

EKWAN A WONAM SO NYA DUABA A AFIFRI. ***(HOW TO RAISE SEEDLINGS – Nursery Practices).***

Nnianim – (Introduction.)

Nnua a wodua fra cocoa mu ye adeye a efri tete. Cocoa akuafoo nya mu mfasoo pii. Enyunu a nnua binom de ma cocoa nnua na ma etumi nyini yie na bere koro noaa mu no, kuani no nya mfasoo ahoroo.

(A) Mfasuo a wonhu no tee.

Nnua no ma nyunu ba cocoa no so na ebo ho ban fri awia, mframa ne nsusan ho.

- a. Nnua no kata asaase nani na emma so nye hyehyeehye dodo. Wei ma cocoa dua no nhini tumi tim yie ma enyini;
- b. Eboa ma mframa ne nsusan ntumi mpia asaase no so dotie nko;
- c. Eboa ma dotie a ewo asanie so no ampia aankoo;
- d. Ema wiem tebea a ewo mantamu ho no kari pe;
- e. Nnuanennuro a ewo asaase no mu tumi foro ko dua no mu fa ne nhini no mu.

(B) Mfasuo a wohu na tee:

- a. Ema wonya asetena mu ahiadee ahoroo;
- b. Wotumi ton nya sika fri mu;
- c. Wotumi koton no amanone ma won a woton no nya mfasooo.

Nnipa nya aduane ne nnuro fri mu na mmoa nso nya wura we wo mu. Wotumi nya adansie niema nso fri mu na ema egya a yeso ye aduane. Wobetumi atwa dua no aye akonya ne nneema afoforoo.

Wobetumi ato nnuaba a afifri no bi afri nnuaba korabea, ente saa nso a, wobetumi anya nnuaba a eno ankasa fifri bere a aba nate agu fam no.

Wobetumi asesa aba a atete agu fam no na wagu no tee wo afuo mu anaa se woagu no baabi na enyin a watutu akoteo.

Senea nnua ankasa tumi fifi.

Nnua dodoo noaa so aba na enyini a, eno ara poro gu fam. Enam se aba dodo noannkogu asaase pa mu nti, pii ntaa nye yie.

- Senea ebeye na aba a etete gu fam no dodo befifi nti, eho hia se wofuntum a asaase no prapra so wira nyinaa ansa aba naif asie ate. Eba saa a, aba a eti no gu asaase no mu tee. Afie enya fifri a, dodo mu na bo ho ban fri egya hyehyie ne mmoa a wonenam ho kosi se ebenyin.

Senea wo ankasa betumi anya aba a afifri

Wobetumi a gu aba wo aduaba siesiebea a wommoo ka pii. Eho na wogu aba ma efifri na eno akyi no, woatutu akodua anaa woakoteo.

This information sheet is an output from the project: Shortened bush-fallow rotations for sustainable livelihoods in Ghana (R7446, Natural Resources Systems Research Programme), funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID. This information sheet is produced by the Forestry Research Institute of Ghana (FORIG) in collaboration with the University of Wales, Bangor, UK.

Beae a wosiesie aba ma efifri no gu ahoroo. Ebi ne:

1. Aba siesiebea a woye no bere tiaa bi
2. Aba siesiebea a ewo ho daa.

Mienu yi mu biao betumi aye ketewa anaase nea eso a nnua beye mpempem pii wo mu. Nea wode nnua no beye na ebekyere dodo a ehia se wogu. Obi a orepe nnua kakraa bi de aduadua na fie no nhia dodoo se nea orebeton nnua a afifri no.

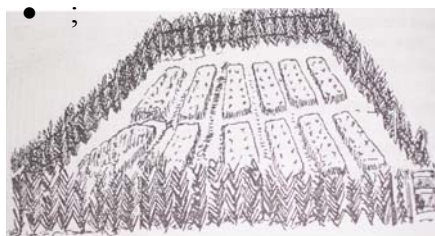
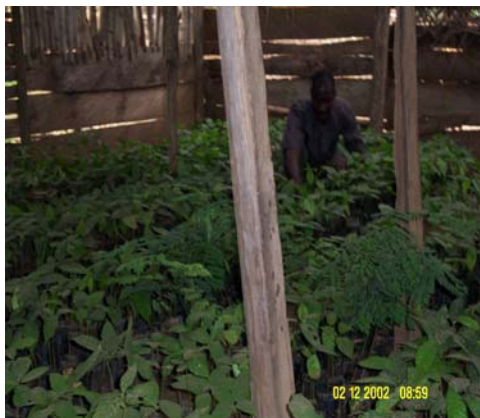
Senea wobeye aduaba siesiebea no

(a) Faako a wobeye no

Se wope se wosiesie aduaba na wogu ma efifri a:

- Ehia se wohwehwe faako a nsuo ho nye den;
- Ese se awia bo asaase no so. Hwehwe baabi a nsuo ntaataa asaase no so;
- Ese se asaase no ye papa, wobetumi de oyeasaaseyie anaa compost agu so;
- Ese se wogye aduaba siesiebea no ho ban na mmoa aankosei no;

Aduaba siesiebea a woagyeho ban



Fencing nursery to keep out stray animals.

- Ense se aduaba siesiebea ho ko ye den.

(b) Senea wobo nkofie

- Tutu fam na funtum asaase nani na bo kofie a ne tre beye se meter baako ne kakra. Woye no saa a, ebema watumi de wo nan asisi nkyenkyen agugu so asuo a wontiatia kofie no so;
- Nea ebeye na nsuo atumi atene afi kofie no so nti, ma kofie no mpagya beye se centimetre du (10) deeko duonu (20). Fa abosea fri kofie nase na fa ahwea pa se dotie fra gu so. Ahwea no bema nsuo atumi asiane ako asaase no mu na ema nnua a afifi foforo no tuo ye mmere.

© Senea wosi ye roba bag a wogu aduaba wo mu

- Fra dotie, anhwea ne compost;
- Tutu poly bag tuntum no mu ntokuru na fa dotie a woafra no hye no ma. Tintim so ma enoaa ntumi nnyinaho;
- Se cocoa na worebedua a, fa poly bag a emu wa (18cm x 25cm) anaa (7in x 10in);
- Keka poly bag nase a aye feafea no to ho na woatumi de asisi ho ahyehye;

Obi a ode dotee regu roba bag mu.



Filling of polythene bags with top soil.



Filling of poly bags with top soil.

- Afie hyehye poly bag no santen bebre na gya kwan a wobetumi afa mu agugu so nsuo adodo mu wo ntamu;

Roba bag a yahyehyebi no san ten



Polyethelene bags arranged in rows with spaces to facilitate watering. 11.01.2003 17:29

(d) Duaba no dua

- Paw nua a edi mu na ewo ahooden na se eso aba ma enyini a, watete naba no. Nntwen mma no nte nngu fam na wasesa.
- Wosesa aba no ara pe a, hohoro ho yie;
- Dua aba no wo kofie so ntempa ara;
- Gya kwan (10 x 15cm) woebiaa ntam. Wobetumi adua aba no wo roba kotokuo mu nso;
- Se aduaba no ye den dodo a fag u nsuo mu ma adee nkye so ansaa na wadua;
- Ense se wode aduaba no hye fam ma eko akyiri dodo. Amena no tenten nyinaa beye se aduaba no tenten mmoho mienu;
- Ese se wogugu duabo a wodua no roba kotokuo mu tee no so yie, na wode sisi nyunu mu;
- Se woodua cocoa a, di kan fo dote a ewo roba no mu no;
- Fa cocoa aba baako dua dotee a ewo roba mu. Ma ano feafea no nhwe soro, na ma enko fam



Broadcasting seed on a germination bed.

beye se centimetre mienu.

Nnuaba a wodeedua roba bag mu

Obi a oopete aba wo kofie so

- Se wontumi nhu faako a eye feafea no yie a, fan e tentene mu hye fam. Mma fa biao nnhwe soro;
- Hwe se wonnua aba a afifri deda;
- Ese se wode esre gugu aba a wodua no nkofie so no so na wogu so nsuo paa. Esre no bepuru aye asaase no yie;
- Se woobo kofie adua cocoa a, ma ne soroko anaa ne koron nye centimetre du mienu ne fa (12.5cm) na ne tre nye centimetre 120 (120cm) anaa anamon nnan;
- Gya anamon mienu wo nkofie no ntam;
- Ma kofie no so nye pepeepe;
- Fa ahuma susu line a ekwan 60cm deda biao ntam wo kofie biao so;
- dua cocoa aba no wo line a woasa no mu. Gya kwan 5cm wo aba biao ntam;

- Wobetumi nso apete aba no wo kofie a woahye da asiesie de dote pa agu ani so;
- Bo apata wo nkofie no so;



Apata a yabo a si cocoa nnuaba a yaagu wo roba bag mu.



Shading for potted seedlings and transplant beds.

- Aanye yie koraa no, gu so nsuo mprenu da biao;

(e) Duaba no tutu

- Se dua no nya ahaban papa beye se mmienu bi a, ekyere se wobetumi atu akodua wo a fuo mu;
- Gugu afifidee no so ansa na watutu akodua;
- Se roba mu na woguu aba no a, di kan gu nsuo beye se



nnonhwere mmienu ansa na watutu akodua;

- Hwē yie sē woankwoa ne hini no mu bere a woretutu no;
- Sē dua no nhini no mu akoa a, entu nnkodua, efri sē ebenyin aye dua a enni ahoden;
- Worebefi aseē a tutu nnua no akodua a, tutu apata a wobō de maa nnua no nwini no;
- Fa dua tu dotēē a ewō roba biaaa mu tokuru na fa dua si mu. Hwē yie na mammu ne nhini no bi anaa woannkoa mu;
- Fa wo nsateaa tintim dua nase bokoo nanso hwē ma no nsi ho den;
- Tutu amena wō nkofie no so na fa nnua no sisi mu. Ma nkwan nteda ntamu;

(f) Eso guguo

- Ese sē wotaa gugu nnuaba a ewō nkofie ne roba mu no so na dotēē no mu aanye weseē dodo;
- Ese sē wode nsuo petepete nnua a afifi a wonnya nnuaae no so;

Roba bag mu nnuaba a wooguso nsuo.

- wodua dua no foforo a, gu so nsuo anopa ne anyummere bosome mmienu a edi kan no mu. Eno akyi no, ope bere mu nkoa na ehia sē wogugu so;
- sē dua nyin ma ne tenten du beye sē 50cm a, afie wobetumi atu akodua no faako a wopese esi ankasa no;

(i) Senea wōhye nnua no denb

Atrimpow nti a yehye nnua den ne sē ebetumi a ye yie wō afuo mu. Ese sē wofri aseē hye nnua no den bere a aka beye sē bosome ma watu akodua wō afuo mu no:

- yi dua no fri nyunu ase;
- twitwa ne nhini no ho;
- te nsuo a wode gu so no so.

Dua nhini a wore twitwa ho



NNUA DUA – (Tree Planting)

Nnua a afifi ho adwumaye.

- Nnua a afifi foforo no ho nye den, na se ne nhini no ho da ho bere tiaa bi mpo a, ebetumi awu. Eno nti ehia se wobu ho ban denam emu a wodeso no yie.

(1) Nnua a wogu wo adeg mu (te se roba bag).

- E se se wotwitwa ahaban biao a enye fri duaba no nhini ho nawotwe mmienu ansa na wadua. Ente saa enso a, twitwa duaba no nhini biao a afri roba no mu aka fam fri ho. Fabribi a ano ye nam te
- Se apaso anaa nkrante namnam bi.



Obi a oretwitwa ahaban a bakusa

- Se dua a fifri foforo no ye senea erekusa no a, ye ntem twitwa ahahan a akusa no. Wobetumi a de apaso soronko a woaye ama saa dwuma no

anaa sekan biao a eenam. Twitwa

- ahahan no fa kesse noaa gu – nanso kae se bere biao no wobegya dua no ti;



Duaba a woatwa nhini no so

1. Se duaba no nyini dodo wo roba no mu a twitwa ne nhini ne nahaban no dodo noaa gu. Twa ne nhini no so wo faako a emu akoa no;
- Gugu duaba no so yie ansaa na wode afri baabi a woduaa no no;
- Ese se wokora dua a afifi foforo no so wo nyunu mu na wogugu so kakra;
- Ense se woma bere a eda duaba no tutu ne ne dua no ntem ye tenten pii.

mu. Hwe hu se wafuntum
asaase no yie.

(2) Duaba a wotutu fi nkofie mu

- Se wobetu dua a fifi deda no afi kofie mu a, ye no da a awia aammo kese. Di kan gugu kofie no so nsuo;
- Wotuu duaba noaa pe, tutu tokuro wo fam na fa atekye gumu na fa dua no si mu;
- Nnua ahoro bi wo ho a, wobetumi atwa ne nhini no so na afei watwa ne nkon mu no nso;
- Wobetumi adua nnuaba binom nso a wode ne saa ara bedua, kyere se wotu frii kofie no mu ara pen a woodua a wonye no hwee. Eho behia se wotwitwa nhaban no bi fri so;
- Se woodua aba a afifi no saa ara anaa se wobetwa so ne ne nhini no;
- ese se wode atekye ye ho na wode wura (te se kwadu ahahan) kata so;
- Kora duaba a watu deekote no wo nyunu mu ara kosi se wobedua;
- Bo mmoden se womma enkye pii na wodua duaba a afifi no. Mpen pii no, nnuaba a wodua no nkofie mu no mmo ka pii. Ema wonya duaba a afifi deda no dodo na ne tutu nso nnye den.

Duaba no dua

(1) Beae a wodedua no siesie

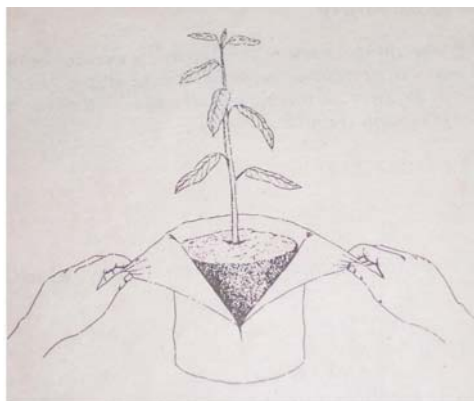
- Senea ebeye na duaba a woate no foforo no benya awia ne hyew a efata nti, do afuo no

(2) Fam tutu

- Asaase a emu awo dodo no mma kwan mma nsuo mfo asaase no. Eyi si nnuaba no nyin ho kwan. Kwati saa denam fam a wobetutu so;
- Ese se wotutu fam bere a waye krado se wobedua nnuaba no, na asaase no mu aanye wesee dodo;
- Ansa na wobedua duaba biao no, hwe hu se wayiyi beae a wobetutu fam adua wo ho no so wura nyinaa. Susu meter baako, ne tre ne ne tenten na tu amena no wo mu;
- Anye yie koraa no, ese se amena no mu do ye centimetre 40 na emu bae nso ye beye se centimetre 30;
- Boaboa dotee a wotu fri amena biao mu no wo ano.

(3) Duaba a afifi no dua (anaase ne te)

- Ese se wode duaba a afifi no hye nyunu ase fri nea woguu aba no de koduru faako a wobedua no;
- Wotutuu fam wieee ara pe no, ntwen mma awia nhye duaba a afifi no, ye ntem fa si amena no mu;
- Nea oredua no nkura abaa ketewa bi a ode bebubu dotee a akeka abom no mu ansa na waka agu amena no mu;
- Se woguu aduaba no wo roba mu a, ese se woyi roba no nyinaa fi ho to kyene ansaa na wadua;



Senea woyi roba bag no fri duaba no ho.

- Di kan fa dote pa gu amena no mu ansa na wode duaba no nhini a wonyiyii eho dotee no asi mu;
- Afei ka dotee a egu amena no nkyen no gu mu, na fa won an tintim so wō nkyenkyen. Ma ani dotee no nni kan nko amena no mu;
- Ese se woma deaee a nhini no ne dua mu no hyia no ne asaase nani ye ye anaase ewo nase pee;
- se wadi kan atwa duaba no ti ne ne nhini no so a, di kan fa dotee gu amena no mu. Ma dotee a ewo ani no nni kan nko amena no mu;
- afei fa wo nsa tu mu tokuro na fa duaba a afifi deda na dua mu;
- fa wo nsa tintim dotee no so;
- to w obo ase, bere biao a wode duaba no besi amena no mu ne bere a wode dotee regu mu no;
- se ebetumi a, fa dotee a wode oyeasaaseyie afra negu amena no mu, esieni se etumi boa ma dua no nyini yie.

(4) Bere a wadua awie no

- se nsuo anto a, wo ankasa gugu duaba no so wō ne dua akyi pee;
- fa ahahan gugu duaba nase. Eno ma dotee no mu dwo na eboa ma nsuo a ewo asaase no mu tena mu;
- bo nnuaba a watu asi foforo no ho ban fri mmoa a wonenam basabasa no ho;
- bo nnuaba no ho ban fri egya hyehyeeho;
- ese se wotaa dodo nnuaba a wadua no foforo no ho de kosi se ebetim. Aanye yie koraa no, dodo ho mprensa wō afi a edi kan no mu, mprenu won ea edi ho no mu.
- Hwe apaafoo a wobedo no so yie na wanse nnuaba a wadua no foforo no;
- Se ebeye yie a, fa oyeasaaseyie ka asaase no na taa gugu so nsuo na atumi anyini yie;
- Ne papa mu a, ankasa ese se wodua nnuaba nyinaa wō osutobere mu, esiane se nsuo ho nnye den saa bere no na saa bere no na asaase no afō yie.