 20 kugeza kuri 30 bitewe n'uburebure bw'ingeri zaciwe. Imifuka irafungwa ariko hejuru hagasigara ubuhumekero kugira ngo umwuka utambuke neza bigabanye ubushyuhe bwatuma ingeri zuma vuba.
- Uzuza kandi wohereze uru rupapuro rwo **kumenyekanisha umusaruro**.
- Bibabyiza gushyira muri buri mufuka umubare umwe w'ingeri kugira ngo byoroshye kubara mu gihe cy'ipakira.
- Ingeri zitegurwa umulima waramaze gutegurwa kugira ngo bahite batera kuko iyo ingeri zitinze guterwa zuma zigatakaza ubushobozi bwo Kumera.
- Mugihe cyo gutwara ingeri sibyiza gukoresha imodoka zipfutse kuko byongeraga ubushyuhe bigatuma ingeri zuma.
- Imodoka zitwaye ingeri ntizigomba kumara igihe kinini mu nzira kuko bituma ingeri zuma zitaragera aho zigomba kujya. Iminsi ntarengwa yo kuzitwara ntigomba kujya hejuru 5.
- Iyo bibaye ngomwa ko ingeri zibikwa mbere yo guterwa byaba byiza gucukura icyobo zikabikwamo ariko zavuye mubipfunyika zagemuwemo.

6. IBIJYANYE N'UBUKUNGU

Igiciro cy'ibikorwa (<i>kuri hegitari</i>)	Ingano	Igipimo	Igiciro kuri buri gipimo (<i>FRw</i>)	Igiciro cyose hamwe (<i>FRw</i>)
Abakozi	400	Umubyizi	500	200 000
Ifumbire y'ibibora	10 000	Ikiro	10	100 000
Imbuto	10 000	Ingeri	15	150 000
Ifumbire y'imvaruganda: NPK17-17-17	300	Ikiro	300	90 000
Imiti: Dimethoate	5	litiro	6 000	30 000
Igiciro cyose (<i>FRw/hegitari</i>)				570 000
Umusaruro				
Umusaruro ku mbuto (<i>FRw/hegitari</i>)	100 000	Ingeri	10	1 000 000
Umusaruro w'imyumbati	10 000	kg	50	500 000
Umusaruro wose hamwe				1 500 000
Inyungu (<i>FRw/hegitari</i>)				930 000
Igicuruzo (<i>FRw/ingeri</i>)				6

IMYUMBATI : Uko ihingwa

Umunsi

Guhitamo no gutegura umurima: ibanziriza ibigoli cyangwa ubunyobwa / itandukanywa n'indi na m5 / itabira rya mbere

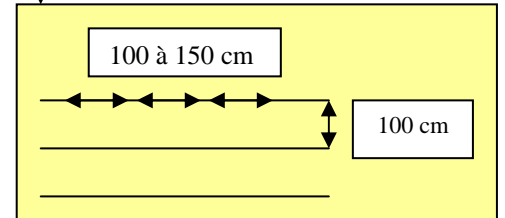
Aho imbuto zigurirwa : Imbuto shingiro z'ingeri z'Imyumbati zigurirwa mu bigo byemewe cyangwa mu bikorera ku giti cyabo bemewe

Creolinha
10/09/07
2 Ha / Certifiée
N° CRE/04/07B
N° imenvekanisha Umuhinzi



1

Itera : itabira rya kabiri (n'iringaniza)+ gutera ifumbire y'imborera Toni 10 kuri Ha. Gutera imbuto ku ntera ya m 1 mu murongo na m1 kugera kuri m1,5 hagati y'umurongo n'undi hakurikijwe ingemwe (ntoya cyangwa ndende). Ingeri zifite cm 15 kugera kuri cm 30 z'uburebure ziterwa zireba mu majyaruguru kugirango izuba riziraseho. Ubwa mbere hanyanyagizwamo ifumbire ya NPK 17-17-17 kg 150 kugera kuri 300 Kg kuri Ha



21

Kumenyekanisha igihingwa bitarenze ibyumweru bitatu kuva igihe cy'itera mu ishami rishinzwe igenzura n'ibyemezo rya RADA (BP 538 Kigali)



30

Kubagara

Gusukira : Isukira rya mbere rikorwa ibihingwa bireshya na cm 60 kugera kuri cm 80

Gukomeza kwita ku gihingwa kuva giterwa kugeza igihe cy'isarura (sarclage, buttage, lutte)

Kurwanya indwara n'ibikoko:

Kurwanya inda n'ubuhunduguru hakoreshejwe Diméthoate 40% EC (2 l/ha)
Hashobora kurwanywa udukoko hakoreshejwe utundi dukoko two mu bwoko bw'ivubi

90

Isura rya mbere ry'isuzuma kugirango byemerwe

Ikindi gice cy'ifumbire mwaruganda kinyanyagizwa mu murima igihe amababi y'ibiti byegeranye atangiye gukoranaho

Isura rya kabiri ry'isuzuma kugirango byemerwe

Amezi 3 mbere y'isarura

Ibyumweru 2 mbere y'isarura

Kugabanya amababi ku bihingwa

Isarura : gutema hakoroshejwe ibikoresho bisukuye

Kwanika no guhunika : Ingeri zifite uburebure kuva kuri cm 15 kugera kuri cm 30 z'uburebure ; zifungwa mu mifungo ari 20 ; zigashyirwa mu mifuka ya kg 50 igafungwa ariko hagasigara ubuhumekero ntizigomba kumara iminsi iri hejuru y'itanu mu nzira. Uzuza kandi woherewe uru rupapuro rwo **kumenyekanisha umusaruro.**

ICYAPA

Umuhinzi :
Ingeri zemewe
Imyumbati / Creolinha
Igihe yerera : amezi 15-18
Umusaruro : 40 à 50 T/ha
Ku misozi migufi n'iciriritse
N° 18/08A/KIN/7/C
Date : 12/12/2007
50 kg

Gukomeza gukuramo izindi mbuto kugeza byeze

B
i
s
h
o
b
o
r
a

g
u
h
i
n
d
u
k
a