

# Niufala fashin blong mekem karen

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## Fasin blong helpem karen

Buk ia i gat ol defren teknik we i helpem yu mekem karen blong yu strong.



*Mulch hemi impoten blong holdem wota long kroan*

Hemi gat fo part long hem:

- wanem ol plant oli nidim blong gro gud
- hoa blong mekem graon i rich
- hoa blong sevem mo planem mo kakae
- hoa blong blokim sik mo pest

Each wan hemi impoten blong helpem yu planem niu kind kakae olsem tomato, karot, capsicum mo tu, ol teknik i helpum kastom crop olsem aelan kabis, manaic, kumala mo yam.



*I impoten blong wotarem karen blong yu blong mekem ol plant oli bigwan mo tu blong blokim sik blong plant mo pest.*



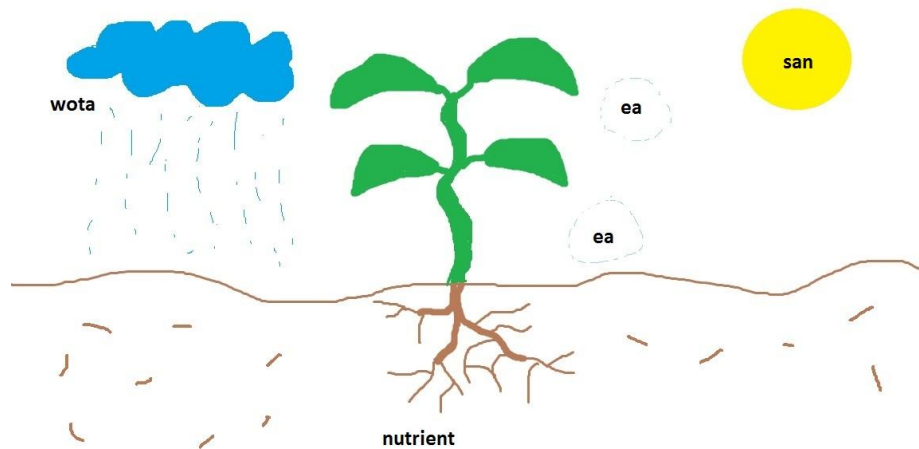
*Savem ol sid blong planem kakae ol taem*



*Ol faol oli save helpem yu managem ol pest mo mekem graon i rich*

## Wanem ol plant oli nidim blong gro gud

Ol plant oli nidim 4 samting blong gro gud:



1. Ea – olsem wan man, ol plant oli nidim ea blong gro.

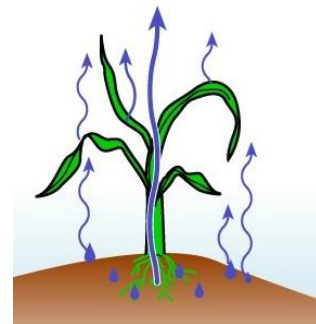
Taem we ol plant oli klosap tumas, oli save kasam sik.

2. Wota – ol plant oli nidim fres wota.

Taem we i hot, ol plant lego wota long lif mo pulum wota long graon. Yu mus lukaot gud we smol plant oli gat fulap wota blong gru gud.

Taem we sam plant oli no gat enuf wota, oli save kasam sik or sam pest i save kam blong kakae long hem.

Yu save usum mulch blong holdem wota long graon.



*Wota i kamaot long lif, plant i pulum wota long graon*

3. San – ol plant oli nidim sun.

Taem we ol plant oli smol, sipos oli gat tumas san, bae oli lego tumas wota mo bae oli ded. Oli nidim sam sed tu. Mulch tu i gud blong protektem ol plant long sun. Mulch i mekem graon i kolkol.

4. Kakae – lo Inglis hemi 'nutrient'. Olsem wan man, ol plant oli nidim gudfala kakae blong gru gud.

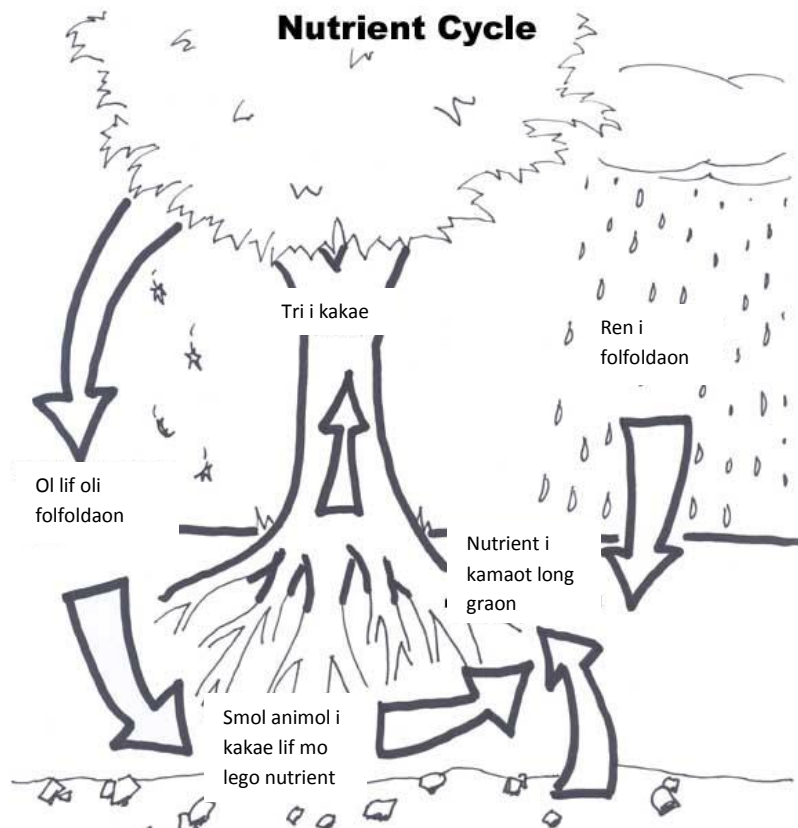
Long nekis part, bae yumi luk mo long nutrient mo hao nao yu save mekem gudfala kakae blong ol plant blong yu.

## Mekem graon i rich

Numbawan samting ol plant i nidim hemi healti mo rich graon.

## Nutrient cycle

Bae yumi luk long bus, blong luk najural wei blong mekem graon i rich.



Wan tri i mekem fulap lif. Long bus no gat wan man blong brumum bae oli mus go sam ples from yumi no gat wan maonten long lif. Oli go long we? Ol smol smol animol long graon oli kakae olgeta mo mekem kakae blong graon. Process ia hemi 'decomposition'. Ol lif i go bak long soil olsem nutrients we ol tri mo nada plant i save usum. Decompostion i nidim:

- Eni samting we i gat laef bifo: olsem ol lif, sitsit blong animol, ded animol, stik,
- Wota
- Ae,
- Ol smol smol animol long graon (fulap i smolmol tumas mo yu no save luk olgeta)

Afta ol smolmol animol i tanem lif bak long nutrient, ol rus blong tri oli kakae long hem mo mekem mo lif, flaoa mo frut. Afta, ol lif i folfoldaon mo decomposition i start bakagen. Yumi callim samting ia 'nutrient cycle' – hemi wei blong mekem graon i rich long bus.

## **Kastom wei blong mekem karen**

Ol fama oli save se bus i wan gudfala ples blong mekem karen. Sipos oli no usum toktok olsem 'nutrient cycle' bae oli save bus i gud ples blong mekem gudfala karen.

Ol fama oli go long bus, katem mo bonem wan ples blong mekem karen.

Oli save usum karen kasem 3 o 4 yia mo afta, taem we graon i nomo rich, oli mus mekem wan narafala karan long sam narafala ples.



*Kastom wei blong mekem karen, bonem bus*

Be taem we oli bonem bus oli kilim ded ol smolsmol animol long graon. Mo tu, taem we ol graon i klin, oli no gat lif blong kakae. I mimin se oli no mekem moa kakae blong graon. Graon i save holdem smol kakae bae ol plant we fama i planem oli usum quiktaem.

## **Hao nao bae climate jenis afectim karen?**

Noaia ol fama i luk jenis long weta, olsem bigfala drae (el nino) mo bigfala wet (la nina).

Long el nino san i hot tumas mo pulum fulap wota long graon. I hard blong planem gudfala kakae from wota i smol. Buk ia i gat teknik olsem mulch we i save holdem mo wota long graon, i minim se yu stil save planem kakae long drae taem.

Long la nina, ol fama luk fulap ren. Ol ren save wasemaot karen o mekem landslaed. Sipos yu usum teknik long buk ia blong bildim soil fertility long karen blong yu, yu no nidim katem mo bonem bus we i mekem janis blong landslaed.

## **Teknik blong mekem graon i rich long karen blong yu**

Yumi save usum teknik blong bus long karen blong yumi blong mekem graon i rich mo healti.

Wan healti graon bae i mekem ol kakae blong yu oli healti. Mo tu healti graon bae i helpem blokim ol rubis bebet olsem pest.

Sam teknik we yu save usem includim:

- mulching
- usum compost
- mixed cropping
- crop rotation
- alley cropping.

## 1. Mulching

Mulch hemi ol lif mo smol wud we i stap antop long graon – olsem long bus. Yu save usum lif, olsem lif blong frut tri o gliricidia o gras, husk blong coconas long mulch. O yu save usum 'living mulch' – wan plant we i koveremap graon olsem bin, kumala mo pumkin. Yu save usum vetiver grass mo lemongrass tu – planem long outside long karen mo katem mo usum olsem mulch.



*Living mulch olsem kumala*



*Mulch wetem lif blong kokonas mo sawdust*

Taem yu usem mulch, yu mekem graon i strong mo i helpem blokem sik blong plant.

Usem mulch long karen bae hemi helpem:

- Ol plant oli grow strong mo healti from mulch hemi mekem kakae blong plant. Mulch i providim mo kakae blong plant bitim taem yu brasem bush mo bonem.
- Keepim graon i wet wet.
- Preventem sun blong karemaot ol gudfala nutrient blong graon.
- Blokim weed we oli stilim wota mo kakae blong plant blong yu.

I mo isi blong putum mulch firstaem mo afta planem ol plant.

Yu mus mekem mulch tik – olsem 5cm dip. Yu no mus luk graon.



*Graon nomo long left saed i drae. Lif mulch long right saed i mekem graon i rich mo wet wet, mo tu i blokim ol wid.*



## 2. Compost

Compost hemi wan teknik yu save improvim soil fertility long karen blong yu. Hemi wan naturol wei we eni samting we i bin alive oli turnem bakagen long graon.

### Wanem nao me save compost?

Yes	No
<p>Ol grin samting</p> <ul style="list-style-type: none"> <li>• Skin mo lif blong kakae</li> <li>• Stumpa mo lif blong ol helti plant</li> <li>• Sit sit blong animol</li> <li>• Gras</li> <li>• Ol wid o rubis gras (bifor i gat sid)</li> <li>• Bon blong animol mo fis (be oli nidim fulap taem, oli mo gud blong hole blong wan niu tri)</li> </ul> <p>Ol brown samting</p> <ul style="list-style-type: none"> <li>• Lif</li> <li>• Pepa mo carton (mekem smol)</li> <li>• Husk blong coconas</li> <li>• Asis blong faea</li> <li>• Sel blong pinut</li> </ul>	<p>Kakae we yu kukum (mo gud blong faol o pig)</p> <p>Bigfala wud</p> <p>Wid we oli gat sid</p> <p>Plant we oli gat sick blong plant (yu save spredem sik blong nada plant)</p> <p>Toti – plastik, botel, tin</p>

Yu nidim wan mix long grin witim brown blong mekem compost.

### Col compost

Yu save mekem 'col compost' we i compost slow be i no nidim tumas work blong yu.

Mekem wan hol klosap long kijin mo karen blong yu we i isi blong adim ol samting blong kijin.

Taem yu putum sam 'grin' samting insaed i gud blong putum sam brown, olsem blong kavremap mo blokim smol flae.

Yu mus kipim hol i wet wet lelebit from compost i nidim smol wota. Be sipos yu gat tumas wota bae i stink – yu mus putum mo brown bakagan.



Taem hol i fulap, livim blong 2-3 manis. Taem yu no luk eni kakae o lif, i redi blong usum long karen blong yu.



### Hot compost

Yu save mekem compost qwiktaem sipos yu usum 'hot compost'. Yu must mekem wan bigfala hip wetem laya blong grin, afta laya blong brown kasam hemi 1 mitre hae mo 1 mitre big. Blong mekem compost qwiktaem, yum us tantanem evri 4 dei.

Mekem se insaed blong hip i kam aotsaed mo aotsaed i go insaed.

Afta 3 wik, bae yu luk compost we i redi!

## Hao blong usum compost

### 1. Usum wetem smol plant

Mixim 1 part compost wetem 2 part graon blong mekem helti graon blong planem smol plant.



### 2. Dig long karen

Sipos yu gat fulap compost dig long ful karen.

Be sipos yu gat smol compost digim long hol we bae yu planem plant nomo.

### 3. Putum klosap long bigfala plant

Bigfala plant i nidim kakae tu. Yu save putum laya long compost klosap long bigfala plant antap long graon.

Wota bae i karem ol nutrient i go long root blong plant.

From yumi gat hot sun long Vanuatu, putum compost antop long graon mo afta putum mulch.



### 4. Compost tea

Sipos yu gat smol compost be bigfala karen – usum compost tea.

Putum compost we i redi long wan sack insaed wan baket wetem wota. Kavremap blong blokim moskito.

Movem sak insaed wota 3 taem evri dei mo afta wan wik tea i redi!

Mixim tea witim bigfala wota – 1 part tea wetem 4 part wota. Sipos yu usum stret i save bonem lif blong plant.



Sipos yu gat sitsit blong buluk o pig o sam narafala animol, yu save usum semak teknik blong mekem kakae long karen.

## 5. Mixed cropping

Mixed cropping hemi wan teknik we yu planem ol difren plant togeta. Sam difren plant oli helpem olget grow gud – for example pinut hemi wan legume mo helpem graon i kam rich; taem yu planem pinut wetem round cabbage, pinut hemi helpem cabbage blong grow gud.

Bin mo gliricidia oli sam narafala legume we yu save putum long karen blong yu.

Teknik ia hemi reducim janis blong spreadem ol sik blong plant from oli no stap tugeta. Mo tu, hemi blokem pest we oli likim kakae semak kind long plant.



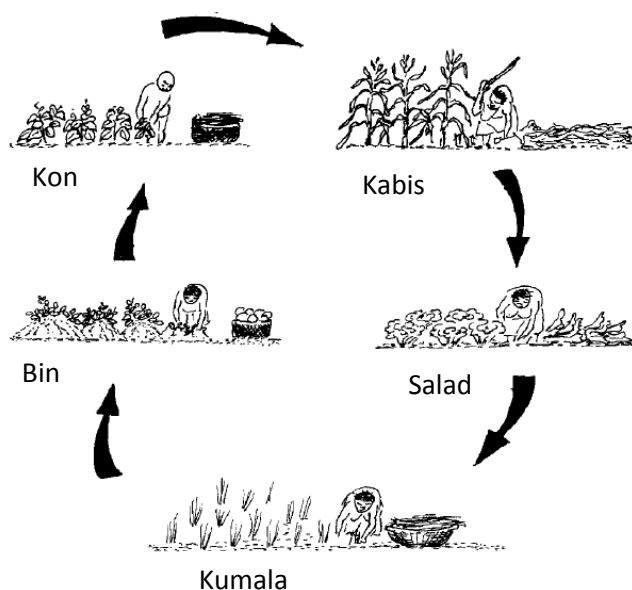
*Farmer bin planem karot tugeta wetem salad*

## 6. Crop rotation

Planem ol difren plant long semak ples long difren taem hemi wan impoten cycle blong mekem ol plant oli strong. Sam plant oli mekem kakae blong nexis plant – olsem bin.

Yumi gat tri risen blong usem wan cycle long plant long karen (crop rotation):

- Blokem pest
- No usem ol kakae long graon
- Blokem sik blong plant

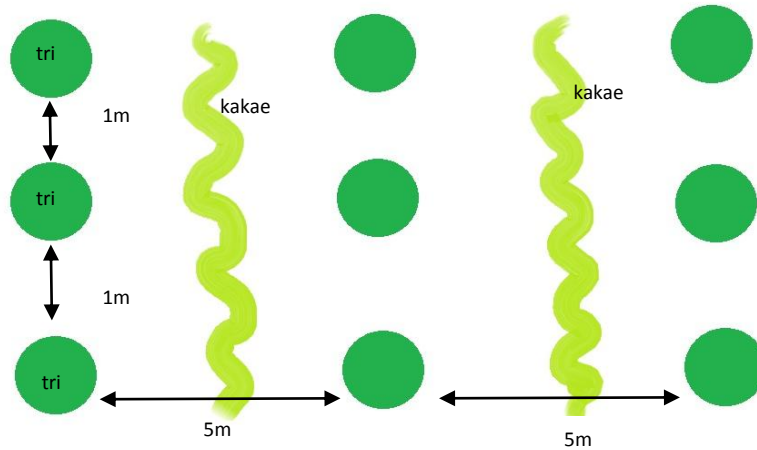


*Planem ol difren plant olsem wan cycle*

## 7. Alley cropping

Alley cropping hemi wan narafala teknik blong mekem graon i rich.

Blong mekem, yu planen gliricidia tri long wan line, afta some kakae, afta narafala line long gliricidia.



*Mekem row we 1 gat 1m bitwin mo 5m bitwin evri row. Planem kakaē long medel.*

Gliricidia i wan spesel tri. Olsem narafala legume olsem bin mo pinut, gliricidia save pulum nitrogen long ae mo putum long graon olsem kakaē blong plant. Mo tu, from gliricidia i wan tri wetem long rut, i save pulum nutrient ap long dip graon we ol plant wetem short rut save kakaē.

Tri bae i mekem sed blong smol plant, mo taem we i mekem tumas sed, katem lif mo branch blong mekem mulch. Katem smol mo putum klosap long ol narafala plant.

Yu save katem gliricidia evri 6-12 manis.

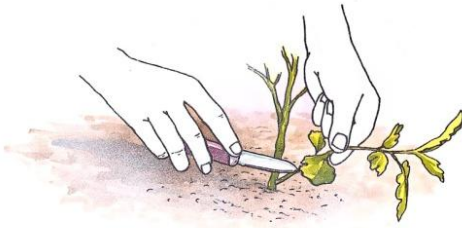
Blong mekem gudfala kakaē long ol plant, yu mas katem gliricidia mo usum olsem mulch.



*Alley cropping gliricidia wetem korn mo pinut*

## Hoa blong sevem mo planem moa kakae

Blong karem kakae ol taem, i impoten se yu save hoa blong planem mo kakae. Yumi gat 2 men wei blong karem mo kakae:



katem mo planem part blong plant



sid

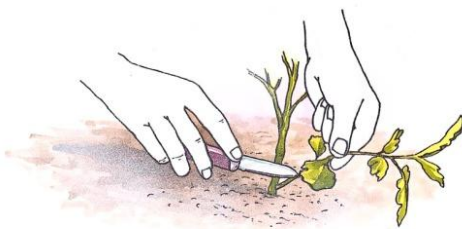
Long Vanuatu, fulap man mo woman oli save hoa blong katem mo planem part blong plant. Long buk ia i gat smol section long hem. I gat mo long hoa blong planem sid mo sevem mo stoarem sid.

### Importen samting:

1. Wetem eni teknik yu usum blong mekem mo plant, i fulap impoten yu mekem sua everi samting i klin fastaem. I minim se everi tul olsem busnaef o spade i klin, evri ples olsem pot o tray i klin. Yu save usum hot wota long pot, tray mo tu long smol graon long neseri.
2. Sipos yu usum tul olsem busnaef wetem plant we i gat sik, klinim gud afta - yu save putum blade long flem qwiktaem (be lukaot gud long han blong yu). Sipos yu no klinim gud ol tul, yu save spedim sik blong plant. Eni plant we i gat sik, yu mas bonen.
3. Yu mus usum helti plant mo sid o sidling nomo. Sipos yu planem sam sid long neseri mo i gro kasam wan sidling be i no helti - sakem, no planem long karem from yu save spredem sik blong hem long karen blong yu.

### 1. Katem mo planem part blong plant

Yu save usum 'katem mo planem' teknik long fulap plant olsem, kumala, tomato mo frut tri.



- Mekem sua yu usum helti part blong plant
- Usum naef we i sarp mo mekem stret gut

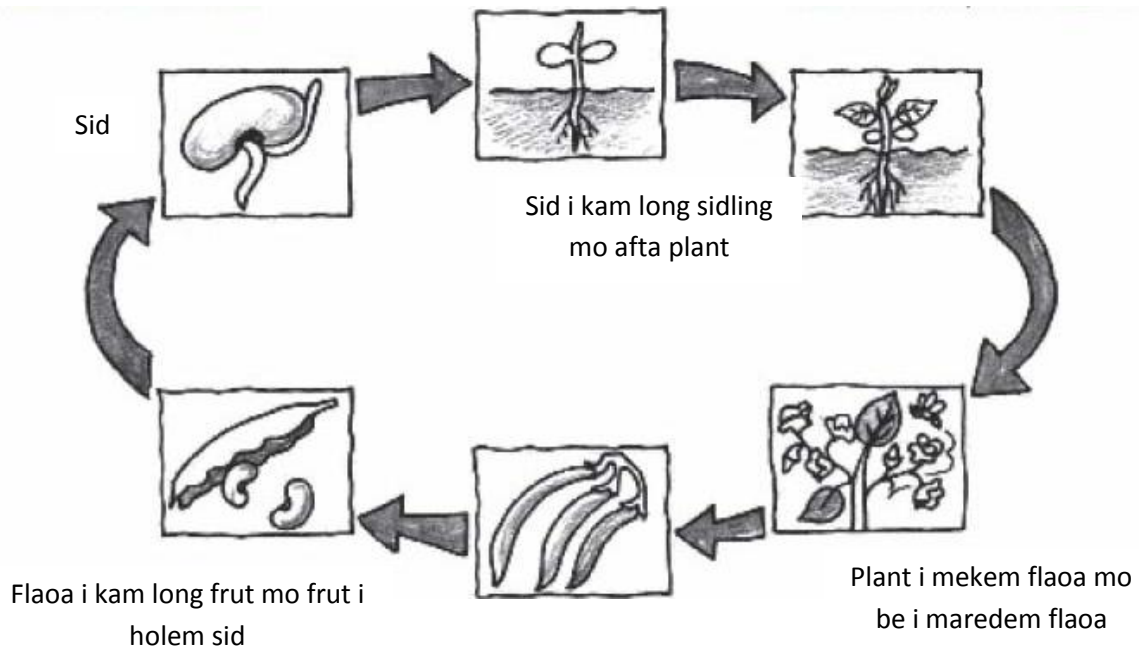
- Mixim kakae blong graon olsem compost wetem graon we bae yu planem blong mekem gudfala start long plant



- Wotarem plant gud

## 2. Planem sid

Fulap plant, speseli legume, oli esi blong planem sid.



*Laef blong plant*

### Graon blong sid

Ol sid i save gro mo gud long wan spesiol mix long graon, san mo kokonas – 1 part blong evri wan:

- graon - blong mekem smol kakae long sid
- sand - blong mekem sua i no holdem tumas wota (wasem sanbij)
- kokonas - blong holdem wota (Usum oldfala husk blong kokonas we i rot smol. Rasrasem blong mekem smol – usum manioc grata o tin fis tin we yu mekem fulap hol long hem)

Taem yu mekem graon blong sid yu mas putum hot wota antap blong kilim eni sik blong plant long graon.

### Blong planem



Sipos yu usum wan tray, filimap be levim smol space long top.

Sipos yu planem long graon, makem smol top part blong graon sofsof.

NO pusem graon bigwan from ol sid oli gat smol smol rut mo i no strong tumas, sipos graon i hard, i hard blong grow gud.

Putum sid 2 taem mo dep bitim size blong hem.

No putum sid klasap - sipos oli no gat gud ea, oli save kasam sik ('damping off').



Mekem sua sid mo sidling i gat wota ol taem - i gud blong mekem nuseri klosap long haus blong yu we yu save lukaot gud long hem.



Sid mo sidling oli nedim smol spray long wota, yu save usum spraya o wan plastik botel wetem smol hol.

### 'Prikim aot' sidling

Taem wan sid i kam aot long graon, i wan sidling nao.



Taem sidling mekem fesfala lif blong hem, yumi kalim 'cotyledon'.

Hemi no wan tru lif, nexis lif blong sidling hemi 'tru lif'.

Cotyledon

Tru lif

Taem yu luk 2 tru lif, yu save 'prikim aot' sidling - i minim se yu movem we i gat mo rum blong gru bifo yu putum long graon.



I impoten yu no spolem rut mo stem blong hem, holem wan smol lif mo usum smol stik blong pulumaot sidling.

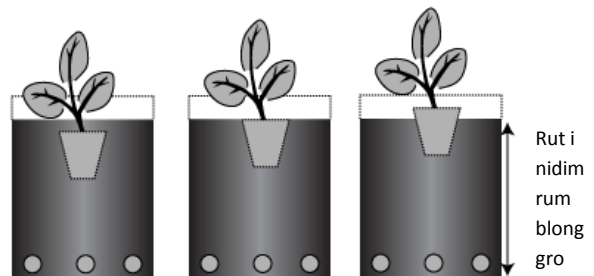


*Prikim aot sidling mo putum wetem gud space long nexis pot – plant i mus stap mo big bifo yu putum long graon*

Dip tumas

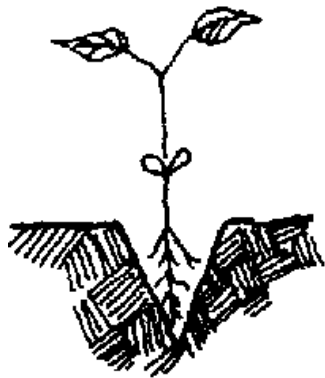
Stret fasin

Salo tumas

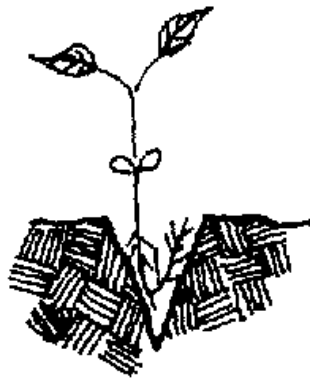


*Planem olsem, rut i go long graon mo cotyledon mo tru lif i stap antap*

Sam sidling i gat longfala rut, sipos i long tumas usum naef blong cutum - sipos yu no katum mo yu skwashem long wan pot i no save gro gud.



Stret fasin



No stret fasin

Mekem hol long pot we i dip olsem rut, holem sidling long lif mo putum graon longsaed long rut.

### Putum long karen

Taem sidling i gat 4 tru lif, i redi blong go long graon noa.



4 Tru lif

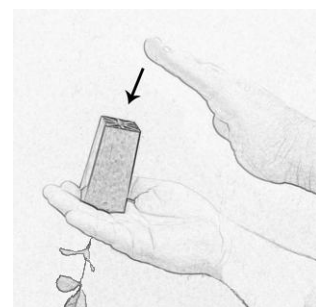
Cotyledon



Wotarem sidling fastaem. I mekem graon i sofsof mo mo esi blong kamaot long pot.

Preparem graon wetem kakaie blong graon olsem compost - 1 part compost wetem 2 part graon. Mekem smol hol blong sidling. Mekem hol lelebet mo big bitim sidling - taem yu putum sidling insaed rut i no tajem graon.

Kapsaetem pot mo taptapem sof long hem. Plant i sud kamaot esi, be sipos no, no pulum bigwan, smol nomo.



Stem i mo strong noaia, holem plant long stem. Holem sidling level long graon mo pusum graon roanem. No mekem graon i hard tumas from rut i no strong yet.

Wotarem gud. Wota i mo gud bitim hand blong mekem graon i roanem ol rut gudwan.

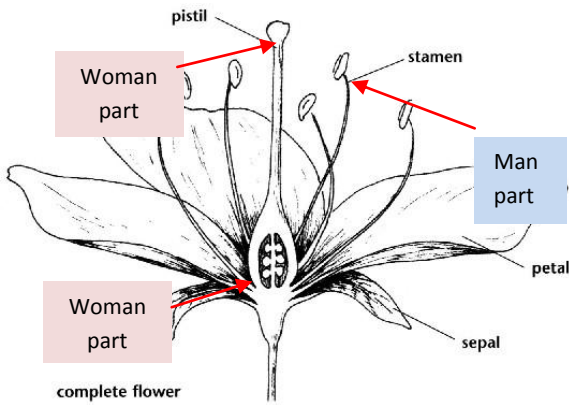




### 3. Polination

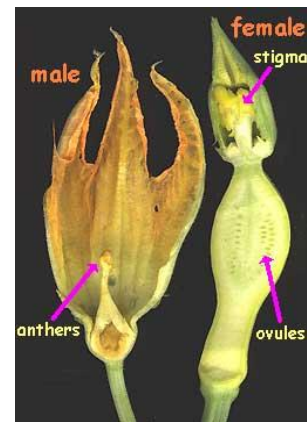
Blong mekem sid, fastaem plant i nidim 'polination' o 'maredem'.

I gat 3 kaen flaoa:



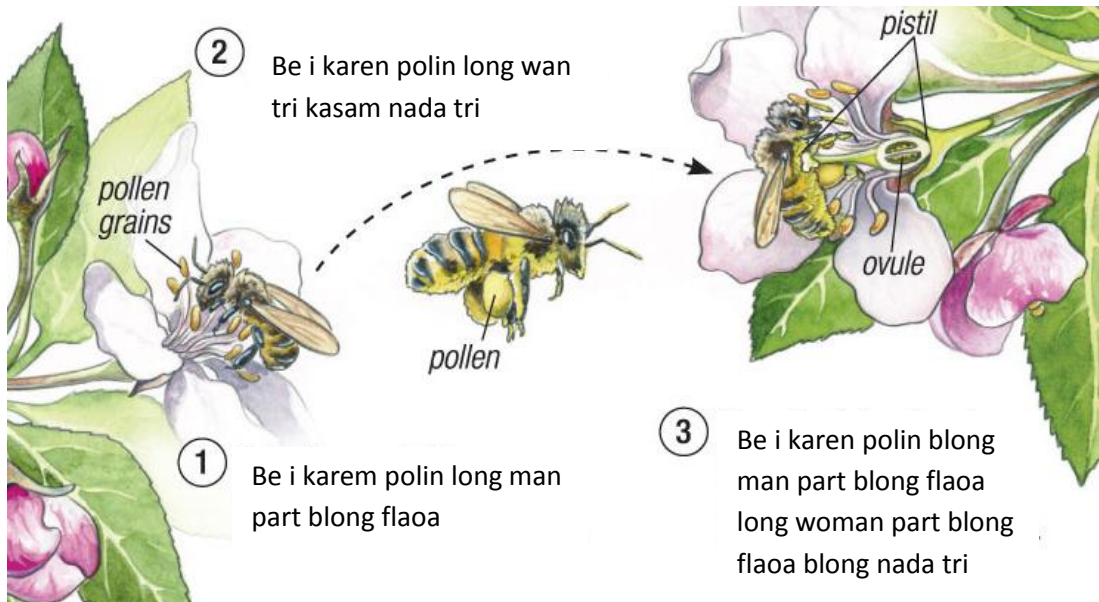
1. Wan we i gat man mo woman part long semak flaoa. Tomato, bin, waetboon, pima, capsikam oli sam eksampol.

*Polin long stamen blong man part i mas mit pistil blong woman part. Be o win i save movem polin.*



2. Mo tu wan kaen we i gat man flaoa mo woman flaoa we i stap long semak plant. Kukamba, pumkin, wotamelon, kon oli sam eksampol we yu save luk 2 difren kaen flaoa long wan plant. Blong maredem, oli nidim bebet olsem be o win. Mo tu, yu save usum hand blong yu blong putum polin blong man flaoa i go insaed long woman flaoa.

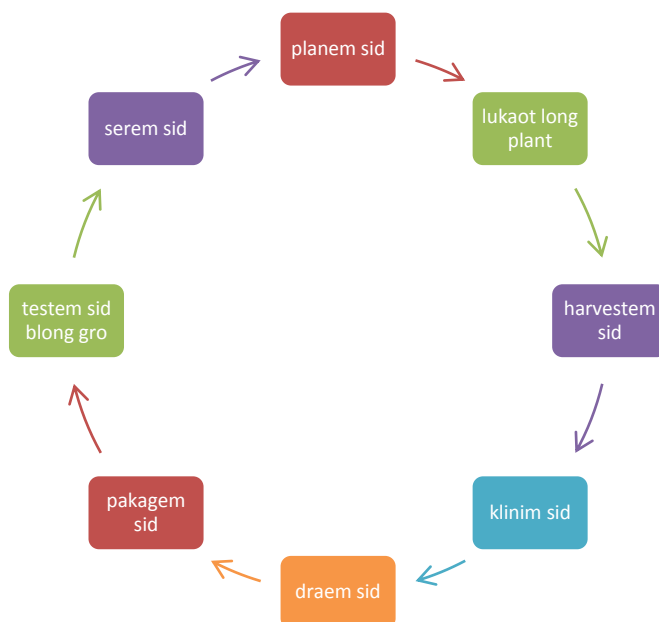
3. Sam frut tri oli nidim mo bitim wan tri blong mared. Oli nidim man flaoa long wan tri mo woman flaoa long nada tri. Popo i wan eksampol we i nidim mo bitim wan popo tri blong mekem kakae mo sid.



Sam bebet i fulap gud long maredem ol flaoa. Blong enkarejem bebet long karen blong yu i gud blong planem fulap flaoa long karen.

## 4. Savem sid

I gat 8 part blong sevem ol sid:



Yumi bin kavaremap ‘planem sid’ finis. Yu save ‘lukaot long plant’ taem yu usum ol teknik blong mekem graon i rich mo tu teknik blong managem pest mo sik blong plant. Noa ia yumi luk long ol nada part.

### Harvestem sid

#### Hamas sid?

Festfala samting yu mas mekem i tink abaot hamas man i wantem sid. Bae yu nidim sevem mo bitim numba ia from no ol sid yu save serem, yu usum sam blong testem sid.

#### Jusum plant blong sevem sid

Blong sevem sid jusum plant we i:

- fulap helti – no gat sik o pest
- mekem bigfala frut

Putum smol calico long plant we yu wantem sevem sid blong yu no kakae long hem!

Long evri plant lukaot long numbawan frut blong hem blong sevem sid.

Sevem sid long fulap plant – no jus wan from i mekem nekis plant mo strong.

#### Taem blong harvestem sid

Numbawan taem blong harvestem sid blong save i medel morning o medel aftanun long wan dei we i gat sun tumas.



*Putum calico blong showem plant we bae yu harvestem sid long hem.*

Harvestem plant long end blong sison blong hem. I gat 2 kaen sid:

### Drae sid

Sid we i masstap fulap drae taem yu harvestem. Kaen ia i includem bin, kapsicum, karot, letus, salad, pima, mo fulap flaoa. Yu mus livim long plant mo taem bitim frut we yu kakae kasam taem skin i drae. Wetem smol sid yu save putum smol basket long hem mo brakem stem blong plant insaed from yu no wantem lus ol smol sid.



*Bin i tanem braon mo skin blong hem i olsem pepa*



*I gud blong livim pima mo kapsicum kasam taem i drae long plant*



*Drae sid blong karot, putum plastik antap long sid blong havestem*

### Wet sid

Sam sid i gat smol basket kavarem olgeta – yumi kalim ‘wet sid’. Tomato, eggplant, kukumba oli gat wet sid we yu mus ‘ferment’ olgeta blong removem basket blong olgeta.



*Kukumba i redi taem i tanem yelo o braon, skin i hard mo samtaem i openem. Taem yu killim, i mekem saon olsem i empti insaed.*



*Pikim tomato taem i fulap redi. I gud blong katem mo usum medel part blong tomoto we gat fulap bigfala sid. Tomato sid i gat wet basket we yu fermentem blong karem sid.*

### Klinim sid



*‘Winowing’ sid*

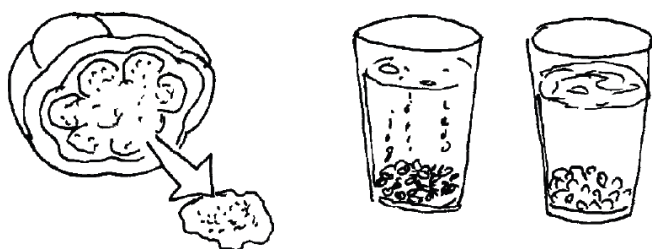
Blong klinim drae sid (oslem bin, letus, kon) yu save openem pod o husk mo karem sid. O sipos i smol sid, krushem sofsof, afta usum wan sieve o ‘winow’ olgeta.

Blong mekem ‘winow’ yu usum smol ae blong karemaot husk. Putum long wan smol dis, mo tosem sofsof mo blow sofsof. Bae yu luk ol husk i kamaot mo sid i stap long dis.

Wetem wet sid, wasem sid long wan siv kasem sid i kamaot long basket blong hem.



Karemaot sid long frut, afta wasem long wan siv kasem sid i kamaot long basket blong hem.



Sid blong tomato i nidim 'fermenting' blong harvestem sid mo tu i helpem doanem sik blong plant. Kutum tomato mo putum sid blong hem long wan kap. Livim long wota kasam sid i kamaot long basket – basket bae i go antap (mo tu bad sid), mo gudfala sid bae i kam long botem long kap.

### Baket system blong savem sid



Baket 1: blong draem sid

Baket 2: blong testem sid

Baket 3: blong sid i stap testem sid blong gro

Baket 4: blong planem long karen

Baket 5: blong pakagem sid

Baket 6: blong sarem sid

**Evri baket i gat asis  
blong fae we i  
kolkol – blong  
mekem ae insaed  
baket i drae.  
Fulumap baket  
blong mekem smol  
ples blong sid long  
evri baket.**

### Draem sid

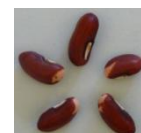
Noaia yu mas draem sid.

NOTE: Sid we i bin wetwet, i gud blong putum long sed blong drae fastaem – from sun i draem qwik tumas mo spolem sid.

1. Putum sid long pepa o kaliko
2. Long pepa raetem nem blong sid mo det we yu bin harvestem
3. Putum long smol mat long sun we i no gat win. Tantanem sid blong drae gud ol saed.
4. Long let aftanun, foldem pepa o kaliko wetem sid insaed mo putum long Baket 1: blong drae sid.
5. Evri morning yu mas putum sid long sun bakegen kasam taem sid i drae gud (2 dei – kasam 3 wik – i depen long sid).

## Hoa blong save sipos sid i drae

*Bigfala sid* – osem bin mo kon, oli nidim 1-2 wik long sun. Blong testem: putum long tut blong yu mo kakae hem. Sipos i livim mark blong tut blong yu, i no redi. Be sipos i harem hard mo kam long 2 part, i redi



*Medel sid* – osem pampkin mo pima, oli nidim 1 wik long sun. Blong testem: sipos i hard mo snap taem yu bendem, i redi.



*Smol sid* – osem egplant, basil, waetboon, oli nidim 2-3 dei long sun.



## Movem long baket 2: blong testem sid

1. Blong kipim ol sid stret – work wetem wan kaen long wan taem
2. Testem smol numba long sid blong mekem sua evri wan i drae
3. Karemaot eni sid we i smol tumas o i bin spolem
4. Putum ol gudfala sid long wan plastik – wan kaen sid long wan plastik
5. Raet long plastik nem blong sid, variety blong sid mo det we yu bin harvestem
6. Skojem tap blong plastik
7. Putum long Baket 2: blong testem sid



## Testim sid blong gru

I impoten blong testem sid blong mekem sua sid we yu sarew bae i gro.

Yu nidim raet daon ol test risal long – luk long end blong buk ia long pepa we yu save raet daon risal.

### 1. Hao blong jusum sid blong test

Jusum long baket 2, yu stil nidim fulap sid blong nexis stage. Sipos sid i no bigwan, yu save planem long karen blong mekem mo (baket 4).

Sipos sid i bin stap long taem (1-2 yea) yu mus testem

### 2. Kaontem sid

Mixim ol sid long plastik fastaem blong mekem wan gud mix long evri sid we i stap insaed plastik.

Kaontemaout ol sid:

- Long bigfala sid osem bin mo kon 12-20 sid (testem long bol)
- Long medel mo smol sid osem kapsicum mo waetboon 30-60 sid (testem long pepa)



### 3. Raetem long test record (usum pepa long end blong buk ia)

- Date we test i start
- Plant (mo variety blong plant sipos yu save)
- Numba long sid

#### 4. Mekem labol

- Usum semak infomason we i stap long pepa
- Putum labol wetem ol sid longsaed blong bol o pepa

8/9/2014

Smol tomato

30 sid

#### 5. Putum ol nada sid long baket 3: blong sid i stap testem sid blong gro

- Skojem tap blong plastik bakagen
- Long plastik raetem date we test i start



#### 6. Startem test blong sid

Long sid we i gat strong skin olsem bin, yu save putum long hot wota fasteam blong mekem gro qwiktaem.

Yu save testem ol sid wetem 1 long 3fala wei:

- Long neseri
- Long bol
- Long pepa

**Wetem evri teknik blong testem i impoten yu lukoat long ol sid gud – no letem draeaot!**

*Long neseri*

Yu save testem eni sid long neseri.

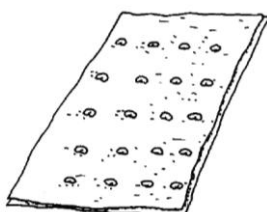
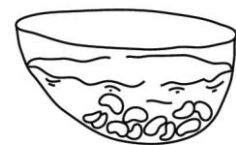
I gud blong usum rasras husk blong kokonas nomo from i no gat eni sid blong wid we i save stap insaed. O yu save mixem husk blong kokonas wetem graon.



*Long bol*

Gud teknik blong bigfala sid olsem bin mo kon. Yu save usum sel blong kokonas olsem wan bol.

1. Putum bin wetem hot wota mo livim i stap long naet
2. Karemaot mo putum long pepa tawel
3. Foldem pepa tawel mo putum smol wota nomo kasam pepa i wetwet smol
4. Putum pepa tawel long bol bakegan mo putum labol blong hem
5. Lukaot long pepa 2 taem evri day blong mekem sua pepa i wetwet smol ol taem. Wetwet i impoten tumas! Be no putum fulap wota long bol, jus mekem pepa i wetwet nomo
6. Raetdaon hamas sid i gro long pepa

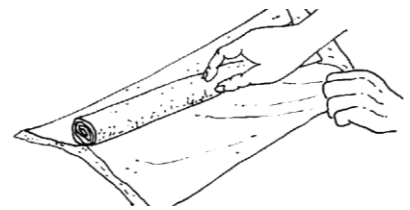
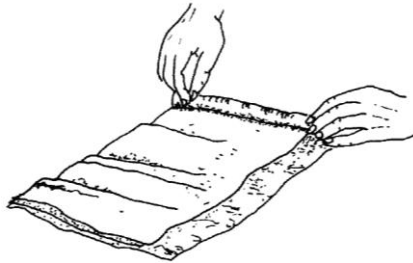
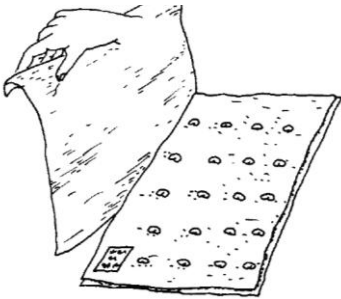


## Long pepa

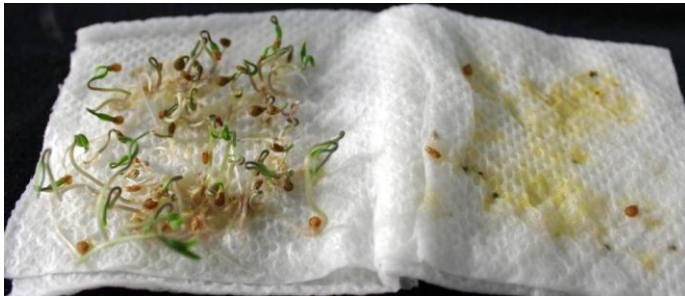
Yu save usum pepa o kaliko.

**Lukaot:** Test blong pepa i hard lelebet from pepa i gat bigfala janis blong draeaut o sipos i wetwet tumas, ol sid oli save rot.

1. Putum sid long pepa o kaliko
2. Foldem 3 taem
3. Foldem end blong hem
4. Usum spraya blong putum smol wota long hem kasam taem pepa o kaliko i wetwet smol
5. Putum pepa or kaliko long wan wan plastik we i gat hol long hem. Mo putum long wan saef ples we i no gat sun o win. Putum labol wetem hem
6. Unfoldem mo jekim sid 2 taem evri dei, mekem sua i wetwet smol ol taem
7. Raetdaon hamas sid i gru



## Risal



*Ol sid we oli bin gro long pepa*

*Ol sid we oli bin gro long nurseri*



*Sid blong pamkin we oli bin gro*

## 7. Raetem hamas sid i gro

Test hemi finis taem nomo sid i gro.

Nao ia yu mus wokaot wanem percentage (%) we i bin gro.

Luk long paket blong sid long **baket 3**. Raetem % long hem.

Sipos % i mo smol bitim 40% karem i go long **baket 4: blong planem long karen**

Sipos % i mo big bitim 40% karem i go long **baket 5: blong pakagem sid**

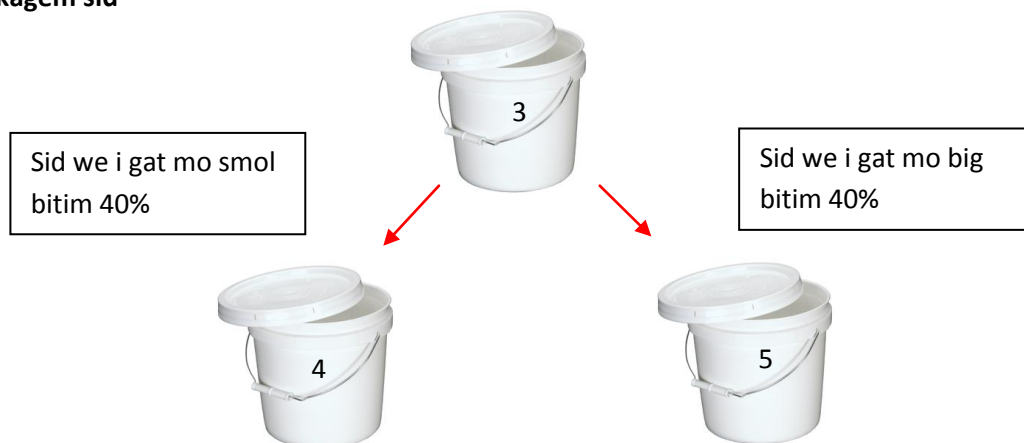
Blong mekem % yum as save:

- hamas sid i bin stap long start blong test
- hamas sid i bin gro

Blong faenem % - sipos yu gat 20 sid long start mo 18 i we i bin gro:

$$20 \div (\text{divided by}) 18 = 0.9$$

$$0.9 \times (\text{times}) 100 = 90\%$$



### Baket 4: blong planem long karen

Sipos no tumas sid i gro o yu no gat fulap sid, planem long karen blong mekem mo sid mo usum semak teknik blong harvestem, klinim, draem mo testem bakegan.

### Pakagem sid

Sipos yu wantem sarem ol sid, i gud blong usum fasin ia blong pakagem.

1. Karemaot ol sid blong testem long drae (luk bakegan long test blong bigfala, medel mo smol sid)
2. Putum sid long big pepa, karemaot eni no gud o smolmol sid
3. Workemaot hamas sid bae i go long wanwan pakag:  
Numba sid blong karen  $\div$  (divided by) % of sid we i gro = numba long sid blong wanwan pakag



Eksampol:

Numba long plants blong we yu wantem long karen: 15

% sid we i gro: 75%

$15 \div (\text{divided by}) 0.75 = 20$  sid long wanwan pakag



4. Kaontemaot ol sid blong wanwan pakag mo putum long pakag
5. Silim pakag long sid
6. Raetem ol infomason long pakag olsem:  
Nem blong sid (wetem varieti sipos yu save)  
Hamas sid long pakeg  
Date blong pakeg  
Eni specol instrukon blong planem

Tomato

Smol kaen

25 sid

Pakeg long 20/9/14

7. Putum ol sam kaen sid togeta wetem lastik mo putum long **Baket 6: blong serem**
8. Raetem numba blong pakeg long 'Pakag rekord' (template blong hem i stap long end blong buk ia)
9. **Taem sid i stap long pakeg i imponen yu storem gud – smol wetwet bae i spolem ol sid**

### Hao blong storem sid

Ea blong Vanautu i wetwet – hemi no gud blong storem ol sid!

Yu mas putum ol sid wetem wan samting blong pulumaot wetwet long ae. Yu mas putum pakeg blong sid long jar o tin we i gat strong lid blong hem. Olsem yu bin putum asis blong fae long evri baket, insaed jar o tin yu mas putum:

- asis blong fae we i kolkol  
o
- raes  
o
- poda milik

from olgeta save pulumaot wetwet blong ea mo mekem sid i sef.



*Putum asis blong fae we i kolkol blong mekem ea insaed jar i drae*



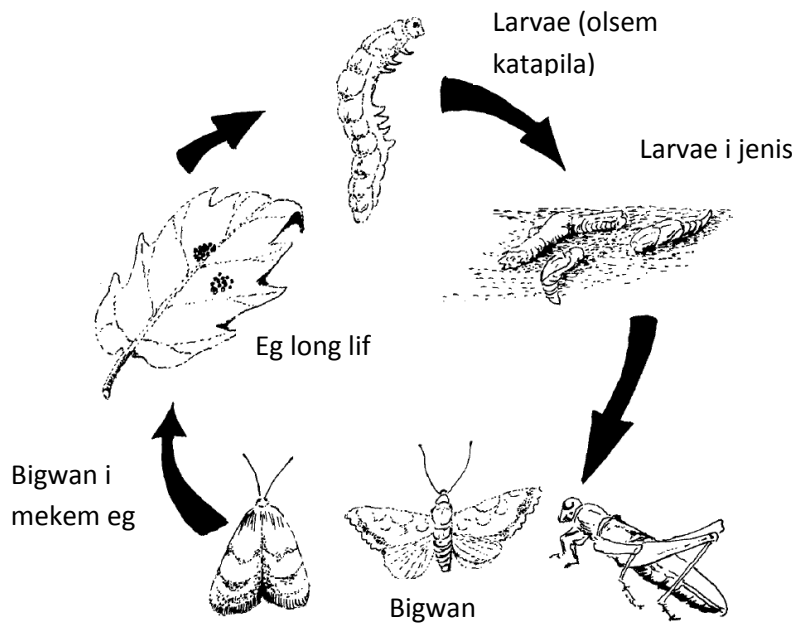
*Usum jar o tin we i gat strong lid blong hem*

## Hao blong managem sik blong plant mo bebet

Section ia i helpem yu identifem ol bebet we i stap long karen blong yu mo sam teknik blong blokem. Be tu i helpem yu kasam long saed blong predator, sam gudafala insect o animol we oli helpem yu from oli kakae ol bebet.

### Laef blong bebet

Ol bebet oli start olsem wan eg, afta i kam long wan larvae olsem katapila o wom, afta i mekem wan smol basket mo go insaed blong jenis long wan bigwan. Bigwan i mekem eg mo cycle i start bakagen.



### Difren kaen bebet

Ol difren kaen bebet oli stap long karen mo bus.

#### Pest

Sam bebet oli kakae mo spolem ol plant – yumi kolem olgeta 'pest'.



*Katapila blong whiteboon*



*Katapila blong alean kabis*



*Grasopa*



*Fli betel*



*Pod sucking bug*



*Katapila blong tomato*

## Predator

Sam nada bebet oli kakae ol pest – yumi kolem olgeta ‘predator’. Oli helpem ol fama mo yumi mus encougem olgeta blong stap insaed karen blong yumi. Yumi also gat sam nada animol predators.



*Hova flae*



*Laedibird*



*Spaeda*



*Praein mantis*



*Lised*



*Smol pijin*

## Fasin blong blokem pest

Yu save mekem fulap samting blong blokem pest long karen blong yu.

### 1. Enkarejem ol predator long karen blong yu

Hova flae, laedibird mo praein mantis oli likim smol smol flaoa, olsem flaoa blong carot, korianda, mo marigold. Oli likim mulch tu from i mekem safe ples blong olgeta. Yu save enkarejem lised mo spaeda taem yu put sam ston o wud long karen blong yu. Smol pigin oli likim tri.



*Bi i helpem ol plant mekem kakae from oli ‘pollinate’ o mared ol flaoa*

Yu save enkarejem gudfala bebet olsem bi wetem flaoa long karen blong yu.

### 2. Mekem graon i rich

Yu save usum ol teknik blong section 1 blong mekem graon blong yu i rich – olsem, mulch, compost, alley cropping. Taem we graon i no rich, ol plant oli kam slak. Healti graon, healti kakae!

### 3. Cleanim up karen

- Karemaot plant taem yu harvestem – sipos ol plant i healti, putum long compost
- Karemaot plant we i gat sik long hem mo bonem
- Cleanim up ol fruit taem oli foldaon long graon – fidim long faol o pig



Taem yu usum wan tool or bush naef widim wan plant wi i sik long hem, yu mus klinin gud afta blong blokem spread blong sik blong plant. Putum naef long flem blong faea qwiktaem be lukaot long han blong yu!

### 4. Karemaot pest

- Taem yu luk wan pest we i kakae ol plan blong yu long karen blong yu, yu mus karemaot wetem hand blong yu.
- Ol faol oli gud blong kaekae ol pest. Taem yu gat pest we i kakae karen, wan pest, yu save putum sam faol i go insaed karen blong yu, blong kakae ol pest. Be yu mus putum short taem nomo, from ol faol oli likim kakae ol plant tu!

Taem we ol kakae i finis, i gud blong putum faol long karen from:

- oli save kakae plant nao from oli no save mekem mo kakae blong yu
- oli bae kakae ol pest (mo eg mo larvae long graon we oli wait long nexis plant)
- oli bae mekem graon i rich wetem sitsit blong olgeta
- oli bae usum leg blong hem blong mekem graon i sofsop mo redi blong nexis plant.



*Karemaot pest wetem han blong yu*



*Faol i likim kakae pest*

## 5. Strong plant o 'resistant varieties'

Yumi gat sam specol plant we oli stong blong blokem ol pest mo sik blong plant. Samtaem yu callim 'resistant varieties'. Care International oli bin sarem specol variety blong Vanuatu Agriculture Research mo Training Centre we oli plant save grow gud long drae taem. Oli sam gud plant blong planem long karen blong yu.

Usum ol teknik long Section 2 blong savem ol seed mo tuber blong olgeta o karem ol cutting blong olgeta mo growem ol niu plant long hem.

I gud blong savem mo planem ol sid blong ples blong yu from oli kam mo strong evri taem yu planem. Local sid i mo gud bitim sid long stoa from oli kam long wan nada climate mo graon.



*Resistant varieties blong Vanuatu Agriculture Research mo Training Centre (VARTC) we Care bin sarem wetem ol comunite long Futuna*

## 6. Usum plant we gat strong smel

Fulap pest no likim plant we i gat strong smell long hem be fulap predoator olsem hova flae, laedibird mo praein mantis oli likim korianda mo marigold. Planem plant we i gat strong smel klosap long karen blong yu. Sam gudfala plant oli includim:



*Marigold*



*Ginga*



*Vietnamese lif / mint*



*Pima*



*Lokal Kuri*



*Basil*



*Korianda*



*Garlic*



*Onion/ salad*

Mo tu, i gud blong usum mixed cropping teknik from i mekem mo hard blong ol pest blong findim ol plant.

Taem yu usum crop rotation i gud blong blokim sik blong plant tu from sipos yu putum semak plant evri taem sik i save kam long graon.

## 7. Waterm karen blong yu

Pest mo sik blong plant oli save atakem plant we i no strong. Hemi very impoten we yu waterem karen blong yu. Taem plant oli drae tumas, oli gat more janis blong karem pest mo sik blong plant.

Taem yu usum sam teknik olsem compost mo mulching yu reducem nid blong waterim karen. Taem yu usum mulch yu daonem wota karen i nidim 60%.

## 8. Usum ol najurol spray

Wan teknik yu save usem blong blokem ol pest i najurol spray. Yu save mekem sam spray wetem plant blong karen olsem pima o tobacco, wetem sam sop blong kijen.



*Yu save usum wan spesel spraya*



*O sipos yu no gat, wan lif*

Sipos yu gat, spraya i mo gud from yu save spray behin lif we fullap pest i stap.

Yu nidim spray 1 o 2 taem long wan wik, mo evri taem afta ren.





### Sam impoten samting:

1. Lukaotem gud yu taem yu stap usum najurol spray
2. No mas breath long spray mo no mas spray long yu wan
3. Wasem hand blong yu mo ol klos yu bin usum taem yu mekem mo usum spray
4. No usum dish blong kijen o dish blong wota. Klinim gud ol tul olsem naef afta yu usum.
5. Mekem sua ol pikinini mo ol animol no gat akses blong spray
6. Harvestem ol kakae we i redi bifo yu usum spray
7. Usum helti mo fres kakae nomo blong mekem spray
8. Mekem smol test furstaem bifo yu usum long bigfala ples
9. Usum najurol spray taem yu gat fulap pest long karen nomo. Smol pest hemi olraet, yu nidim sam pest blong enkarejem predator blong stap long karen blong yu









**Wanem spray blong wanem pest?**

**Pest we i kakae hol long lif**

Spray	Anis 	Betel (beetle) 	Katapila (caterpillar) 	Grashopa (grasshopper) 
Ash		✓		✓
Garlik/Lae			✓	
Gliricidia			✓	
Hot wota	✓			
Oel		✓		
Pima	✓		✓	
Popo				
Sop				
Korosol			✓	✓
Tobak			✓	



**Pest we i pulum juc long lif**

Spray	Afid (aphid) 	Milibug (mealybug) 	Planthopa (planthopper) 	Skal (scale) 	Thrip 	Waetflae (whitefly) 
Ash						
Garlik/Lae					✓	
Gliricidia	✓					✓
Hot wota						
Oel	✓	✓		✓		✓
Pima	✓	✓				
Popo					✓	
Sop	✓	✓		✓		✓
Korosol	✓		✓			
Tobak	✓					

## Ash

### Caution:



- Ash hemi mas kol kol bifo yu usum
- No mas usum long ol young plant o klosap long stampa blong plant



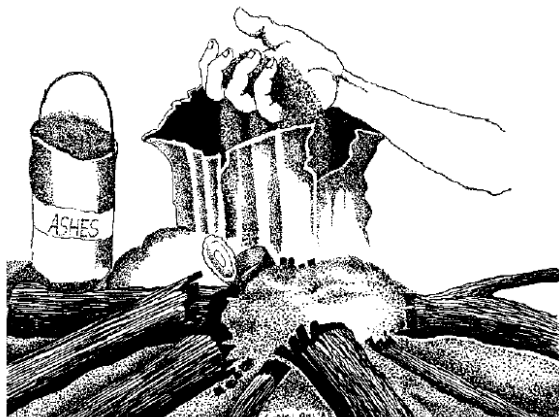
### Hemi blong:

Usum katapila, grasshopa, cutworm, wevils mo afid.

Hemi gud tu blong sik blong plant olsem mildew mo club rut.

### Olsem wanem blong usum:

1. Taem we yu luk pest long karen o smol hol long lif, yu save usum ash.
2. Usum ash blong firewood blong putum long ol plant o putum fulap long ol plant blong blokem pest blong graon (olsem cutworm mo club rut).



Collectem ash blong fire taem i kol kol



Putum ash i ko long plant olsem dust long lif blong plant

## Garlik/lae spray

**Hemi blong:** Usum long katapila, mite mo thrip

Mo tu yu save usum long sam sik blong plant (fungal sik blong plant)

**Yu nidim:**

Recipe 1: 4 clove blong garlik, smol oil, 2L wota, 4 smol spon likwid sop, baket.

Recipe 2: 4 clove blong garlik, 4 pima, 2L hot wota, 4 smol spon likwid sop,

**Olsem wanem blong mekem:**

Recipe 1

1. Smashem garlik mo mixim wetem smol oil
2. Livim i stap long naet
3. Putum garlik wetem 2L wota
4. Usum sef blong karemaot ol bigfala garlik
5. Putum 4 smol spun long likwid sop
6. Spray long ol plant



Recipe 2

1. Smashem garlik mo mixim wetem 2L hot wota
2. Smashem pima long wan plastik mo putum long wota wetem garlik
3. Putum 4 smol spon long likwid sop
4. Taem spray i kolkol, spray long ol plant



## Gliricidia Spray

### Caution:



- Gliricidia i wan posen – lukaot gud long pikinini mo animol taem yu mekem
- Wasem hand blong yu gud taem yu mekem o usum spray



**Hemi blong:** Usum long afid, katapila, waetfly

Sipos yu gat rat, yu save mekem posen wetem gliricidia

### Yu nidim:

Recipe blong spray:

1/4kg lif blong gliricidia 1L wota, baket, 10L wota, sev, 5 smol spon likwid sop

Posen blong rat:

Gliricidia spray, dan raes

### Olsem wanem blong mekem:

Gliricidia spray:

1. Grinim o smashem lif blong gliricidia
2. Mixim wetem 1L wota
3. Livim i stap long naet
4. Usum sef blong karemaot ol lif
5. Putum nada 10L wota
6. Putum 5 smol spon likwid sop
7. Spray long ol plant

Posen blong rat:

1. Mixim spray blong gliricidia
2. Kukum raes
3. Mixim spray wetem raes
4. Putum raes long wan bambo blong blokim pikinini mo dog
5. Bae yu nidim mekem fres posen everi dei



### Gras blong solwota spray

**Hemi blong:** fungal mo problem blong bacteria olsem brown rot, black spot mo curly lif.

Mo tu i gud blong spray long lif long plant blong mekem strong.

**Yu needim:** 1 baket long sea weed, baket mo water.

#### **Olsem wanem blong mekem:**

Kolektem sea weed

Kavremap baket blong sea weed wetem wota mo livim kasem taem kala i kam brown (hemi save tekem two wiks).

Karemaot ol sea weed, mo usum wota we i kamaot long baket blong spray long ol plant we sik mo ol lif blong plant.

Yu save usum sea weed olsem mulch



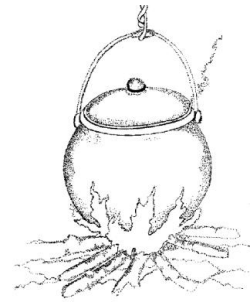
*Usum wan lif blong sprayem plant*

## Hot wota

### Caution:



- Lukaot gud long yu taem yu usum hot wota
- Mekem sua pikinini i no save bonen hem wan



**Hemi blong:** Usum long anis, nematode long yam, mo tu blong steralise graon blong nerseri

### Olsem wanem blong mekem:

#### Blong anis:

Putum hot wota long nest blong anis. Be lukaot yu no putum hot wota long rut blong smol plant klosap long nest, bae yu killim i ded plant!



#### Blong steralise graon blong nuseri:

Kapsatem hot wota long graon we yu redim blong planem. Bae hot wota klinim ol graon mo kilim i ded sik blong plant we i stap long graon.

#### Blong nematode long yam:

Yu save usum hot wota blong kilim i ded nematode we oli stap insaed yam wetem drae rot. Yu mus klinim bifo kutum no planem.

Putum yam long hot wota long 51°C long 10 minit – i impoten yu usum glas (thermometer) mo klok.



*Brown rot long yam*

## Korosol spray

**Hemi blong:** Usum long katapila (especially long kabis), planthopa, grashopa

### Yu nidim:

Recipe 1: 500g fres lif blong korosol, 2L long wota, pot, baket, 10L long wota, sef, 10 smol spun likwid sop

Recipe 2: 2 han blong yu long sid blong korosol, 4L long wota, baket, 4 smol spol spun likwid sop

### Olsem wanem blong mekem:

Receipe 1: Lif blong korosol spray

1. Boelem ol lif blong korosol long wan pot wetem 2L kasam hemi kam 1/2L
2. Mixim wetem nada 10L long wota long wan baket
3. Usum sef blong karemaot ol lif
4. Putum 10 smol spon long likwid sop
5. Spray long ol plant

Recipe 2: Sid blong korosol spray

1. Grinim ol sid long wan paoda
2. Mixim wetem 4L long wota
3. Livim i stap long naet
4. Usum sef blong karemaot ol bigfala part long sid
5. Putum 4 smol spon long likwid sop
6. Spray long ol plant



## Marigold spray

**Hemi blong:** Usum long ol pest olsem wan 'repellent' – ol pest i no likim

Nematode i wan smol smol bebet we yu no save luk wetem ae blong yu. Hemi go insaed ol rut mo spolem. Oli likim yam mo banana. Taem i spolem yam oli gat brown rot. Taem i spolem banana oli kakae rut blong hem mo i mekem se tri i smol wan, frut i no gud mo tri i save foldoan long win. Be tu oli likim ol kind vegtibol olsem tomatoto, bin, carot, wotamelon. Be nematode oli no likim marigold. Yu save usum long karen blong yu blong blokem nematode. Mo tu, usum compost mo i helpem blokim ol nematode.



*Karot we nematode i spolem growth*



*Rut long lefsaed i bin gat nematode, i mekem se plant no save gro gud. Raetsaed hemi helti rut.*

### Yu nidim:

Recipe blong spray: 1kg long lif mo flaoa blong marigold, smol wota, siv, 6L wota, baket, 6 smol spon likwid sop

### Olsem wanem blong mekem:

1. Finim 1kg lif mo flaoa blong marigold
2. Smashem mo putum wota blong kavaremap ol lif mo flaoa
3. Livim i stap long naet
4. Usum sef blong karemaot ol lif mo flaoa
5. Putum nada 6L wota
6. Putum 6 smol spon likwid sop
7. Spray long ol plant



## Oel spray

**Hemi blong:** Usum long afid, milibug, skal, waetfly mo betel

Yu save usum long powdery mildrew



*Pampkin mo kukumber oli save kasam powdery mildrew – waet spot long lif blong hem*



**Yu nidim:** 1/3 cup oel (yu save usum oel blong kokonus), 4L wota, ½ spol spon sop poda blong washem klos, baket

**Olsem wanem blong mekem:**

1. Putum oel, wota mo sop poda blong washem klos togeta long wan baket
2. Mixem gud
3. Spray long ol plant

## Pima spray

### Caution:



- Lukaot gud long hand blong yu taem yu wok wetem pima
- No mixim wetem hand - usum stick blong mixim spray
- Pima spray i save kosem eye i sore



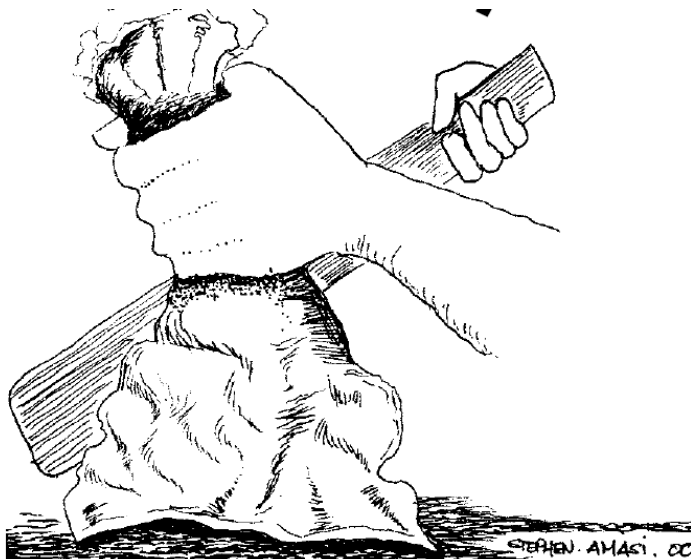
**Hemi blong:** Pima hemi act olsem poision blong stomach. Usum long katapila, stem borer, smol black betel, ant, afid, milibug

Mo tu i save helpem lif wilt

**Yu nidim:** 1 sel blong konas we i fulap long pima, 1 smol spon likwid sop, 1L wota, baket

### Olsem wanem blong mekem:

1. Putum ol pima long plastic bag mo smashem
2. Draonem sop long wota
3. Mixim sop mo wota wetem pima mo stirim wetem wan stik
4. Livim i stap long naet
5. Spray long ol plant



*Lukaot gud hand mo eye blong yu taem yu wok wetem pima. Putum pima insaed wan plastic bag blong smashem.*

### Popo spray

**Hemi blong:** Usum long ol thrip

**Yu nidim:** 1kg lif blong popo, 1L wota, kaliko, 2 bigfala spon liqwid sop, 4L wota



### Olsem wanem blong mekem:

1. Putum 1kg lif blong popo insaed wan kaliko
2. Skwisim long 1L wota
3. Karemaot kaliko mo lif
4. Putum nada 4L wota mo 2 bigfala spon liqwik sop
5. Spray long ol plant

## Sop spray

**Hemi blong:** Usum long afid, milibug, skal mo waetflae



*Hard sop*



*Likwid sop*

### **Yu nidim:**

Recipe 1: Hard Sop (sop no likwid sop), naef, 4L wota, baket

Recipe 2: 2 bigfala spon likwid sop, 4L wota

### **Olsem wanem blong mekem:**

#### Recipe 1

1. Usum naef blong sevem 5 bigfala spon long hard sop
2. Mixim sop wetem 4L wota long baket
3. Spray long ol plant

#### Recipe 2

1. Mixim 2 bigfala spon sop wetem 4L wota long baket
2. Spray long ol plant

## Tobak spray

### Caution:



- Livim ol kakae blong plant we i stap 2 dei afta yu spray bifer yu kakae.
- No usum long tomato, egplant o kapsikum from bae hemi save spreadem sik blong plant.



### Hemi blong:

Tobak spray oli act olsem posen blong stomach. Usum long lif blong plant blong fulap pest olsem katapila blong banana, betel, afid mo thrip.

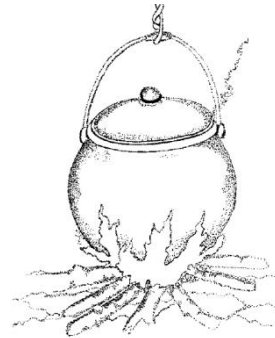
Yu save wotarem i ko long graon blong save controlem cutworm, magot blong rut mo graon bete.

**Yu nidim:** 5 lif blong tobak, 3L wota, sef, 4 smol spun likwid sop

### Olsem wanem blong mekem:

#### Recipe 1

1. Boilem lif blong tobak wetem 3L wota
2. Strainem mo mixim i ko long wan kontena
3. Livim blong i kolkol
4. Spray long plant o graon



#### Recipe 2

1. Smashem lif blong tobak
2. Putum long baket wetem 1L wota
3. Livim i stap long naet
4. Putum 1L moa wota
5. Usum sef blong karemaot ol lif
6. Putum 4 smol spon long likwid sop
7. Spray long ol plant o graon

I impoten yu eksperimen wetem ol spray blong findim numbawan ansa blong problem long karen blong yu. Usum pepa ia blong raet daon eksperimen blong yu.

<b>Plant</b>	<b>Problem blong hem (exsampil hol long lif, waet spot long lif, hol long frut)</b>	<b>Hamas i gat problem (exsampil 2 lif nomo, evri frut)</b>	<b>Fasin yu managem (exsampil pima spray, putum faol long karen, hot wota, karemaot pest)</b>	<b>Hamas taem (exsampil: spray 2 taem wan wik long 3 wik, karemaot pest evri morning)</b>	<b>Risal:</b>
<i>Waetboon</i>	<i>Katapila kakae hol long lif</i>	<i>Ol waetboon</i>	<i>Karemaot katapila wetem han, luk long eg behin lif, pima spray</i>	<i>Karemaot katapila wetem han mo luk long eg behin lif evri moning. Spray 2 taem wan wik</i>	<i>Sam waetboon i gat hol be katapila i no stap noaia</i>

## Checklist blong karen

### Mekem graon i rich

- Usum compost
- Usum mulch – karen i gat material yu save usum blong mulch (olsem gliricidia, vetiver grass or lemongrass, bigfala tri we ol lif i foldaon)
- Movem ol plant wetem crop rotation
- Planem ol difdifren plant togeta (blong mekem i hard long pest blong kakae tu)
- Usum gliricida long karen olsem alley cropping

### Planem sid

- Blong mekem graon blong neseri usum mix wetem kokonas, compost mo graon
- Klinim graon blong neseri wetem hot wota fastaem
- Wotarem gud ol sid mo sidling
- Taem sidling i gat 2 tru lif movem long bigfala pot
- Mixim compost witit graon blong karen
- Taem sidling i gat 4 tru lif putum long karen

### Savem sid

- Setemap wan komite blong lukaot ol sid
- Usum baket system blong savem mo sarem sid
- Stoarem sid long jar o tin wetem strong lid mo asis blong fae insaed

### Wotarem ol plant

- Wotarem gud ol plant long karen (sik mo pest oli likim drae karen)

### Managem pest

- Enkarejem predators wetem ol flaoa (koriander, marigold)
- Planem plan we i gat strong smel
- Planem plant we yu save usum long najuro! spray (pima, gliricidia, marigold, tobacco etc)
- Putum foal long karen afta ol plant i finis





**Pakeg rekod**

<b>Date blong pakegem</b>	<b>Nem blong sid (mo varieti sipos yu save)</b>	<b>Hamas i bin gro</b>	<b>Numba blong pakag</b>	<b>Serem wetem hu ia?</b>	<b>Date blong sarem</b>
<i>20/9/14</i>	<i>Bin (dwarf)</i>	<i>67%</i>	<i>25</i>	<i>Mala Sanford Bronnie</i>	<i>30/9/14 7/10/14 7/10/14</i>

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