

M A N - E S E K Y A M A N P A K A N

Plant and Animal Husbandry

An Agriculture Book in Central Kankanaey

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## FOREWORD

Some of the glory of the Philippines lies in the beautiful variety of people and languages within its coasts. It is to the great credit of the national leadership over the years that no attempt has been made to destroy this national heritage. The goal has been instead to preserve its integrity and dignity while building on this strong foundation a lasting superstructure of national language and culture.

The present book is one of many designed for this purpose. It recognizes the pedagogical importance of dividing literacy and second language learning into two steps--literacy being the first. When a student has learned to read the language he understands best, the resulting satisfaction in his accomplishment gives the drive and confidence he needs to learn the national language. His ability to read, furthermore, is the indispensable tool for the study this program will require.

The Department of Education and Culture of the Philippines is proud to present this latest volume in a nationwide series designed to teach the national language through literacy in the vernaculars. It will strengthen both the parts of the nation and the whole.

JUAN L. MANUEL  
Secretary

## PREFACE

This book is one of several produced during a Writing Workshop sponsored by the Summer Institute of Linguistics at Bagabag, Nueva Vizcaya, during the months of November and December, 1976.

It is hoped that it will not only provide additional reading material for use in Adult Education Classes but that it will also prove to be a valuable source of information for those who wish to initiate practical and profitable projects in the areas of plant and animal husbandry.

Those who compare the Kankanaey and English versions should not expect to find a one-to-one correspondence between words and phrases, due to the widely differing grammatical patterns of the two languages. Rather, an attempt has been made to express the content in a way that is natural to each language.

Larry Allen  
Summer Institute of Linguistics

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## MAN-ESEK SI NATNATENG

Ad-ado ay kalasin di natnateng di kasapolan di awak sin inag-agew ta waday pamigsa ay man-obra. Man-esek tako sin galdin, nem-a ya sin payew. Asiet wada din matey, adi manlames, ya adi madakdakke ay is-ek tako, tan baken kosto din inis-ek, adi ammo din masapolna, naipaksaw din timpona.

Adina iso mo wada di kosto ay ammo si pan-onodan si kalindalyo ay napo si kosto ay padpadas di nan-galgaldin ya din insolat di nan-adal si man-esek. Wada abe din baan di gobilno ay pandamagan.

Kalindalyon di Pan-eskan si Nateng

### Enero-Pebrero

dipolyo  
pitsay  
labanos  
lobyas

sitsalo  
danggo  
wongbok  
sili

kalot  
mostasa  
kasimen  
patatas

itab  
talong  
litsogas  
kamatis

### Marso-Mayo

talong	kedis	kasimen	pitsay
dipolyo	wongbok	otong	lobyas
mani	danggo	itab	mais
agayap	sili	mostasa	

### Honyo-Agosto

lokto	kombasa	monggo	kalot
kedis	olang	gamey	togi
palya	tabongaw	labanos	kakkaiw
boyon			

### Septembre-Disembre

lobyas	pitsay	labanos	danggo
talong	kamatis	mostasa	wongbok
dipolyo	patatas	kalot	sitsalo
	litsogas	kabatiti	

Kalindalyon di Pane-eskan si Kaiw

### Honyo-Agosto

kapi	pelles	bebe	alnos
abokado	kalamansi	balat	dolokisen
balangkas	langka	papaya	tisa

Wada din timpo ay manbalbaliw. Din odan, pewek, dagem, teg-in ya podot, esa ay manadael si is-ek. Mon iwed di mabalin mo si naey di domateng.

## IYAT AY MAN-ESEK SI NATNATENG

Doway amagen mo say layden ay onodan sin pan-eskan si natnateng: 1. Idilitso din bin-i sin lokaw di galdin ay naabonoan; 2. Pagabayen din bin-i sin similyaan.

### Pansigdan di Dilitso ay Is-ek

1. Dilitso ay gomabay, tan adi madistolbo din lamotna.
2. Adi lomigat di alolongna.
3. Mayat sin tiyagew.
4. Ap-aptik di timpona yan malangew da.

### Pansigdan di Maisimilya

1. Waday timpo ay mansaganas abono.
2. Mayat sin panag-oodan, tan dakdak-en, asi is-ek sin galdin.
3. At-atik di bin-i ay masapol.
4. Pispisen din siged di gabayna si is-ek.

## MANSINOSKAT

Nanbinebken din kasapolan di natnateng. Din abono ay alaen di esa sin lota, ipataoli din odom. Din sakit aben di esa, adina peslen din odom.

Isonga mayat mo pansinoskaten din kalasi ay mais-ek ay adi patattaolien din isona ay nateng.

Mabalin ay pankakalasion di nateng olay sin sinpo ay kama di galdin, kaman da naey.

Pansinoskaten abe di is-ek mo maikadwa ay timpo.

kama 1-2 - lobyas	kama 7 - kamatis
kama 3-4 - wongbok	kama 8 - danggo
kama 5-6 - pitsay	kama 9-10 - talong

Din natnateng ay mangabos si abonos lota, mayat mo ammoen din ngadan da. Daida din mais, kamatis, wongbok, pitsay, dipolyo, talong, sili ya odom. Din mangipataoli abes abono sin lota, din kedis, agayap, lobyas, mani, sitsalo, monggo ya odom.

Ammoen tako da na, ta mo man-esek tako ya din mangabos si abono di nangon-onas inis-ek,

baken patattaolien. Sokatan sin odom ay naténg  
ay mangipataolis abono sin lota.

### MANTINAPI

Din natnateng ay mayat ay mantatapi sin  
sinkas-ek ay tinimpo, din ando di biyagna sin  
madalas ay malangew, kaman da naey:

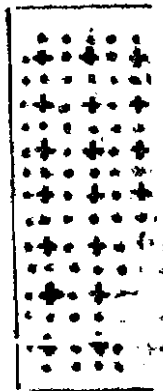
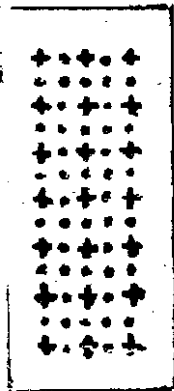
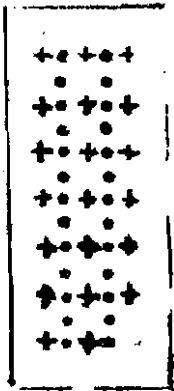
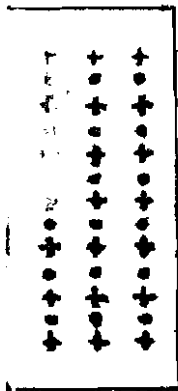
1. talong, pitsay, danggo, wongbok
2. lokto, kombasa, sangdiya, kedis, mais, agayap
3. mais, mani, otong
4. gamey, tiyangsoy, kinawang

### Pansigdan di Mantitinapi

1. Man-asitolong da sin kasapolan da ay abono.
2. Adi mabeas din galdin.
3. Adi kasokpot di kasapolan ay natnateng sin  
kosina.
4. Mo man-abono sin nais-ek, mandededsan da ay  
maabonoan.
5. Adi somngaw ay dagos din danom sin lota.

Opat din iyatna ay mantitinapi, kaman din  
maila sin dolowing.

Din + andoy biyagna  
Din . madalas ay malangew



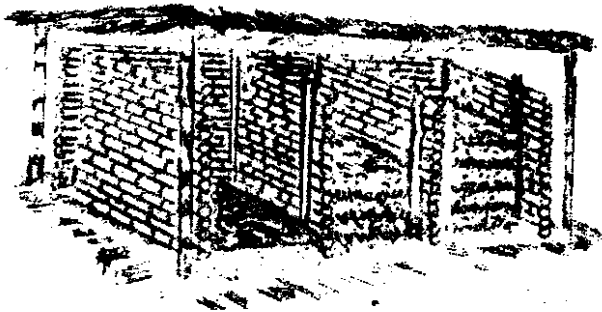
## MAN-AMAG TAKO SI ABONO

Am-in ay is-ek tako sin galdin ay nateng, adi da gomabay, madakdakke ya manlames si ad-ado mo din lota ya enggay naabos din abonona. Siyat pataolien din abono mo layden ay man-gabay di is-ek.

Mabalin ay malakoan din abono mo wada di pilak. Mon mabalin abe ay amagen tako di abono sin alobayan mo adi kabaelan ay manlako.

Naey di maonodan mo layden ay man-amag si abono.

1. Man-amag si kitkittoy ay beey sin asag-en si galdin. Atpan si gaon yan daligan ta adi maiwalang din maipeey ay basola, tai, logam, degi ya poo. Ilaen din dolowing mo say layden ay onodan. Mo maga, basta ap-apan din madondonot ay basola sin deam, ta adi ilaylayaw din odan din abonona.



2. Mo waday logam sin alobayan down en ipeey sin inamag ay beey di abono. Mayat abe din peppait. En itapi mo wada di basola sin inag-agew. Man-agom abe sin tain di animal down en ipeey ta wada di manonot sin logam. Mo mabalin, talegtegen din maipeey ta madalas ay madonot.
3. Mo masensen din naipepeey, tapian si sanat-ik ay 14-14-14 ono odom ay "complete fertilizer". Mo maga, anggan lota. Gabyonen down sibogan si mamidwas esay domingo ta manlalaok din poo, tai ya logam, et madalas ay madonot. Passalen ta owat manbabasa komas kanayon. Mo nangaan,

adi madonot. Lawa abe mo manbasa ay pasiya.

4. Mabalín ay ípeey sin galdín mo lota di ilana.

Pansigdan di Nadonot ay Abono

1. Nalaka ay maa din masapol yan magay gastos.

2. Ad-ad-ado di idawatna sin mais-ek mo din malakoan. Bomayag abe, mon asiet siyat ad-adoen.

3. Adina dadaelen din lotan di galdín.

4. Tomolong ay mangipagapo sin lota, et nalaka ay lomamot din nais-ek.

5. Baken ay-ayyo din tain di animal ya manok.

AP-APAN DIN GALDIN

Ad-ado di pansigdan di maap-apan ay galdín mo maldeng ay maeskan.

1. Adi somngaw ay dagos din danom sin lota mo mansegít. Adi aben mantekang din lota. Mo man-odan, adi maowasan lota.

2. Adi gomabay ay dagos din logam.

3. Adi masgítan din kais-is-ek ay bin-i.



4. Madonot si abono.

5. Mabalín ay amagen da na sin nateng ya protas ay inis-ek.

Din mayat ay osalen si pan-ap-ap, din nadalos ya nango ay gaon, logam, tobon di balat ya odom ay kaiw, ya alogangi. Mo layden ay amagen, talegtegen tá nalaka ay madonot mo maitapi sin lota ay gabyonen.

#### MANPISPIS SI BIN-I

Baken am-in ay bin-i yan mayat si is-ek. Waday bin-i ay adi gomabay. Waday bin-i ay gomabay, asiet kolang di lamesna. Waday bin-i ay adi maibagay sin logal ono lota. Mon wada di bin-i ay mayat di gabayna, lamesna, natoled si

sakit ya lawa ay timpo.

Siged mo ammoen di kalasin di bin-i ay siged si is-ek sin galdin ta adi masayang di boway ya, gastos ay man-galdin. Isonga manpispis sin kasigedan di gabayna, ad-ado di lamesna, ya iwed di sakitna, tan nailowam sin logal. Mo din malakoan abe, pispisen din "improved variety."

#### SAKIT YA BIGIS

Am-in ay nem-a, payew ya galdin, mo wada di is-ek si kompolmi ay nateng ya protas, waday maila ay manadael en daida.

Ad-ado met di limidyo da, mon din kasapolan ay bomba ya agas, adi makaibala din is-ek tako mo ilako. Mo mabalin met kit di, alosen ay siag-i din bomba ta wada di osalen sin galdin ya payew.

#### Kabaelan Tako ay Amagen sin Galdin di Beey

1. Gab-oten ta poan din mansakit ay nais-ek.
2. Anapen bigis ya odom ay mangmangan si nais-ek ta kaanen ono peslen.

3. Say pispisen din "improved variety" si is-ek, tan natoled si sakit.
4. Pansinoskaten din is-ek, tan nankinalasi din sakit di natnateng.
5. Manlako mo mabalin sin mayat ay agas ono mamse si sakit ya bigis.

#### MAN-ESEK SI PROTAS

Kasapolan din awak tako di protas. Ad-ado di idawat da ay pigsan di awak mo wada di kalasi ay kanen si lames di balat, balangkas, kalamansi, abokado, dolokisen, papaya, kapi ya odom pay, mon adi tako padasen ay man-esek.

Masadot tako ay kasin man-esek mo natey din inis-ek sin damo. Baken koman pandomaan din inmey ay timpo. Man-esek kasin et matago.

## Marcotting

Waday esa ay mabalin ay amagen tako, anggan baken takon nalaing ono naadal si iyat di protas ay maad-ado. Siya na din kananda en "marcotting".

Mayat mo padasen tako, tan ad-ado din protas sin alobayan di beey ay siged mo omad-ado ay dagos.

Din kalasin di kaiw ay mabalin ay "marcotten", din kalamansi, dolokisen, gayabas, kaimito, abokado, kapi, langka, balankas ya santol. Pan-onodan mo Amagen di "Marcotting"

1. Pispisen din kasigedan ay pingi

si "marcotten". Kaanen din

kopkopna sin nan-inliked si

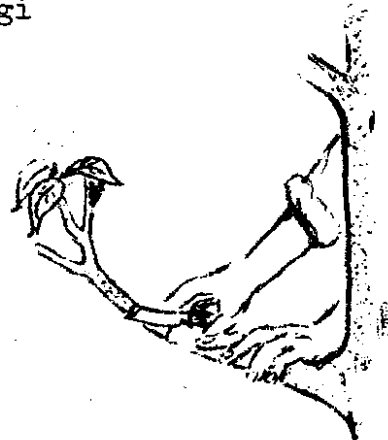
doway polgada ta waday

bomalaan din lamotna.

Mo din kadakdaken di

kaiw ay "marcotten",

1 3/4 ay polgada. Ilaen din dolowing.



2. Libotan si omanay ay bagiw  
din nakaan di kopkopna,  
yan omitapi sin kopkop  
sin kayang ya sin  
dallema ay  
makibongen. Ilaen  
din dolowing sin  
kanawan.



3. Bongenen si plastik  
ono silopin din  
inpeey ay bagiw,  
asi labden ta adi  
makakkaan. Ilaen  
din dolowing sin  
kanigid.

4. Liwasan din tobona ya kinitoy ay pingina ta adi somngaw ay dagos danom. Mo maegew, sibogan ta adi mango.

5. Mo emey di 3-10 ay boan, ilan mo binmala din lamotna.

Potoan, asi is-ek sin lata ay mapay-an si siged ay lota ta wada di gomabayana. Asi ipeey sin nasidoman ay logal. Ilaen din dolowing.



6. Mansaganas lokaw ay 20x20x20 ay polgada di kaanawana. Paypay-an si abono ay poo, loot ay madonot, tai ya basola. Is-ek din similya sin Holyo ono Agosto.

#### Nemnememen mo Amagen di Marcotting

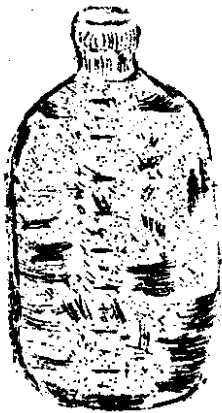
1. Manmarcot sin boan di Abril angganas Honyo, tan say logian di deam.
2. Owat din kopkopna di esten ay kiskisan.
3. Din "marcotten", din malames ya magabay ay kaiw ya pingina.



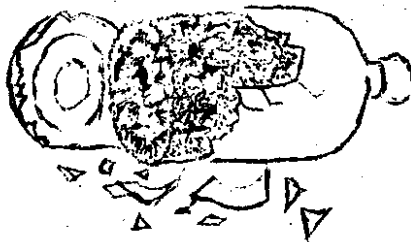
## MAN-ESEK SI OONG

Naey di essay kalasin di oong ay mais-ek sin awiddan di beey ono sin galdin. Mais-ek na sin tiyagew ya sin sayangan ono man-atóng ay logal. Mo layden ay lantán na ay kalasin di bage, basaen ay kosto din nay iyatna ay maamag. Baken omando di oblana na mo saganaen din ay masapol.

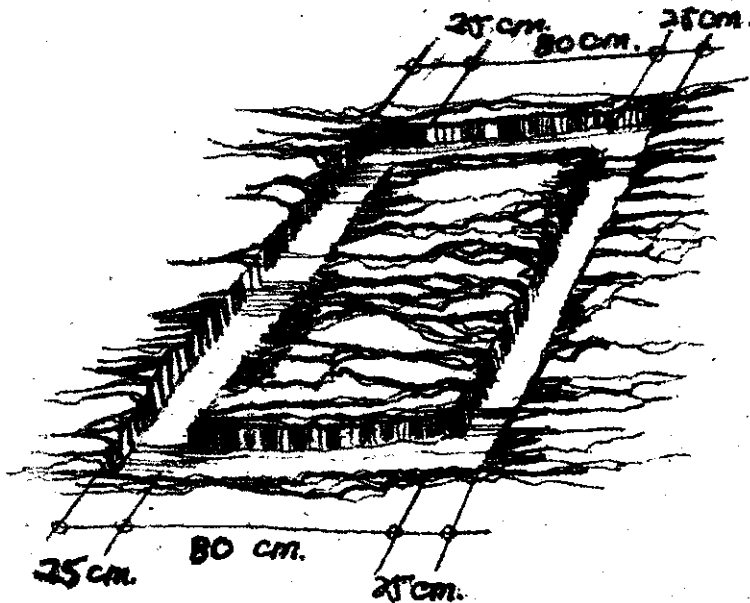
1. Manlako si esa ay litron di bin-i ay naipeey si botilya pala saes-ay metron di kama. Din bin-i, ilaen ta adi masmasgitan.

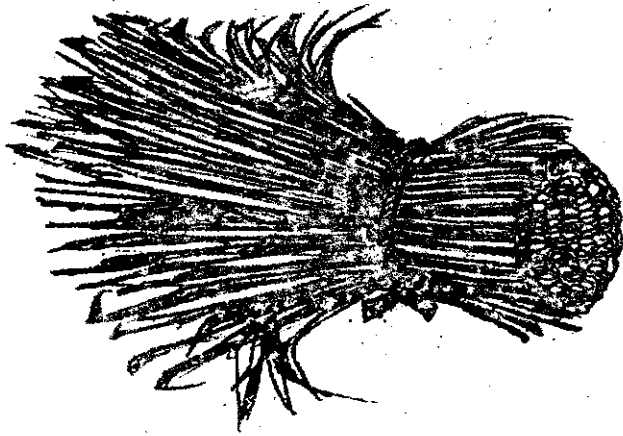


Gopaken din botilya  
ta way iyat bin-i  
ay ma

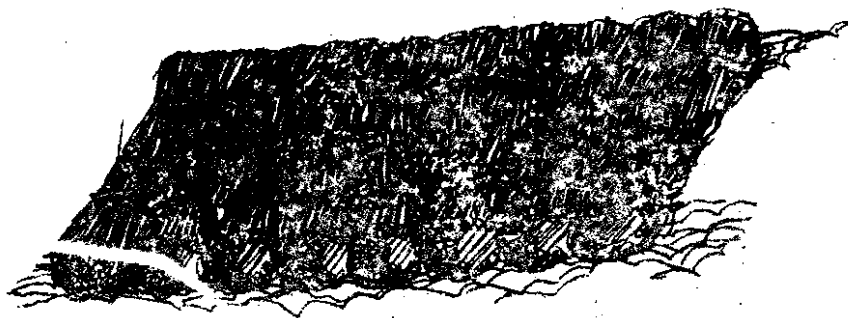


2. Man-amag si kama ay 70-80 cm. di kaanawana, esa ono nasolok ay metro di kaandona, ya 25 cm. di kakayangna. Padsekan din nansinoni si sadodwa ay kaiw ta manggen sin alogangi. Man-amag si kellian ay 25 cm. di kaanawana ya 25 cm. di kaldekna.

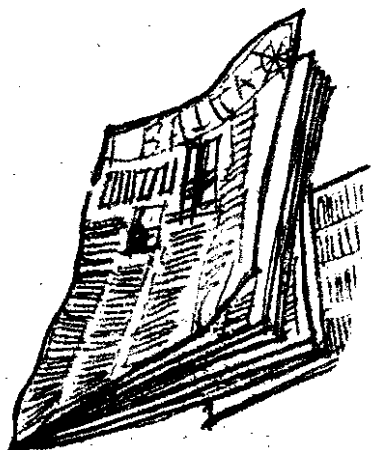


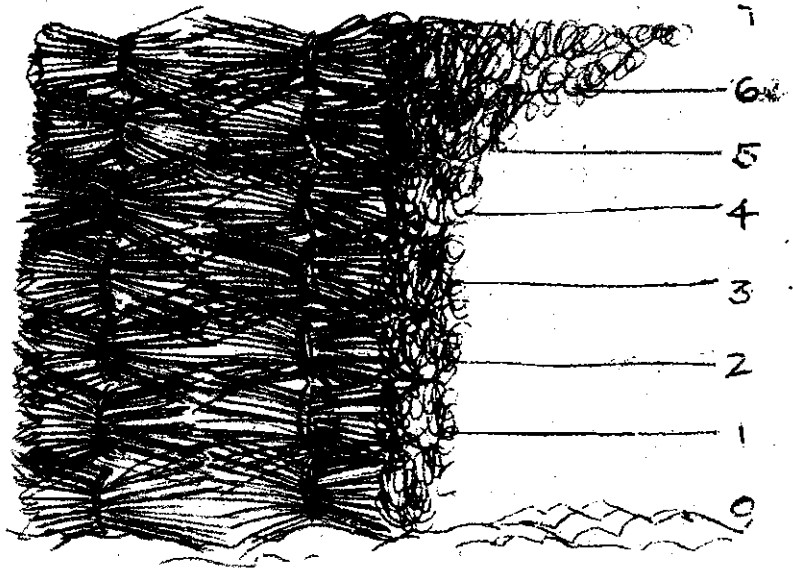


3. Mansaganas 175 ay labed di nango ay alogangi pala saes-ay metron di kama, yan potoan din poona. Enem ay polgada di kadakdaken di esay labed. Itab-en sin danom engganas lemengtey, pag dapaten di saes-a ay labed ay mansinetset. Pansinonien din alogangi mo dapaten, yan pabel-ayen din napotoan. Ilaen din dolowing sin bas-il. Gatinan din alogangi ta maisetset ay pasya downan sibogan si ad-ado ay danom.



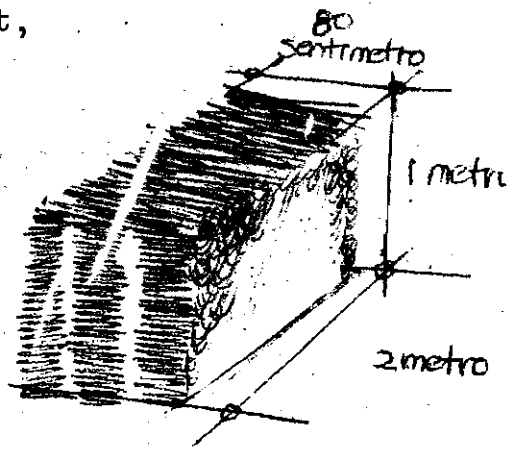
4. Ap-apan si "newspaper" ono manlengtey ay papil din alogangi, asi palengbayen di tolo ay polgada sin nanbinebngët. Bassaen din papil ta adi itayaw din dagem. Kinnitoyen din bin-i si kaman kadakdaken din palpal-ama, yan ipeey sin papil si saes-a ay dangan di betaeyna ya tolo ay polgada di kaadawi da sin bengetna. Ilop-it din papil ta lingbana din bin-i.





Mandapat kasin si saes-a ay  
 labed ay mansinetset,  
 asi gatinan down  
 sibogan ay kaman  
 din damo.

5. Onoden din  
 inamag engganas  
 naikan-em ay  
 akeypa ono nasoloh.

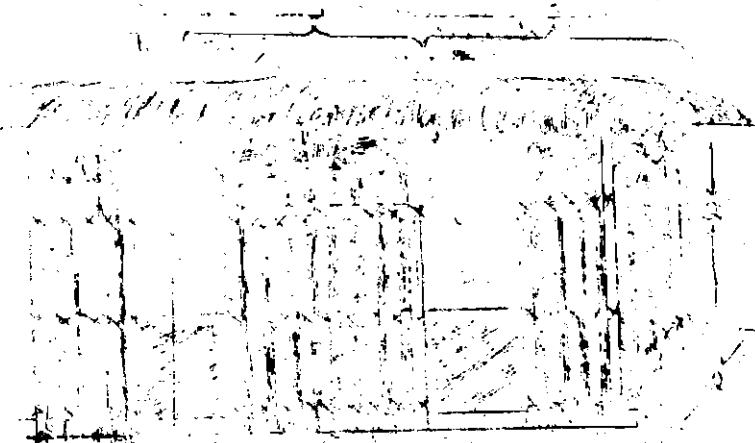
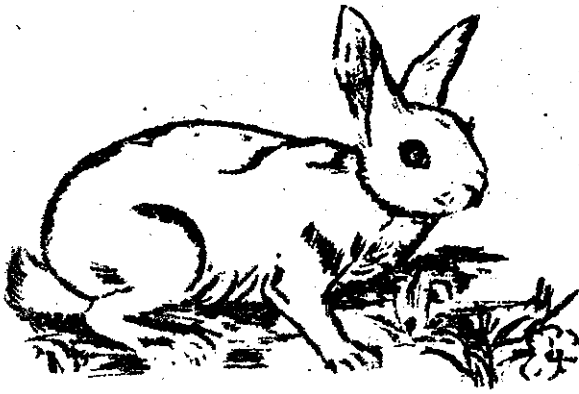


6. Ap-apan si silopin din sapewna mo emey di esa ay agew. Mo mabalin, anggan lemengbay din silopin sin nanbinebngget. Sin maikapito ay agew, en ilaen mo nangaan din nan-inigid, yan lesken sin tedekkan ta ilaen mo nangaan ono manbabasa. Mo manbabasa, adi sibsibogan. Mo nangaan, sibogan. Mo waday mailas oong ay gomabay ono somongaw sin bengetna, adi sibsibogan.
7. Waday bemela ay oong sin damo ay mapo sin alogangi. Kinitoy din sikina downan nalokawan. Mailasinan din osto ay oong, tan dadakke din toktokna yan nap-oan downan adi nalokawan. Mo mabilag din bolongna, mabalin ay langewen. Politengen mo langewen ta makaan din poona. Mo emey di pito ono sinpo ay agew, wada kasin di gomabay ay oong. Mabalin ay makalangew si oong is mamindowa engganas mamin-opat. Mo manlangew, sapaen sin bongbongo yan doy

ibang-et mo isida. Mo ilako, ibilag si tolo ay agew, pag ipeey sin kalton ono baskit. Sensenen engganang kaman eped nay mailako.

8. Mo maabos din oong, agomen din alogangi, asi itapi sin nadonot ay logam. Tapiang si tain di animal ta siged ay maiabono.

Amin ay kalasin di mais-ek, waday siged ya lawa di gomabayana. Mo maibagay din nay bin-i sin logal ay nais-ekana, siged di malangew. Mo bakenan kabagayan, lawa di malangew. Din oong ay nay, dakdake di maitolongna sin mamadas. Siya ay magastoan si at-atik mo manlako sin bin-i, mon mabalin ay masbotna. Mo ilako din ay oong, nangina. Emey ay ₱12.00 ono ₱14.00 di esay kilo ed Baguio. Si dakayo ay way dagana sin sayangan ono maat-atong ay logal, padasen yo.



tangeb

tangeb

beey di dowa  
ay koniho

## MANPAKAN SI KONIHO

Intoy iyat tako ay manantam ya gomameng sin koniho? Nalaka ay maamag mo onoden din nay naisolat.

### Beey di Koniho

Din masapol sin beey di koniho, kaiw, pao, ped ono gaon, ya bantalaan. Di kaanawana, 2x3x2 ay piya pala sin esa ay koniho. Din kakayangna, tolo ay piya ono nasolok sin lota. Mo dow a ono ad-ado ay koniho, kasligen din ay beey da. Siyat aben dalosan din nay beey das inagew.

### Kanen di Koniho

Din kanen di koniho, dow a ay kalasi: malakoan ay "pellets" ya "laying mash", toyo, nagiling ay mais, pagey ya aggey. Esa abe ay kalasi ay maipakan: lantong, tobon di balat, kinawang, siyangtoy, masपालong, sakati, yekyekgong, okis di natnateng ya din sayoti. Ilaen mo baken nalogit din ipakan. Siyat aben iyaan si danom.

Mo ilan ay ngabngaban din koniho din beey da, siyat iyaan si asin. Pakanen ya pan-inomen ay mamindowa si esay agew. Mo din manpaspasoso ay koniho, pan-inomen si olay mamintolos esay agew. Din pan-inoman da, siyat itaked ta adi maibeng mo paskadan da.

Iyat din Koniho ay Maad-ado

Say iyat din koniho ay maad-ado. Ipeey din babai sin kad-an di lalaki ta way iyat da ay mandakep. Ilasin din babai mo makdeng di sinpo ay minotos. Mo emey di tolonpo ay minotos, itaoli loman, mon mo gaan din babai, itaoli sin maikapito ay agew. Mo emey di sawas lima ay agew, itaoli din babai sin lalaki ta ilan mo mandakep da. Mo sigaan din babai, say pangilaan ay maliton. Man-anak din koniho mo makdeng di tolonpo ono tolonpo ya tolo ay agew. Bilangen di dowanpo ya enem ay agew, isagana din pan-anakan di koniho ay kahon. Pay-an si alotang ay toloy polgada di

kasdena. Asi pay makaammo din koniho ay manapi sin dotdotna.

Mo layden ay kasin man-anak din koniho, ilasin mo way opat ono enem ay dominggo din mapmapla ay koniho, manbilang si dow a ay dominggo yan doy kasin pan-abaten din lalaki ya babai ay koniho. Mo enem enggan as pito ay boan din anak di koniho, mabalin ay madakep da. Dadlon ilista din agew ay nadakpan ya nan-anakana.

#### Din Iyat di Koniho ay Maegnan

Mo alaen din koniho sin beeyna, baken ig-en sin ingana. Ig-en sin kopkop di tengedna, asi tapayaen din sikina sin esay takkay.

#### Sakit di Koniho ya din Iyatna ay Maagasan

Way sakit di koniho ay kaman din odom ay animal, mon mo mas-et di iyat da ay maayyoanan, mo nadalos din beey da, baken nalaka ay kompet da na ay sakit.

1. Sakit di inga: Mo manwagewaget din koniho

dowan gomiwegiwed din ingana, say pangilaan ay way sakitna. Ammosan si Bioderm Ointment din lokaw di kewengna.

2. Godgod: Mabayangan din kopkopna dowan mandotdot. Mankodkod din koniho tan man-gate. Emsen si danom ay natapian si malathion dowan bositsitan din beeyna. Onodan din naisolat si botilya ay amagen. Siged mo iadawi din beey di koniho sin kobongan di manok ta adi da maalisan sin kagew, tan da nay di kapoan di godgod.

Mo estem ay onoden din naisolat ay nay, waday gon-odem.

1. Nalaka ay maad-ado din koniho mo odom ay animal.
2. Mo isidam, ad-ado di maitolongna sin awak mo mo odom, ay patpatok.
3. Mo ilakom abe, pamindowaenay nginan di esay kilo ay patpatok di besaang.
4. Mabalín ay mailako abe din kopkop ya sikina.
5. Din taina abe yan, siged ay abono.

## MANMEGMEG SI PATO

Ay layden tako ay mansidas itlog ya patpatok di pato? Mo aw, kanan tako, naey da di mayat ay ammoen ya amagen ta adi maipaksaw din plano.

Insol t di ad-ado di padas da na ta wada di pan-onodan tako ay mandamdamo si megmeg di pato.

### Pansigdan di Patos Mamegmegan

1. Megmegan di pato ay kaman manok dedan.  
Man-iso di kanenda.
2. Nalakay pato ay maayoanan. Madakdake ya magitlog si ad-ado.
3. Abaken da din manok, tan baken nalaka ay matoy si sakit.

### Iyat ay Mangilogis Megmeg di Pato

Mabalin ay manlako tako si esa ay kawitan gadowa ay oppa. Si naey ay kaad-ado di mayat ay pangigapoan sin balliwang tako ay baken annawa. Koskosto mo din lakoan ay megmegan yan, din nasgi ta sigolado ay matago da.

Waday doway ay kalasin di pato ay siyat ammoen  
tan nakalasi abe din iyat da ay maad-ado. Din  
"itik" ay pato, adi dan eb-eban din itlog da.  
Esat paeb-eb sin manok, mon bomayag din itlog da  
ay mapotkian. Siyat emey di 28 ay agew. Din  
"bibi" ay pato, siya da nay mabalin ay mangeb-eb  
sin itlog da. Potkian da din itlog das 33 ay agew.

Pispisen din layden ay megmegan sin doway ay  
nay kalasin di pato. Esten ay ibaga sin panlakoan  
ta adi da omietek.

### Kolongan di Pato

Man-amag si kitkittoy ay pansidoman ya  
pangitlogan din oboan ay pato. Esten ay atpan ya  
daligan din kaipatangan di kahon ay pangitlogan  
da ta adi emey di aso. Siged mo aladen din beey  
da si pao ono kaiw ta adi da maitapi sin manok.  
Din baliwang di beey da, siyat wada di omanay ay  
pan-ayaman ya panganan das man-gabay ay logam.  
Mon mo iwed di logam sin kad-an da, siged mo iyaan

daidas kanen da ay tobon di logam ya odom ay layden da ay kanen. Mo iwed abe di danom sin kad-an da, pay-an si bayoka ono napotoan ay balilis si sinpo ay polgada di kalosongna ay pan-inoman ya panlangoyan da.

### Pangitlogan ya Pangeb-eban di Pato

Mo esa ay kawitan ya dow a ay oppa di megmegan, pay-an din beey da si dow a abe ay kahon, yan kosnongan si alotang ono alogangi ta osalen das obong.

Din "bibi" ay pato, mangitlog si sawas dow a enggan as sawas lima ay eb-ebana. Mapotkian din itlog si 31-33 ay agew. Mangan da din kiyap sin malabas di esay agew.

Mabalin ay maisida din pato mo enggay sinpo di boan da. Manpispis si siged ay panbonaten ay kawitan ya oppa ta waday iyat da ay maad-ado. Mo padasen ya mayat, tapi an ta wada di ilako sin kailian ay makasapol.

## MANPAKAN SI TILAPYA YA KALPA

Ad-ado di nigay sin ginewang, mon naligat di iyatna ay maa. Naey di limidyo ay nalaka ay onoden, mo layden ay mansimilyas ikan ta way isida. Nalaka ay pokoken di tilapya ono kalpa sin mantetek ay ili. Naey da di amagen mo layden yo ay padasen.

### Beey ono Pokokan di Ikan

1. Ilaen din logal ay nalaka ay edasan di danom. Ilaen mo adi matmatdok din kapoan di danom.
2. Oway din layden sin kaanawana, mon mo din iyatna, 2 sq. metros di pala esay tilapya, din kalpa yan, 5 sq. metros di esa. Mo din kalosongna, mabalin di esa ono dow a ay metros. Ilaen mo edasan di segit din pap-eng di nakaotan.
3. Man-amag si gosingan ono bemel-ayan di danom mo mapno. Pay-an si sagat ta adi onoden din ikan.

### Kanen di Ikan

1. Mansinop sin tain di besaang, manok, ono odom ay animal yan ipeey sin nakaotan. Sigsiged mo din kaitattai ta nalaka ay matomay. Da naey di tomolong ay mangidawat si bagiw ay kanen din ikan. Adi takon maloya sin tai ay kanen di ikan, tan magay idawat nas panlawaan di awak.
2. Mansinop si degi yan dowan ipeey kaman inyat sin tai.
3. Adi es-eskan ono paypay-an sin kinawang ono balili, tan lawa ay lingbana din lota, et adi gomabay di bagiw.

### Din Iyat ay Mannigay

1. Sitsitan din danom. Mo enggay nasayap da, pispisen din dadakke yan idolin din kinitoy ta kasin itob-ong.
2. Mo emey di esay taw-en, kaanen din danom yan galisen din ikan. Adi paypay-an si danom engganang mangan. Mo mantekang din lota,

gabyonen ono aladoen ta magimok din lota.  
Pay-an sin tain di animal, pag danoman. Baken  
siyat sokatan din danom mo laton ay adi  
man-akoo. Siged abe mo adi masoksokatan din  
danom, tan maiwasit din bagiw ay ginmabay.  
Sigsiged abe mo kadodogis, tan way pangaan  
das kanen da.

3. Kasin ipeey din ikan.

4. Mabalín ay pantapien din tilapyas kalpa, mon  
sigsiged mo ikasin di pokokan da. Mo mantinapi  
din tilapyas kalpa, mansisinpit da am-amed mo  
maad-ado da. Kaman din ipogaw ay mo mapno das  
esay beey ono kowalto, kolang di panyasyasan  
da.

Dengedengen tako din kanan da ay manbalbalin  
di tilapyas otot, mon maga di osto ay nangila.  
Sin diblo ay inamag di nankalalaing ay ipogaw  
maipanggep si ikan, magay kinkinwani das kaman  
nina. Mo mandamdag tako, ad-ado di namadas et.

doy sinmigid di biyag da. Adi da siyat manlakos  
isida da mo panggep di ikan. Mabalín abe ay  
man-ilako da.

Mo layden yo, ibaga yo sin Field Technician  
tako ta man-a ed Trinidad ono mankedaw kayo sin  
waday pokokana.

## ADI MALAKOAN AY GATAS

Ay layden tako ay man-inom si mayat ay gatas?  
Mo siya, intoy siged ay amagen ta adi koman  
pagmalakoan di gatas ay masapol di pamilya? Wada  
ngatay mabalin ay gatasen si animal sinan ili  
tako?

Mo songbatan tako din salodsod ay nay,  
baken ngin iwed. Wada ngin sin odom ay kailian  
ono agi di mail-ila ay kalding, baka ya nowang ay  
saes-a ya dowang. Siya met da na ay animal din  
kapoan di gatas ay malaklakoan sin am-in ay  
kantina. Din ligatna anggooy, adi tako ikaligat  
ay padasen mo intoy iyatna ay alaen din gatas sin  
animal. Mon di tet-ewa, mabalin din kalding ya  
odom ay animal ay masoloan ay mangidawat si gatas  
en datako dowan man-an-anak. Siged ngin mo din  
way animalna, tolagen ya olnosen da ta ibolos da  
ay magatas din animal da, et emey din ad-ado ay  
nemmem sin pansigdan. Ipadas mo mabalin.

### Timpo ay Magatas di Animal

Logian ay alaen di gatas di kalding ono animal mo kaan-anakna. Adi pandanagan din sosoen di olbon, tan sobla pay dedan din gatas inana. Basta ad-ado din kanena ya inomena.

Din kaandon di pan-gatasan si esa ay animal, tolo ono sinpo ay boan. Dipindi abe sin kalasin di animal ay magatas. Mo kasin maliton, saldengar ay gatasen si tolo ay boan, asi man anak.

### Pigay animal ay Masapol

Dowa ono tolo ay man-an-anak ay kalding, mabalin ay omanay ay mangidawat si gatas si sinkapamilya. Dowa ay baka ono nowang, omanay abe. Siged abe mo taptapian di masoloan ay animal ta mansinoskat da et kanayon di gatas ay kasapolan. Mabalin pay ay ilako ta ag-agaya.

### Onodan ay Man-gatas si Animal

Siyat wada kayman di anos ay mangipatogyo

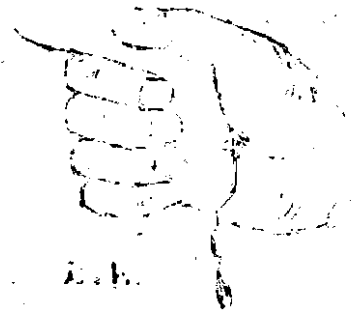
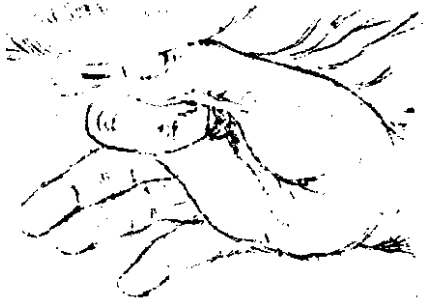
sin animal ta manbalin ay maamo, tan emegyat sin damo mo eg-egnan din soso da. Mon mo mailowam da, adi tako maligatan. Layden da pay ay dagos mo wada di idawat si kankanen da downan pepsesan din soso da.

Padasen tako ay adalen din nay pan-onodan. Wada din dolowing ay pangilaan sin ibagbagan di mabasa ay nay.

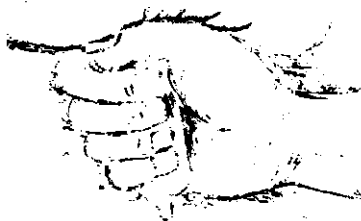
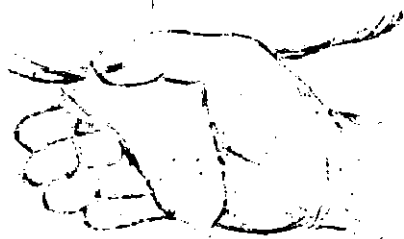
1. Itaked ono ilipit din animal. Ilaen din dolowing di kalding. Mansaganas timba ay nadalos, lopot, sabon ya man-at-atong ay danom. Manbo, owasan din sosen di animal, yan ponasan sin lopot ta mangaan. Ilaen abe ta nadalos din awak di animal ta adi malogitan din gatas.



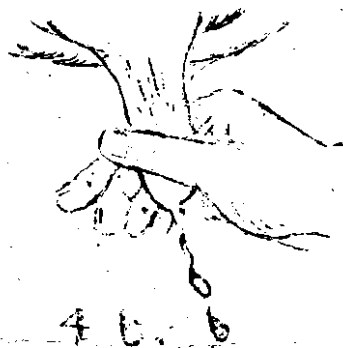
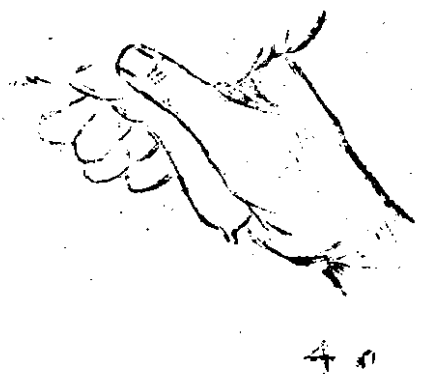
2. Am-amay-an ay egnan din poon di soso, yan pan-abaten da palp-al-ama en tedtedekan. Iwasit din damo ay gatas, tan nalogit, Adi legmen ta masakitan din animal. Pan-inon-oden din odom ay gomot ingganas palp-al-iking. Ilaen din 2a ya 2b ay dolowing.



3. Iwak din soso. Asi kasin egenan, yan itodtodon  
sin kayang ta waday iyat din gatas ay emey sin  
dallem ay soso. Ilaen din 3a ya 3b ta onoden.  
Pan-abaten kasin din gomot kaman din inamag  
sin damo.



4. Mo omanongos, am-amay-an abe ay pisiten din soso ay ilogi sin poona downan pabalalongen sin otdokna ta bomala din anongos di gatas ay kam-isan. Ilaen din 4a ya 4b ay dolowing. say iyat abe sin odom ay soso mo isokat ay gatasen.



## PLANTING VEGETABLES

The body needs many kinds of vegetables daily to strengthen it for work. We plant in the garden, sweet potato garden and rice field. But then some of what we plant dies, fails to bear fruit, and doesn't grow to good size, because what was planted wasn't correct, its requirements were unknown, the time was wrong.

It won't be like that if there is a proper source of information to follow, such as a calendar based on the successful efforts of gardeners and what has been written by agricultural experts. There are also those sent by the government who can supply information.

### Vegetable Planting Calendar

#### January-February

cabbage	sweet pea	carrot	lima bean
pechay	green onion	mustard	eggplant
radish	Chinese cabbage	cucumber	lettuce
bean	sweet pepper	potatoe	tomato

#### March-May

eggplant	pigeon pea	cucumber	pechay
cabbage	Chinese cabbage	cowpea	bean
peanut	green onion	lima bean	corn
tapilan	sweet pepper	mustard	

#### June-August

sweet potato	squash	mungo	carrot
pigeon pea	ubi	gabi	tugui
ampalaya	upo	raddish	cassava
upland gabi			

## September-December

beans	pechay	raddish	green onion
eggplant	tomato	mustard	Chinese cabbage
cabbage	potato	carot	green pea
	lettuce	patola	

## Tree Planting Calendar

### June-August

coffee	sour orange	pine	alnos
avocado	kalamansi	banana	orange
pomelo	jackfruit	papaya	tisa

There are changes in the weather. Rain, typhoons, wind, cold and heat, any of these can damage crops. But nothing can be done if these things occur.

## METHODS OF VEGETABLE PLANTING

There are two methods of vegetable planting which you might want to follow: 1. Put the seeds directly into a hole in the fertilized garden; 2. Grow the seeds in a seedbed.

### Advantages of Direct Planting

1. It grows directly, because the roots are not disturbed.
2. Shading it does not present a problem.
3. It is preferable in the dry season.
4. The time until harvest is shorter.

## Advantages of Planting in a Seedbed

1. There is time to prepare fertilizer.
2. It is preferable in the rainy season, because it is grown to a larger size, and then planted in the garden.
3. Fewer seeds are needed.
4. The plants with superior growth can be selected for planting.

## CROP ROTATION

Vegetables have varied needs. The fertilizer that one takes from the soil, another returns. The disease also that affects one will not kill another. So it is good if the various kinds of plants are rotated, the same vegetable not being returned again and again.

It is possible to have various kinds of vegetables, even in a garden with only ten beds, such as the following. Rotate what is planted the second time around.

beds 1-2 - beans	bed 7 - tomatoes
beds 3-4 - Chinese cabbage	bed 8 - green onions
beds 5-6 - pechay	beds 9-10 - eggplant

It's good to know the names of the vegetables that use up the fertilizer in the soil. They are corn, tomato, Chinese cabbage, pechay, cabbage, eggplant, sweet pepper and others. The ones that return fertilizer to the soil are pigeon pea, tapilan, bean, peanut, sweet pea, mungo and others.

Let's be familiar with these, so that if the first thing we plant is something that uses up fertilizer, it won't be returned again. It will

be replaced with a different vegetable that returns fertilizer to the soil.

## INTERCROPPING

The best vegetables to plant together at one time are those with long lives and those that are soon harvested, such as the following:

1. eggplant, pechay, green onion, Chinese cabbage
2. sweet potato, squash, watermelon, pigeon pea, corn, tapilan
3. corn, peanut, cowpea
4. gabi, water cress, kangkong

### Advantages of Intercropping

1. They help each other in supplying their needs for fertilizer.
2. The garden doesn't grow over with weeds.
3. Needed vegetables aren't cut off from the kitchen.
4. If the crops are fertilized, they are all fertilized simultaneously.
5. The water in the soil doesn't evaporate immediately.

## LET'S MAKE FERTILIZER

None of the vegetables that we plant in the garden will grow, mature and bear lots of fruit if the fertilizer in the soil has been used up. It is necessary to return the fertilizer if we want what is planted to grow.

Fertilizer can be purchased if there is

money. But it is also possible for us to make fertilizer in the yard, if we are unable to buy it.

This is what can be followed if it is desired to make fertilizer.

1. Make a small house near the garden. Roof it with kogon and wall it, so that the rubbish, manure, grasses, rice hulls and ashes that are put there won't be scattered. Look at the drawing if that's what you want to follow. If not, just make sure you cover the rotting garbage in the rainy season, so the rain doesn't wash away the nutrients.
2. When there are weeds in the yard, put them in the compost house that was made. Sunflowers are also good. If there is rubbish, add it daily. Also gather animal manure and put it in, so that there will be something to rot the weeds. If possible, cut what is put in into small pieces so that it will rot quickly.
3. When what is being put in has accumulated, add a little 14-14-14 or other complete fertilizer. If there isn't any, soil will do. Hoe it and water it twice a week so the ashes, manure and weeds become mixed together and rot quickly. Regulate the water so it stays damp. If it's dry, it won't rot. If it's very wet, it's no good either.
4. It can be put in the garden when it looks like soil.

#### Advantages of Compost

1. What is needed is readily available, and there are no expenses.
2. It gives more to the crops than commercial fertilizer. It also lasts long, but of course

- more must be used.
3. It doesn't ruin the garden soil.
  4. It helps to make the soil porous, thus aiding root penetration.
  5. Animal and chicken manure isn't wasted.

## MULCHING

There are many advantages of covering over or mulching the garden after it has been planted.

1. The water in the soil doesn't evaporate immediately when the sun shines. Neither does the soil crack. When it rains, the soil is not washed away.
2. Weeds don't grow immediately.
3. Newly planted seeds don't get damaged by the sun.
4. It rots and becomes fertilizer.
5. It can be done to vegetables and fruits that have been planted.

The best things to use for mulch are clean and dry kogan, grasses, leaves from banana and other trees, and rice straw. If you want to do it, cut it up fine, so it will rot quickly when it is added to the hoed soil.

## SEED SELECTION

Not all seeds are good for planting. Some seeds don't grow. Some seeds grow, but then they lack fruit. Some seeds are not suited to the area or soil. But there are seeds with superior growth, fruit, resistance to disease and bad

weather.

It is good to be informed about the kinds of seeds that are good to plant in the garden, so that the gardener's fatigue and expense are not wasted. Select accordingly those that have the best growth, a lot of fruit, and no sicknesses, because they are adapted to the area. As far as the commercial seeds are concerned, select the improved variety.

### DISEASES AND PESTS

Whatever kinds of vegetables and fruits are planted in a sweet potato garden, rice field, or vegetable garden, something will be seen damaging them.

There are, of course, many remedies, but the money we get from selling our crops doesn't begin to cover the cost of the required sprayer and insecticide. Nonetheless, if possible, solicit money for a sprayer from relatives, so there will be something to use in the garden and rice field.

#### What We Can Do in a Backyard Garden

1. Uproot diseased plants and burn them.
2. Look for worms and other things that eat the crops, so they can be removed or killed.
3. Select improved variety seeds, because they are resistant to disease.
4. Rotate the crops, because diseases that affect vegetables are different.
5. If possible, buy good insecticide or that which will kill diseases and pests.

## PLANTING FRUITS

Our bodies need fruits. If there are various foods such as bananas, pomelo, kalamansi, avocado, oranges, papaya, coffee and others as well, they give many things to strengthen the body, but we don't try to plant them.

We are unwilling to plant again if what we planted the first time dies. The past shouldn't hold us back. Let's plant again and it will live.

### Marcotting

There is one thing that we can do, even though we are not skilled or trained in the way fruits multiply. This is what they call marcotting.

It would be good if we tried it, because how nice it would be if the many fruit trees nearby the house would multiply right away.

The kinds of trees that can be marcotted are the kalamansi, orange, guava, star apple, avocado, coffee, jackfruit, pomelo and santol.

### Steps to Follow in Marcotting

1. Select the best branch for marcotting. Remove two inches of bark all the way around, so there will be a place for the roots to come out. The size of the tree to be marcotted should be 1 3/4 inches.
2. Wrap with enough moss to cover the place where the bark was removed, and extend the wrapping to the bark above and below it.
3. Enclose the applied moss with plastic or cellophane, then tie it so it can't come off.
4. Remove some of the leaves and smaller branches

so the moisture doesn't evaporate immediately. If it doesn't rain, water it so it doesn't dry up.

5. After 3-10 months go by, see if the roots have appeared. Cut it off and plant it in a can in which good soil has been placed, so it has a place to grow. Then put it in a shaded place.
6. Prepare a 20x20x20 inch hole and place ashes, rotted grasses, manure and rubbish in it. Plant the seedling in July or August.

### Things to Remember in Marcotting

1. Marcot in the months of April to July, because that's the start of the rainy season.
2. Thoroughly trim off only the bark.
3. Marcot a tree and branch that is vigorously bearing fruit and growing.

### PLANTING MUSHROOMS

Here is a kind of mushroom that can be planted in the backyard of the house or in the garden. This can be planted in the dry season and in warm places. If you want to taste this kind of mushroom, read these directions thoroughly. Not much work is involved once the needed materials are prepared.

1. Buy one liter of bottled spawn for each meter of bed. See that it is not exposed to the sun.
2. Make a bed 70-80 cm. in width, one or more meters in length, and 25 cm. in height. Stick two stakes in each corner to hold the rice

- straw. Make an irrigation ditch 25 cm. in width and 25 cm. in depth.
3. Prepare 175 bundles of dry rice straw for each meter of bed, and cut off the ends. A bundle should be six inches in size. Soak them in water until pliable, then place them in a row, making sure they fit tightly together. Overlap the ends of the straw in the row, facing the cut ends to the outside. Trample the straw so it becomes tightly packed, at the same time watering it with lots of water.
  4. Cover the straw with newspaper or other limp paper, extending it three inches over all the edges. Wet the paper so the wind doesn't blow it away. Break the spawn into small pieces about the size of the thumb, and place on the paper, one finger-to-thumb distance between them and three inches from the edge. Fold over the paper so it covers the spawn. Again lay the bundles tightly together in a row one by one, simultaneously trampling and watering like at first.
  5. Follow the same steps until it reaches six layers or more.
  6. After one day, cover the surface with cellophane. If possible, allow the cellophane to hang down over the edges. On the seventh day, go see whether the sides are dry and insert the index finger to see whether it is dry or wet. If it is wet, don't water it. If it is dry, water it. If mushrooms can be seen growing or appearing along the edge, don't water.
  7. There are mushrooms that appear initially from the straw. Their stalks are small and hollow. The proper mushrooms can be distinguished from them, because their heads are large and their stalks thick and not hollow.

When their tops spread out in the air, they can be picked. Twist them when picking so the base is removed. After seven to ten days go by, there will be more mushrooms growing. Mushrooms can be picked two to four times. When they are picked, do it early in the morning, and if it's for viand, go ahead and cook it. If they are to be sold, dry them in the sun for three days, then put them in a carton or basket. Let them accumulate until there seem to be enough to sell.

8. When the mushrooms are used up, gather up the straw, then add it to rotten weeds. Add animal manure so it will make good fertilizer.

No matter what kind of thing is planted, it will sometimes grow well, sometimes poorly. If these spawn are suited to the place where they are planted, they will give a good harvest. If not, the harvest will be bad. These mushrooms provide considerable benefits for those who try them. It's true that one has to spend a little to buy the spawn, but that money can be gotten back. Mushrooms command a high price. They sell for as much as 12-14 pesos a kilo in Baguio. So you who have land in a warm place, try it.

## RAISING RABBITS

How can we taste and earn money from rabbits? It's easy to do if we follow what is written here.

### Rabbit House

What is needed for a rabbit house is wood, runo, thatching material, and vine. The size is 2x3x2 feet for one rabbit. The height from the ground should be three or more feet. If there are two or many rabbits, keep them in separate houses. These houses must be cleaned daily.

### Rabbit Food

Rabbits eat two kinds of food: commercially sold pellets and laying mash, rice chaff, ground corn, unhusked rice, and wild grain. Another kind of food that can be given them is: camote tops, banana leaves, kangkong, water cress, fodder, green grasses, vegetable peels and chayote. See that what is fed to them is not dirty. They must also be brought water. If it is observed that the rabbits are gnawing their houses, they must be brought salt. Feed and give them water twice a day. As for a nursing rabbit, give her water three times a day. What they drink out of must be fastened down, so it doesn't spill when they step on it.

### The Way Rabbits Multiply

This is how rabbits multiply. The female is put with the male so they can mate. Separate the female after ten minutes. When thirty minutes go by, return her again, but if the female refuses to mate, return her on the seventh day. After

fifteen days go by, return the female to the male to see if they mate. If the female doesn't want to, that shows that she is pregnant. The rabbit will give birth after thirty or thirty-three days. Count twenty-six days, then prepare the box where the rabbit will give birth. Line it with rice straw three inches deep. Then the rabbit herself will be responsible to add her own hair.

If you want the rabbit to give birth again, separate her when her young are four to six weeks old, so they can be weaned. When the rabbits being weaned are about four to six weeks old, count two more weeks, and then have the male and female rabbit meet again. When the young rabbits are six to seven months old, they can be mated. Be sure to list the days on which they mate and give birth.

### The Way Rabbits Are Picked Up

When the rabbit is taken from its house, do not carry it by its ears. Carry it by the skin of the back of its neck, then cup the other hand under its feet.

### Rabbit Diseases and Treatment

Rabbits have diseases just like other animals, but if they are cared for carefully and their houses are kept clean, they will not be likely to catch these diseases.

1. Ear Disease: If the rabbit repeatedly shakes its head and flaps its ears, that's an indication that it has a disease. Apply Bioderm Ointment to the inside of the ear.

2. Scabies: Its skin will develop sores, and it will shed hair. The rabbit will scratch itself, because it itches. Bathe it in a solution of water and malathion, at the same time spraying its house. Follow the directions on the bottle. The rabbit house should be put far away from the chicken house, so the rabbits don't get infected by the chicken mites, because that's what causes the scabies.

If you carefully follow what has been written here, you will reap some benefits.

1. Rabbits multiply more rapidly than other animals.
2. If used for viand, it is richer in protein than other meats.
3. If sold, it is double the price of a kilo of pork.
4. It is also possible to sell its skin and feet.
5. Its manure is also good fertilizer.

## RAISING DUCKS

Would we like to eat duck eggs and meat? If our answer is yes, here are some good things to know and do so our plan doesn't go wrong. Those who have lots of experience have written this, so that those of us who are raising ducks for the first time will have something to follow.

### Advantages of Duck Raising

1. Ducks are raised just like chickens. They eat the same food.
2. Ducks are easy to care for. They reach large size and lay many eggs.
3. They are superior to chickens, because they don't easily die of sickness.

### The Way to Start Raising Ducks

We can buy one drake and two ducks. This is the most that it's good to start with in our narrow yards. It's preferable to buy ducks that have already left the mother, so that they are sure to live.

There are two kinds of ducks that we must be informed about, because they breed in different ways. The itik ducks don't sit on their own eggs. They must be incubated by a chicken. But their eggs take a long time to hatch, at least 28 days. The bibi ducks, on the other hand, do sit on their eggs. They hatch them in 33 days.

Choose whichever of these two kinds of ducks you want to raise. Be sure to make it clear to the ones from whom you are buying so they don't deceive you.

## Duck Pen

Make a small place where the female duck can shade herself and lay her eggs. Do a good job in making a roof and walls for the shelf on which the egg-laying box will be placed, so that dogs can't get to it. It's good to fence their house with runo or sticks, so they don't mingle with the chickens. The yard of their house must have sufficient space for them to play and get growing grasses. But if there are no grasses where they are, they should be brought leaves from the grasses and other things they like to eat. If there is also no water where they are, place a feeding trough or a drum cut to the height of ten inches, so they have a place to drink and swim.

## Laying and Sitting on Duck Eggs

If you are raising one drake and two ducks, place two boxes in their house and line it with rice chaff or straw so they can use it as a nest.

The bibi duck will lay twelve to fifteen eggs to sit on. The eggs will hatch in 31-33 days. The chicks can eat after one day.

The ducks can be eaten when they are already ten months old. Just select a drake and duck that would be good for breeding so they can multiply. If you try it and it's a success, add to the number of ducks so you have something to sell to the neighbors who need them.

## RAISING TILAPIA AND CARP

There are many fish in the river, but they are difficult to obtain. Here is an easy remedy to follow if you want to raise fish for food. It is easy to confine tilapia or carp in a cool place. This is what to do if you want to try it.

### Fishpond

1. Look for a place that is easily reached by water. Make sure the water source won't dry up.
2. The dimensions are up to you, but there should be 2 sq. meters per tilapia and 5 sq. meters per carp. The depth can be one or two meters. Just make sure the sun reaches all parts of the hole.
3. Make an outlet for the water when it fills up. Place a screen so the fish don't follow it.

### Fish Food

1. Collect the manure from pigs, chickens, or other animals and put it in the hole. Fresh manure is preferable so it will easily disperse in the water. This manure helps to produce algae, which the fish eat. We won't be contaminated by the manure the fish eat, because nothing that is bad for the body is passed on.
2. Gather up rice hulls and put them in just like the manure.
3. Don't plant or put in kangkong or flowering water plants, because they'll cover over the surface, and prevent the algae from growing.

## The Way to Harvest Fish

1. Drain the water. When the fish are exposed to view, select the large ones and keep the small ones to put them back.
2. After one year, remove the water and transfer the fish somewhere else. Don't put water in until it dries out. When the soil cracks, hoe or plow it so it is broken up fine. Put in animal manure, then fill it with water. It's not necessary to change the water unless it smells bad. In fact, it's good if the water isn't changed, because the algae that has grown will be lost. It's also preferable for the water to be dirty, because the fish will have a source for their food.
3. Put the fish back in.
4. Tilapia and carp can be put together, but it's better to separate their ponds. If they are together, they will crowd each other, especially when they multiply. It's like people, who when they fill up a house or room, lack breathing space.

We hear people say that tilapia turn into rats, but nobody has actually seen it. In the books that fish experts have made, they don't say anything like that. If we make inquiries, we'll find out that many people have tried it, thereby improving their lives. They have no more need to buy viand, at least as far as fish is concerned. They can also sell the fish.

If you are interested, ask our Field Technician to get some in Trinidad or else request some from someone who has a fishpond.

## FREE MILK

Do we want to drink good milk? If so, what can be done so we don't have to buy all the milk the family needs? Is there perhaps some animal that can be milked in our place?

If we answer this question, maybe there is. Maybe one or two goats, cows and carabaos can be seen at a neighbor's or relative's place. Now these same animals are the source of the milk that we buy in all the little sari-sari stores. The only difficulty is that we don't make the effort to discover how to get the milk from the animals. But the truth of the matter is that goats and other animals can be taught to give their milk to us when they give birth. It might be a good idea for those who have animals to agree and make arrangements to allow their animals to be milked, and that they allow their thoughts to dwell on the many advantages. Try it if possible.

### Time When An Animal Can Be Milked

A person can get milk from a goat or other animal starting from when it has just given birth. There's no need to worry about milk for the kid or calf, because its mother has more than enough milk anyway. Just make sure it has lots to eat and drink.

The length of an animal's milking period is three or ten months, depending on the kind of animal being milked. If it becomes pregnant again, it will stop giving milk three months before giving birth.

## How Many Animals Are Needed

Two or three goats which are giving birth are sufficient to give milk for one family. Two cows or carabaos will also suffice. It would be a good idea to add to the animals that are trained, so that they can take each other's places, and the milk supply will be regular. The milk can also be sold for a profit.

## Directions for Milking an Animal

A person admittedly needs patience to train an animal so it becomes tame, because it will be afraid at first, when its teats are grabbed. But when they get used to it, we won't have any trouble. They'll soon learn to like it, if we give them something to eat while we squeeze their teats.

Let's try to learn these directions. The drawings illustrating what the written part says can be found on pages 38-41.

1. Fasten the animal or confine its movements. Get ready a clean bucket, cloth, soap and warm water. Wash your hands, wash the teats of the animal, and then dry them with the cloth. Make sure also that the animal's body is clean so the milk won't get dirty.
2. Slowly take hold of the base of the teat, and bring together the thumb and forefinger. Discard the first milk, because it's dirty. Do not do it forcefully, because it might hurt the animal. Have the other fingers follow one at a time until the little finger.

3. Release the teat. Then grasp it again and press upward so the milk can get into the bottom of the teat. Bring the fingers together again like at first.
4. Finally, slowly squeeze the teat, starting at the base and continuing down to the tip, so that the last milk, which is the richest, comes out. The other teats are milked the same way in their turn.