	<b>Uburyo bwo gukusanya, gutunganya no gukwirakwiza amakuru kuri filiyeri y'imbutu mu Rwanda</b>	Kode y'innyandiko: 41KR122I131v0
	<b>IGICE CYA 4: UBUMENYI BW'IMIKORERE MU BYA TEKINIKI</b>	Itariki yo kujyanisha inyandiko n'igihe UKUBOZA 2007
<b>IFISHI IRANGA ITUBURA RY'IMBUTO ZIFITE ICYEMEZO : Ibishyimbo bigufi</b>		Innyandiko ikomatanyije

<b>Inkomoko y'innyandiko</b>	Projet AFSR
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<b>Itariki innyandiko yasohokweho</b>	Ukwakira 2007
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<b>Umubare w'amapagi</b>	4
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**IFISHI IRANGA ITUBURA RY'IMBUTO ZIFITE  
ICYEMEZO (Semences certifiées)**



**IBISHYIMBO BIGUFI (Phaseolus vulgaris L.)**



Ibishyimbo bigufi 1312 I



**1. AHO BIHINGWA**

**1.1. Akarere :**

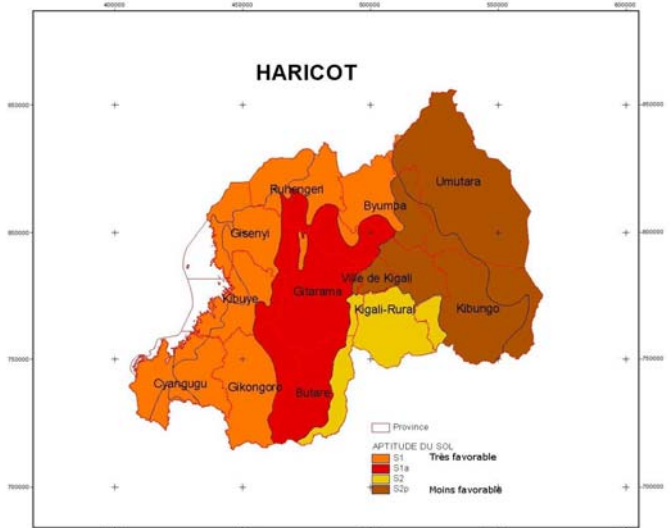
Ibishyimbo bigufi bihingwa mu Rwanda hose ku butumburuke bwa m 2000. Ubutumburuke burenze aho bushobora guhingwa ho amashaza.

**1.2. Ubutaka:**

Ibishyimbo ni igihingwa kigaragaza ubutaka bwiza. Bisaba ubutaka burebure, bworoshye kandi bufite ibitunga ibihingwa byinshi birinda guhinga mu bishanga byuzuye amazi.

**1.3. Umurima bihingwamo**

- Nyuma yo gutera, urangwa n'icyapa cyanditseho : izina ry'imbuto, itariki itereweho, icyiciro cyayo, ubuso bw'umurima, na numero ziranga umuhinzi n'umurima.
- **Intera iwutandukanya n'indi mirima :** m 10 uvuye ku mirima irimo izindi mbuto cyangwa imbuto imwe, ariko itari iyarobanuwe



**2. UKO BISIMBURANA N'IBINDI BIHINGWA**

Umurima uhingwamo ibishyimbo bigufi ugomba kuba udaherukamo ibishyimbo cyangwa ibindi binyamisogwe, nibura mu gihe cy'igihembwe kimwe. Ibishyimbo bishingirirwa bikurikira ibinyabijumba cyangwa ibinyampeke.

**3. IBIRANGA AMOKO ABONEKA MU RWANDA**

UBWOKO	IBIBURANGA			
	Uko babwita mu Rwanda	Akarere bukunda	Igihe byerera	Umusaruro (Toni kuri Hegtari)
RAB 487	Kimaranzara	BA, MA, HA	80 - 112	1,5 – 3
SCAM 80 CM/15	Ingobokarugo	BA, MA	75 - 80	1,5 - 2,5
RWR 1668	Sine	BA, MA	75 -89	1,5 – 2
RWK 10		BA, MA	76	1,5
Mwezimoja		BA, MA	75-80	

UBWOKO	IBIBURANGA			
	Uko babwita mu Rwanda	Akarere bukunda	Igihe byerera	Umusaruro (Toni kuri Hegitari)
1312 I	Kiryugaramye	BA, MA	75-84	1,3
A 321		HA	135	1,5
RWR 719		BA, MA	79	0,9

MA : Imisozi iringaniye ; BA : Imisozi migufi, HA : Imisozi miremire.

#### 4. UBURYO IMBUTO ZIHINGWA

##### 4.1. Itera

- Hakoreshejwe imbuto shingiro zo mumufungo umwe zabanje guterwamo umuti witwa Super Homai (g 5 ku kiro) cyangwa Fernasan D (g 3 ku kiro) cyangwa na none g 2 za Thiram + g 1 za Benlate ku kiro cy'imbuto cyangwa indi miti yica udukoko iboneka mu Rwanda.
- Igihe cyo gutera : Kuva mu kwezi kwa Nzeri kugeza mu kwezi k'Ukwakira hagati mu gihembwe A no mu kwezi kwa Gashyantare kugeza muri Werurwe hagati mu gihembwe B mu bihe by'imvura.
- Igipimo cy'imbuto : kg 60 kugeza kuri kg 80 kuri hegitari
- Umwanya hagati y'ibihingwa : Intete 2 mu mwobo zitandukanijwe na cm 40 hagati y'imirongo na cm 20 ku murongo cyangwa urubuto rumwe kuri cm 10 n'inzira ya cm 60buri m 4.
- Ubujoyakuzimu : cm 3 kugeza kuri cm 5

##### 4.2. Ifumbire no gutunganya umurima

- Iyo igihingwa cyabibanjirije kitabonye ifumbire, kushyiramo toni 15 kugeza kuri 20 z'ifumbire y'imborera kuri hegitari mu itabira rya kabiri.
- Bitewe n'ubutaka bwagundutse, gushyira ibiro 100 by'ifumbire ya DAP kuri hegitari mugihe cy'itera.

##### 4.3. Gukenura no kuvanamo amoko adacyenewe

- Kubagara nyuma y'iminsi 22 uteye, hagakurikiraho isukira, hanyuma mugihe ibihingwa bifite amababi 4 kugira ngo barwanye isazi y'ibishyimbo.
- Kubagara bwa kabiri ibishyimbo bimaze kuzana ururabo iminsi 45 nyuma yo gutera mbere y'uko imisogwe ikomera.
- **Kuvanamo andi moko** : ni ngombwa kugira ngo bavanemo amoko yivanze n'ubwoko bwahinzwe cyane cyane ibihingwa bigaragayeho indwara yo kubemba n'iya bagiteriyoze.

##### 4.4. Igenzurwa ry'umurima

- **Kugenzura umurima** : ibishyimbo bifite ururabo kugira ngo hagenzurwe uko umurima watandukanyijwe n'iyindi no kugira ngo barebe ko bidafite indwara yo kubemba.
- Igenzura rya 2 rikorwa igihe ibishyimbo bimaze kwera kugira ngo bamenye neza ibiranga ubwo bwoko no kumenya niba hari ndwara zishobora gukwirakwizwa n'imbuto.

##### 4.5. Kurwanya indwara n'ibikoko byangiza

- Isazi y'ibishyimbo (Melanagromiza phaseoli) : Gukoresha imbuto zahunguwe nk'uko byasobanuwe haruguru (mu 'Itera'), gusukira kare.
- Bagiteriyoze : Gukoresha imbuto z'indobanure zidashoborwa n'indwara
- Kubemba : Gukoresha imbuto zidashoborwa n'indwara, gutera umuti wica udusimba inshuro 2 hakoreshejwe uwitwa Diméthoate 40%EC (ml 15 muri l 15 z'amazi kuri ari 1) Cyangwa undi muti wica udusimba.

#### 5. GUSARURA, KWANIKA, GUTORANYA NO GUHUNIKA

- Isarura ry'ibishyimbo rikorwa bimaze kwera neza, imisogwe imaze kuba ikigina bitarisatagura kugira ngo bidatakara mu murima. Mu gusarura babikatira kubutaka kuburyo imizi isigara mu butaka, kuko iba ikize kuri Azote.

- Nyuma yo kwanika birahurwa imbuto z'ibishyimbo zikanikwa ku zuba kugeza zumye neza.
- Gutoranya, gupima, kubipfunyika no komekaho udupapuro twanditseho ibi bikurikira : izina ry'imbuto, igihe yerera, umusaruro, aho ihingwa nomero y'umufungo w'imbuto n'ibiro.
- Uzuzura kandi woherere uru rupapuro rwo **kumenyekanisha umusaruro**.
- Kurinda imbuto z'ibishyimbo imungu, bakabihungira bakoresheje umuti witwa Actellic 2% gushyira g 2 ku kiro kimwe cy'imbuto.
- Imifuka igomba kuba itondetse kuburyo ugenzura ashobora kuyigeraho yose.

**6. IGIPIMO NGENDERWAHO CY'UBUZIRANENGE**

**Umufungo w'imbuto z'ibishyimbo bishingirirwa zifite icyemezo ugomba kuba wujuje ibipimo ngenderwaho bikurikira :**

- Ubwimerere bw'ubwoko ntibugomba kuba ku gipimo kiri muni ya 98% ;
- Ubwimerere bw'igihingwa ntibugomba kujya muni ya 98%
- Imbuto z'indobanure zishobora kumera ntizigomba kujya muni ya 85% ;
- Ubuhehere ntibugomba kuba hejuru ya 15% ;
- Imbuto zifite ububore ntizigomba kurenga 2%.

**7. IBIJYANYE N'UBUKUNGU**

Igiciro cy'ibikorwa kuri hegitari	Ingano	Igipimo	Igiciro kuri buri gipimo	Igiciro cyose hamwe
Abakozi	450	Umubyizi	500	225000
Imbuto	70	Ikiro	450	31500
Ifumbire y'ibibora	15000	Ikiro	10	150000
Ifumbire mva ruganda				
DAP	100	Ikiro	345	34500
Imiti				
Diméthoate	3	Litilo	6000	18000
<b>Igiciro cyose (FRW/Ha)</b>				<b>459000</b>
<b>Umusaruro</b>				
Umusaruro ku mbuto (FRw kuri hegitari)	1800	Ikiro	300	<b>540000</b>
Inyungu (FRw kuri hegitari)				<b>81000</b>
Igicuruzo (FRw ku kiro)				<b>255</b>

**8. ICYITONDERWA CYA NYIRUBWITE**

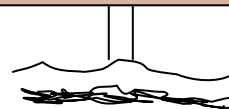
# IBISHYIMBO BIGUFI : Uburyo bihingwa

Umunsi

**Guhitamo no gutegura umurima** : bibanzirizwa n'ibinyabijumba cyangwa ibinyampeke, bitandukanwa n'ibindi na m 10 /Kurima/Amasinde

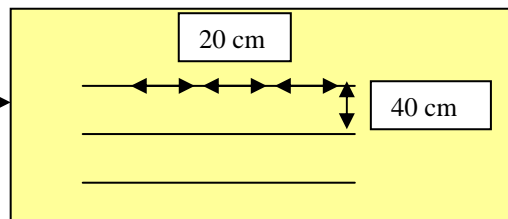
**Aho imbuto zigurirwa** : Imbuto shingiro zihungiyeye zigurirwa mu bigo byemewe cyangwa mu bikorera kugiti cyabo bemewe.

1312 I  
15/09/06  
3 Hegitari / Certifié  
N° HAR/06/07A  
N° imenyekanisha umuhinzi



1

**Itera** : Itabira rya kabiri + gutera ifumbire y'imborera toni 15 kugera kuri 20 kuri hegitari , gutera imbuto ku ntera ya cm 20 ku murongo na cm 50 hagati y'imirongo. Intete 1 mu mwobo ( kg 60 - kg80 kuri hegitari) na kg 100 za DAP kuri hegitari.



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**Kumenyekanisha igihingwa** Bitarenze ibyumweru 3 kuva igihe cy'itera mu ishami rishinzwe igenzura n'ibyemezo rya RADA (BP 538 Kigali)

**Ibagara rya 1** : igihingwa gifite amababi 4 (uburebure nibura bwa cm 8)



**Isura rya 1 ry'isuzuma kugirango byemerwe**

**Igihe cv'iraba**

45

**Ibagara rya 2** : Ibagara n'isukira, kg 200 za NPK 17-17-17 kuri hegitari, gutera inshuro 2 umuti wica ubusimba : Diméthoate 40%EC ml 15 kuri 1 15 z'amazi kuri ari (1,5 kuri hegitari)



60

**Iyera (maturation)**

75-85

**Iyera n'isarura** : Byeze neza imisogwe yabaye ikigina, imbuto zidashobora gupfukurwa n'urutoki, babikatera ku butaka, imizi igasigara mu butaka.

**Isura rya kabiri n'igenzura kugira ngo hatangwe icyemezo**

**Kubyanika** Kubyanika muminsi 4 kugera kuri 5, bigakurikirwa no guhurwa. Uzuza kandi woherewe uru rupapuro rwo **kumenyekanisha umusaruro**.

**Kubihungira no kubihunika** : Kubyanika no kubitera umuti wa Actellic 2% (g ku kiro cy'imbuto). Kuzipfuyika no gushyiraho icyapa kibiranga.

**Gukomeza gukuramo izindi mbuto kugeza byeze**

## ICYAPA

Umuhinzi : .....  
**Imbuto y'ibishyimbo bigufi ifite icyemezo /**  
 Ubwoko 1312 I  
 Igihe yerera : iminsi 78  
 Umusaruro : toni 1-3 kuri hegitari  
 Mu misozi iringaniye n'imiremire  
 N° 05/07A/Rub /07/C  
 Itariki : .....  
 Kg 25