

NOT FOR SALE.



MAZINGIRA BORA

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ENGLISH VERSION



www.tist.org

The International Small Group and Tree Planting Program (TIST)

An Environmental, Sustainable Development and Community Forestry Program.



Members of Ntugi Field Office in their office meeting.

In this Newsletter . . .

- ✓ Building Leadership Capacity Through Rotational Leadership.
- ✓ How to collect seeds.
- ✓ What TIST has achieved so far.
- ✓ New Tree Spacing Guide.

www.tist.org

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HOW TO COLLECT SEEDS.

TIST farmers have been sharing best practices in various forums such as Node trainings, In-house trainings and seminars on how to select and collect seeds. We have also shared best practices on the best tree species to plant in our fields. This article aims to add more knowledge on the best practices in regard to seed selection and collections as well as treatment. TIST participant are encouraged to put forward their inputs on how to improve such best practices.

1. Which tree species should we grow in our area?

The best ones are those growing naturally in the area. Select ones that meet your needs. TIST particularly encourages



A TIST member preparing a tree nursery.

and fast growing. Good trees for fodder should be fast-growing, many branches with multiple stems, and fast growing leaves with the ability to recover after being pruned. Good fruit trees should

- leads to poorer quality seeds.
- Avoid unproductive trees and ones with a bad shape.
- It is better to choose a tree in the middle of a healthy group of trees of the same species. Seeds will be higher quality from trees with flowers that are spread out rather than packed closely together.
- The exact type of tree depends on what you want to use the tree for. For example, good trees for timber are straight, few branches

fruit and indigenous trees, and others that will remain in the ground for 20 years or more.

2. Are all trees good?

Not necessarily! Some may be difficult to control, be poisonous to your animals or use too much water. Choose ones you know will benefit your area.

3. Do trees produce seeds every year?

Most trees do, but observe your local trees to be sure. Some may only produce good quality seeds every 2-3 years.

4. Which is a good mother tree to collect seeds from?

- Collect seeds from healthy trees that are good seed producers.
- Avoid isolated trees. In this case the seed is likely to have been self-pollinated which

obviously have good quantities of healthy fruit!

- Try to choose seeds from a tree growing at the same altitude and soil type as where you want to plant.
- Choose a mature tree, not a young one.

5. When do we collect the seeds?

- Learn the time of the year when the seeds are ripe.
- Ask other local people or observe the tree yourself.
- Sometimes seeds are ripe when the fruit or pods change color, become dry, or break easily from the branch.
- Most seeds are ready for collection when they fall from the tree naturally.

6. How do we collect the seeds?

- It is helpful to clear the area around the



Tree Nursery with mixed seedlings species.

bottom of the tree first. Many seeds can be collected from the ground. Inspect the seeds for insect damage.

- The tree can be climbed to collect the seeds, but take care!
- Some fruit dry, open and disperse their seeds without falling to the ground. These are hard to collect if the seeds are small. Collect the fruit or pods after they are ripe but before they have split or fallen to the ground. Then dry the fruit or pod in a clean, sheltered place to obtain the seeds.
- Some seeds can be knocked from the tree with a long stick.
- Try putting a sheet under the tree and gently shaking the tree.
- For tall trees a simple tool can be made by attached one end of a pair of shears to a long, strong stick. The other handle can be attached to a rope.
- Note that some seed species cannot be collected from the ground and have to be collected as *wildlings*. These are newly germinated seedlings found growing under mature trees. These can be transplanted to pots in your nursery. This is often the best method for trees that are hard to grow in a nursery or whose seeds are hard to collect.
- All seeds must be removed from their fruit or pods. This can be done by hand, or putting the fruit/pod in the sun and waiting for it to dry and split.

7. How can we tell if the seed is good?

- Firstly look at the seed. Discard ones that

are smaller, lighter or a different color than the others. Some may be damaged by insects.

- For some hard-coated species floating in water is a good test. Normally the good seed sinks and the bad seed floats.
- You can do a simple germination test. Take a small counted number of seeds (20-100). Do any pre-treatment needed. Put the seeds on a damp cloth in a bowl. Cover with another fold of the cloth, moisten it thoroughly and put in a warm (not hot) place. Check the seeds daily for signs of germination and keep the cloth moist. When germination begins keep a record of the day and number. The test usually lasts about two weeks depending on the species. Germination of over 50% means you have good seed. Small-seeded species having only 5% germination are still worth keeping.

8. Do we plant or store the seeds?

- Some seeds do not store and should be planted straight away (especially soft, fleshy seeds, fruit tree seeds or seeds with high oil content).
- For seeds with harder coats the basic rule is to keep the seed clean, dry and cool.
- Seeds should be removed from the fruit/ cone and dried thoroughly. To dry the seeds put them in the sun for 2-3 days.
- Storing in a paper bag or metal container out of the sun is good (avoid plastic bags as this makes the seed sweat and rot). Make sure the container is clean and airtight.



- Label the container with the name of the seeds and the collection date.
- Remember that the germination ability of the seeds will decrease with time. If seeds have been stored for too long they may expire.

9. Do all seeds germinate?

The percentage of seeds which germinate varies greatly between species. Some seeds require some form of pre-treatment.

10. What kind of pre-treatment might be needed?

- If the seeds have a very small or thin coat often no treatment will be needed.
- Seeds that have thick coats will need some form of pre-treatment. Some need to have their seed coat cracked with a hammer or a stone. Seeds should be planted immediately after cracking.
- Some seeds just require a small cut in the seed coat to help water infiltrate (nicking). Do not cut the part that was attached to the pod or capsule as this part contains the baby plant.
- Others need to be soaked in mild acidic solutions for 5-20 mins before sowing.
- Another method for hard-coated seeds is to boil them in water for 5-10 minute. Then put the seeds in cool water. This weakens the coat and helps water to enter.
- Some seeds can be soaked in normal water for 12-24 hours.
- All seeds, once pre-treated, need to be planted straight away.

11. How do we plant the seeds?

- Some seeds that germinate readily can be sown directly into the field or into pots. Species that require special conditions to germinate are sown into a seedbed first.
- The time taken for germination depends on the seed type, the temperature, the amount of water available and the age of the seed.
- Generally sowing is done just before the rainy season starts.
- As a general guide, for direct sowing seeds should be planted at a depth two to three times their diameter and should be covered firmly with soil. The soil should then be kept moist.
- Details on seedbeds are to follow.

12. Do seedlings grow only from seeds?

Some tree species produce root suckers (young plants growing from the mother plant's roots). These can be cut and transplanted. Cuttings can be taken of a young tree branch with at least three nodes or buds. Choose a long, healthy branch and make a clean, angled cut. Strip off the leaves. Plant the cutting into soil at least two nodal lengths deep, with at least one exposed. Keep it watered until sprouting occurs. Seedlings grown in this way will have the same characteristics as the parent tree and can be useful for making sure a productive fruit tree is grown.

TIST: Building Leadership Capacity Through Rotational Leadership.

What is rotational leadership?

Rotational leadership is where each group member takes it in turn to lead and co-lead the group meeting. There is no one single leader. There is a new leader and co-leader for each weekly meeting. The responsibility is equally shared amongst all group members.

Why rotational leadership?

Each person has different ways of leading, and each person has different gifts. Rotating the leadership means group members can all learn from each other about leadership.

If everyone is supportive and encouraging, even shy group members will have the chance to grow in confidence and leadership abilities. We are able to learn something from everyone.

Rotating leadership also reduces the stress of one person being responsible all the time. Because the responsibility is equally shared, no one person



Members of TIST Small Groups working together. TIST encourages it's members to serve one another.



should be overly burdened or tired by the job.

Rotating the leadership means there will be fewer problems if one person likes to dominate the conversations and be in charge all the time. Each person will have his / her own chance to lead the meeting.

What you should do when practicing rotational leadership?

- Begin rotating leadership as soon as possible.
- At the end of each meeting decide who will be a leader and co-leader next time.
- Everyone should get a chance to lead and co-lead.
- If a group member does not want to lead, or is shy, the group can let him or her watch others lead first. Then they can co-lead before leading next time.
- Pass any teaching materials on to the next leader.
- Remember to wait for people to speak after asking a question.

What makes a good servant leader?

- ✓ The leader should be humble, patient, accepting and honest.
- ✓ The leader should show the same acceptance and respect for every group member, regardless of what they do outside the group.
- ✓ The leader should speak very little. He or she should encourage all members to share ideas and have the chance to speak.
- ✓ Leaders should make sure they properly listen to the group members. Encourage people when they have made a contribution.
- ✓ Don't pretend you know all the answers!
- ✓ Even if you do know the answer, it is better to let the group discuss the question themselves. If someone asks a question, offer it to the rest of the group to discuss.
- ✓ Try to recognize the gifts that each person has, and to encourage them in the things they do well.
- ✓ Accept people and statements without criticism or judgment.
- ✓ Acknowledge and demonstrate respect for the person with whom you may not agree.
- ✓ Don't debate! Acknowledge even the most unusual statement with: "That's an interesting view. Does anyone else have

any thoughts on that?" Throw it back to the group so others may contribute.

- ✓ Remember to share your own stories, strength and weaknesses with the group. An honest leader makes others feel comfortable to share themselves.



Members of PAA - A TIST Best Small Group at their common tree nursery.

TIST Kenya Updates: What We Have Achieved.

TIST Kenya continues to update our Small Group participants every month on the achievements we have made together. This data changes every day as new groups are recruited and more trees and seedling are counted or rather quantified. As at January 8th 2007, TIST Kenya had recruited 3,529 Small Groups in Kenya. Trees have been quantified so far numbers 3,553,030 as well as 4,030,121 seedlings.

This information is available in our website www.tist.org. TIST participants can reach us via postal address 1508 Nanyuki or send an SMS 0722 -68 62 67 (sms only). Our team will always be at your service.

The above positives changes have been reflected in all the Field Offices as shown here under;

Chugu Field Office.

	Jan. 2008.	Dec. 2007	Nov. 2007
Number of Groups	853	788	788
Number of Trees	1,509,605	1,450,951	1,392,170
Number of seedlings	1,484,110	1,437,965	1,371,130

Areas covered. Imenti North, Imenti South, Meru Central, Meru South, Tharaka.



Wendo (Formerly Meru Central) Field Office.

	Jan. 2008	Dec. 2007	Nov. 2007
Number of Groups	393	393	393
Number of Trees	413,141	412,260	412,397
Number of seedlings	524,713	524,713	527,187

Areas covered. Imenti North, Imenti South, Meru Central, Meru South,

Kinyaritha Field Office.

	Jan. 2008	Dec. 2007	Nov.2007
Number of Groups	676	669	560
Number of Trees	465,861	452,264	430,710
Number of seedlings	461,219	452,740	452,763

Areas covered. Tigania, Meru North, Igembe

Ntugi Field Office.

	Jan. 2008	Dec. 2007	Nov. 2007
Number of Groups	791	779	761
Number of Trees	610,459	574,584	544,912
Number of seedlings	646,473	646,473	590,042

Areas covered. Imenti Central , Imenti North, Isiolo,

Narumoro Field Office.

	Jan. 2008	Dec. 2007	Nov. 2007
Number of Groups	574	542	510
Number of Trees	474,037	433,037	377,098
Number of seedlings	723,793	693,791	700,598

Areas covered: Kieni East, West division, Mathira, Laikipia East (Ndaiga)

Lamulia Field Office.

	Jan. 2008	Dec. 2007	Nov. 2007
Number of Groups	227	227	227
Number of Trees	63,244	63,244	61,949
Number of seedlings	196,972	186,972	194,238

Areas covered. Laikipia East – Lamuria, Sweetwaters, Mwiyo, Ngoro Theru, Thome, Matanya, Rui,ri,

NEW TREE SPACING GUIDE

Why 6ft' x 6 ft' is the best spacing

TIST has been tracking tree baseline and putting data over the past three years about tree spacing. We have found that the tree and the groves where the farmers plant the trees will grow the best only if the spacing between trees is two meters or more. Some farmers have been using this spacing for many years, and their trees have been growing much better and larger than trees planted at one meter.

We have seen that trees planted at one meter grow slower, are smaller, and most importantly, do not sequester a lot of carbon. The main goal of TIST and our farmers is to plant trees to capture carbon and improve the land of the farmer. Our goal is not to plant trees very close together that are going to be harvested and cut down soon for utility poles. TIST and the farmers who plant at two meters have seen the good results of that spacing. Trees planted at two meters or more do not have to fight for water and minerals in the ground.

It is important for all TIST farmers to know that quantifiers will only be counting trees planted at two meters or more. This spacing still allows farmers to plant up to 1,000 trees on a hectare of land! This also means that the trees planted farther apart will grow stronger and yield more fruit and nuts.

TIST Kenya invites Small Groups members to prepare and submit their articles for publishing in this Newsletter. Such articles should feature activities carried out by your Small Group, Achievements, Success, Challenges and opportunities.

We would like to hear from you the benefits you have achieved since joining TIST and areas that you would like us improve.

To reach us, you can contact **Joshua - 0724 - 255369, Martin -0722-846501.** Email address joshuahirungu@tist.org, martinweru@tist.org.

You may also contact our Field Offices Staffs in Narumoro, Lamulia, Ntugi, Kinyaritha, Chugu, Wendo and Kirimara. We will be at your service.

Thank you.

Embrace peace, save Kenya.



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KIKUYU VERSION



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The International Small Group and Tree Planting Program (TIST)
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A member a wabici ya Ntugi mari mucemano-ini wao

- ✓ Kwagiria utongoria kuhitukira utongoria wa guthiururukana.
- ✓ Uria TIST itheremete gukinyiria hau turi.
- ✓ Uria ungiungania mbegu.
- ✓ Menya makiria uria utiganu mweru wa kuhanda miti.



URIA UNGIUNGANIA MBEGU

Arimi a TIST nimakoretwo makigayana mitaratara miega kuhitukira kurutana nyumba kwa nyumba na themina njira cia guchagura na kungania mbegu. Notuthomithanitie iguru ria mithemba ya miti iria yagiri-irwo kuhandwo. niukumenyamakiria iguru ria ungania wa mbegu na guchichagura orohamwe na guchihariria.



Mumemba wa TIST akihariria nuthari ya miti

1. Muthemba wa muti uria wagiri-ire gukurio gicigo kina?

Iria miega ni iria irekuria icigoini ici. Chagura umwe uria urina urahingia mabataro maku. TIST yendaga makiria miti ya unduire naya matunda na iria ingi-kara makiria ma miaka 20

2. Miti yothe ni miega?

To nginya! Imwe no ikorwo na hinya kuminyerera, no ikorwo itari miagiriru kuri nyamu ciaku kana ihuthagire mai maingi. Chagura uria urina uguni kuri itura riaku.

3. Miti ni irutaga mbegu oromwaka?

Miti miingi ni irutaga mbegu. No utwirie miti ya gicigo giaku nigetha umenye. Miti imwe no irutire mbegu njega kahindaini ka miaka 2-3

4. Muti mwega wakuruta mbegu ni uriku?

- Ungani akuma kuri muti uri na ugima mwega..
- Thenga makiria miti iria irihandu hamwe. Miti ino noikorwo itari na mbegu njega.
- Ndugachagure miti iria itaciara kana iria itaikaire wega.
- Niwega guchagura mbegu kuma kuri gikundi kia miti yamuthemba umwe. Mbegu igukurwo iri njega makiria kuma kuri miti

iria ina mahua mataganu gukura maria manyitanu

- Muthemba wa muti kuringanana na uria urenda kuhuthira muti waku. Ta ngerekano, miti miega ya mbau ni mirungaru, honge nini na ikuraga na ihenya. No miti ya kurio ni mahiu yagiriire gukorwo na mahonge maingi, ikure naihenya na hamwe na mathamburi maingi. Muti wa matunda wagiriie gukorwo na matunda mena hinya na maingi.
- Geria guchagura mbegu kuma kuri muti tirini ta uria urathie kuhanda.
- Chagura muti mukuru no ti muchachana.

5. Niri tunganagia mbegu?

- Menya riria mbegu ciri njiru.
- Ori andu a itura kana wirorere wee mwene.
- Mahinda mamwe mbegu ikoragwo irinjega riria makoni machenjia rangi, moma kana magatwika naihenya.
- Mbegu nyingi ikoragro cirri nginyu cia kunganio riria cieguithia cionyene.

6. Tunganagia mbegu atia?

- Theria haria mbegu iri. Mbegu nyingi no ciunganio kuma thi. Rora kana cirri an tugunyu..
- No uhaibe muti gucharua mbegu, no wimenerere.
- Matunda mamwe momaga, na magathanduka magaitanga mbegu mo mene matekugua kuma muti-ini. Mbegu ici ciri hinyamuno kuoeka angikorwo ni nini makiria. Tuaga matunda mbere ya momite uchoke umomithie handu hatheru.
- No utue matunda ukihuthira muti muraya.
- No ware kiandarua na uinai-nie muti waku.
- No woherere kahiu kana magathi muti-ini na uhuthire gutua mbegu ciaku. Muthia ucio ungi no woherere mukanda.
- Ririkana ati mbegu imwe itingiunganio thi no – no cioyo ta tumimera tunini turia twinyiragirira mutiini nathutha ucio ututhamie nginya haria urahanda. Inoni njira njegamuno ya kuhanda miti iria ikoragwo na hinya muno gukura tutaini oronakana mbegu iria ikoragro hinya muho kungania.
- Mbegu ciothe no nginya cirutwo kuma kuri itundaini. No wike uu na njira ya kumithia itunda riaku riuu-ini.

**7. Tungimenya atia ati mbegu ni njega?**

- Wambere roar mbegu ciaku. Chagura iria nini, huthu orona kana iria cirri na rangi mutiganu na iria ingi.
- Mbegu iria ikoragwo na ngothi nyumu no cimanyeke na kurera mai-ini mbegu njega yagiriire gutonyerera mai-ini nayo iria iriri njega irere.
- No ugerie gukuria mbegu ciaku. Oya tubegu tunini ta kuma 20-100 uci-ikire gitambayaini kihuhu thi-inie wa kamukebe. Humbira na gatambaya kangi kahehu na uige kamukebekau handu hari na urugari munini. Roraga mbegu ciaku oro muthenya umenye kana nociramera. Orouria iramera, andikaga muthenya hamwe na mbegu iria iramera muthenya ucio. Igeria rir rioyaga kahinda ka wiki igiri kuringana na mithemba ya mbegu. Ungiona mbegu makiria ma 50% ikurite, nitakuga ati mbegu icio ni njega. Mbegu iria ikoragroiri nini makiria no cikorwo na 5% na nikuga ati oronacio ni njega.

8. Tuhande kana tuige mbegu icio?

- Mbegu imwe itihandagwo na ciagiri-ire kuhandwo orokahinda kau (makiria mbegu iria huthu , mbegu cia miti ya matunda nambegu iria cirri mai maingi.)
- Mbegu iria iri gikothi kiumu, undu uria mwega ni kumithia mbegu icio na guciga wega.
- Mbegu ciagiri-ire kurutwo hari itunda na ciumithio muno. Iga mbegu ciaku riuaini thiku 2-3 nigetha ciume.
- Kuiga karatathini kana mukebe wa chuma no ukorwo haraya na riuwa nowega. (ndukaige mukebeini wa "plastic" tondu nigitumaga mbegu cioro). Thingata ati mukebe waku ni muniaru wega.
- Andika mukebe waku ritwa riambegu na riria wonganirie.
- Ririkana ati umeru wa mbegu ciaku ukuringana na kahinda katria ukuiga mbegu ciaku. Kuiga mbegu kahinda karaya no gutume mbegu ciaku ithuke.

9. Mbegu ciothe nicikuraga?

Kumera kwa mbegu kuringanaga na muthemba wacio. Nikuri mbegu ciendaga kuhariririo na njira mithemba na mithemba nigetha cimere.

10. Ni kuhariririo kuriku kubatarikanaga?

- Angilkrwo mbegu iri na ngothi huthu gutiri uharirira urabatarikana.

- Mbegu iria iri na gikothi kiumu no cibatare kuharirio wega mbere ya kuhanda. Imwe cibataraga cibaturwo na nyundo kana ihiga. Wagiri-ire kukanda mbegu ici thutha wa guchibatara.
- Mbegu imwe cibataraga kamwatuka kanini gakuingiria mai. Ndugatinie kamukiha karia kameraga.
- Imwe cibataraga kurikio mutukanio-ini wa "mild acidic" kahinda ka ndagika 5-20 mbere ya kuhanda.
- Mbegu iria cirri na gikothi kiumu no uchitherukue ta ndagika 5-10 na thutha ucige mai-ini mahehe. Gwika uu kuhuthagia ngithi na gugatuma mai mone gwakuingirira.
- Imwe no cirikio mai-ini mathaa 12-24.
- Handa mbegu ciaku thutha wa guchihariria.



Nathari ya miti ina mihiriga ya miti ngurani

11. Tuhandaga mbegu atia?

- Begu iria ci-imeragia cio nyene cihandagwo orio. Iria ibataraga umenyereri makiria ciambaga kuhandwo tutaini.
- Kumera kwa mbegu kuringanaga na muthemba wa tiri, urugari, mai, na ukuru wa mbegu
- Maita maingi kuhandagwo mbere ya mbura yurite.
- Mbegu ciagiri-ire kuhandwo uriku wa maita matatu mayo na uchoke uchithike na tiri munini na uitiririe mai.
- Ndeto makiria ma tuta nicio ici.

12. Tumimera tukuraga kuma oro mbegu -ini?

Mithemba ime ya miti ikuraga ta hongwe iria ingitini na cihandwo
No utinie kahonge kamwe kari na tumabiri twiri. Charia kihonge kiria kiri na hinya na kiri na ugima mwega utinie kuma hau na utinie



mathango.thika kahonge gaku ugithika tomabiri twiri na utige kamwe karungii. Itagiriria mai nginya kahethuke.miti iria ihandagwo na njira ino ikoragwo na muhiano taw a nyina nano ukorwo na matund mega orota hari awarutitwo.

TIST: Kwagiria utongoria kuhitukira utongoria wa guthiururukana.

Utongoria wa guthiururukana ni kii?

Utongoria uyu ni riria oro mundu wa gikundu atongoragia gwakahinda na thutha mundu ungi akoerera. Gukoragwo na mutongoria wa oro michemano ya oro wiki. Uigiririki ugayanagwo hari andu othe a gikundi kui.



Amember TIST Small Groups makiruta wira hamwe

Gitumi gia guchagura utongoria uyu ni kii?

Oro mundu ari iheo ciake mwanya na njira ciake mwanya cia gutongoria. Gutongoria uu gutumaga oro mundua athome kuma kuri uria ungi iguru ria utongoria.

Mundu wothe angikorwo arateithiriria nigutumaga mundu uria ari na guoya agie na umiriru na kogwo mundu agathoma kindu makiria kuma kuri uria ungi

Utongoria uyu niunyihagiria mundu mechiria maingi angikorwo niwe utongoragia mahinda mothe tondu andu othe marutaga wira na mahinda na gutiri mundu ukugia na murigo.

Utongoria uyu niuninaga mathina tondu oro mundu arikoragwo na mahindamake ma gutongoria muchemano.

Wagiri-ire gwika atia hindi iria uratongoria?

- Ambia naihenya utauria kwahoteka.

- Muthia wa oro muchemano, menyai nima magatongoria ihinda riu ringi.
- Mundo orowothe no nginya agie na mahinda magutongoria.
- Angikorwo mundu arina guoya na ndarenda gutongoria, agiri-irwo ambe ererere achoke atwike munini wa mutongoria na thutha achoke atongorie
- Nengera indo iria ungikorwo nacio cia utongoria kuri mutongoria ucio ungi
- Ririkana gweterera andu machokie thutha wa kuria kiuri

Nikii Githondekaga mutongori ngombo mwega?

- ✓ Mutongoria akorwo ari mwinyihia, mukiririria na mwihokeku
- ✓ Atongoria magiriire mahe gitio andu othe agikundi gutakuringana uria makoragwo nja ya michemano.
- ✓ Atongoria magiri-ire kwaragia manini muno.
- ✓ Agiri-ire aheage andu othe kamweke ka kuariana kuruta mawoni
- ✓ Mathikagiririe muno uria aria angi mekuga na magatugiria aria angi riria maheana mawoni.
- ✓ Unangikorwo ni uii aja, niwega kuheaga aria angi kamweke ga guchokia na mundu angiuria kiuria niwega urie andu makiariririe.
- ✓ Geria kumenya makiria iheo iria mundu ari nacio nigetha iteithie andu angi.
- ✓ Amukura mawoni ma andu utegutua itua.
- ✓ Unagia gitio kuri mundu uri mutereiguithania.
- ✓ Ndukariririe; itikira woni wothe nginya uria utaroneka tauri wa bata nanjira teno "aah, ucio ni woni mwega muno, nikuri mundu ungi uri na woni ta ucio?" Chokia kiuria kiu kuri andu nigetha aronau machange maoni. Ririkana kugayana ngano, mahinya na mathina maku na andu a ikundi. Mutongoria mwinyihia atumaga andua cio angi maigue maigani-ire kuga undu orowothe.

Uria TIST itheremete gukinyiria hau turi.

TIST ni oro mweri ni-imenyithagia andu a ikundi kiriamagite oromweri. Maundu maingi meru nimonekaga oro mweri kuringana na uria miri iratarwo na uria angu makiria marathomithio. Gugikinyiria mweri 8 wa January 2008, TIST niya thomithitie ikundi 3,529 Kenya. Miti iria itaritwo



gukinyira riu ni 3,553,030 na tumimera 4,030,121.

Uhoro uyu no uwone website ino www.tist.org. Anyitaniri a TIST no maranirie na ithui kuhitukira ithanduku ria marua 1508 muchii wa Nanyuki kana matutumire ndumiriri nguhi kuri namba 0722 –68 62 67. (Ndumiriri nguhi tu) Turimutungatagira hingo ciothe.

Utheremu uyu twona haha iguru niwonanitia haha thi ta uria uri wabichini ciothe.

Wabichi ya Chugu.

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Uhoro uyu ni kuma: Laikipia East – Lamuria, Sweetwaters, Mwiyo, Ngoro Theru, Thome, Matanya, Ruri,

Menya makiria uria utiganu mweru wa kuhanda miti.

Nikii tugaga ati itiganu wa 6ft' x 6 ft' niguo mwega.

TIST ikoretwo igika uthuthuria wa miti makiria ma kahinda ka miaka itatu; namakiria iguru ria mithemaba ya miti. Nitwonete ati muti ukuraga wega kuria arimi mahanda na utiganu wa makiria ma mita igiri. Arimi aingi nimakoretwo makihuthira urimi uyu miaka mi-ingi muno na miti yao ikoretwo igikura wega gukira miti iria ihanditwo utiganu wa mita imwe.

Nitwonete ati miti iria ihandagwo na utiganu wa mita imwe ikuraga kahora, igakorwo iri minini na ndirutaga riera itheru ri-ingi. Kiroto kinene gia TIST orohamwe na arimi ni kuona ati nitwagia na riera riingi na twatheremia mugunda wa murimi. Kiroto gitu ti kuhanda miti ikuhaniri-irie muno na thutha ucio tuchoke tuteme ikingi. TIST hamwe na arimi aria mahandaga miti yao uraya wa mita igiri nimonete maciaro mega. Miti iria ihandagwo uraya wa mita 2 to nginya uruire mai na unoru uria uri tirini

Niwega arimi a TIST mamenye ati Atari a miti a TIST maritaraga miti iria ihanditwo uraya wa mita igiri kana makiria. Utiganu ugu ukuhotithia arimi kuhanda miti 1,000 hari gichunji gia acre imwe! Uu nitakuga ati, miti iria ihanditwo utiganu uyu igukura iri na hinya na iciare matunda maingi na mena hinya.



MAZINGIRA BORA



January 2008 Newsletter

www.tist.org

KIMERU VERSION

The International Small Group and Tree Planting Program (TIST)

An Environmental, Sustainable Development and Community Forestry Program.



A memba a wabici ya Ntugi mari mucemano-ini wao

Ndene ya gazeti iji.....

- ✓ Kugea Kiewa Kia utongeria kumania na utongeria bwa kithiuruko.
- ✓ Njira ya gutaara mbeu cia kumithia.
- ✓ Aria TIST ikinyite mwanka nandi.
- ✓ Njira injeru ya gugutongeria kiri gutaraniria kwa miti.



URIA UMBA GUTAARA MBEU CIA KWAANDA

Arimi ba TIST ibombaga kuritanana njira iria njega cia gutaara mbeu cia kumithia bari biuthuranone ta micemanione, uritanine buria buthithagirua nturere ciao na Seminene. Ibombite kinya kwiritana miti iria miega ya kwaanda miundene yao. Yerekeria ria topic iji ni ya gugutaara nkuruki njira ya kuthurania mbeu, gutaara na guciika bwega. Arimi bonthe ba TIST ibabwirite kwirana njira iria njeru cia kumba kubetithia na mbere.



Mumemba wa TIST akihariria nathari ya miti

1. Ni miti iriku tubwirite kwaanda gwetu?

Miti iria miega ni iria yumaga yongwa. Thuura miti iria iri na bata kirigwe. TIST niendaga miti ya matunda na miti ya kienyeji iria yumba gukura muthetune kuuma miaka 20 na nkuruki.

2. Miti yonthe ni imiega?

Aari . Imwe womba kuremwa niyo, ingi ni sumu kiri ndithia cietu kana nitumagira ruuji rurwingi. Thuura miti iria ukumenya iri na baita gikarone giaku.

3. Miti niciaraga mbeu o mwaka?

Miti iria mingi niciaraga indi tega miti iria iri ya kwenu. Miti imwe niciaraga mbeu kuuma miaka 2-3.

4. Ni muti juriku mwega jwa gutaara mbeu?

Oja mbeu kuma mutine juria ukwona juri na ugima bubwega na juria wiji ijuciaraga mbeu.

- Ukathuura muti juri junka. Muti ta juju jwomba kwithirwa juri na mbeu cia muthemba jumwe aki juti na urume na uka na jutumba gukura bwega.
- Ukathuura muti juria juticiaraga bwega kana juri na sura inthuku.
- Thuura mbeu iria iri gatugati ka miti imingi imithongi iria iri amwe na y a muthemba

jumwe. Mbeu ikethirwa iri injega cia mauga jaria jakunuki buru nkuruki na jaria jaikunjite.

- Mbeu iria njega ikaringana na ngugi iria ugatumira muti juu nayo, miti imiega ya mbau ithagira iri imitamburuku, iri na mpang'i inkai na iria ikuraga na mpwi. Miti imiega ya iria ria ndithia cietu ithagirwa ni iria ikuraga na mpwi, mpang'i inyingi, gukuria mabura na mpwi, na ikuumba kworia ironda na mpwi niuntu bwa guchawa. Miti imiega ya matunda nayo ni withire kwithirwa iri na matunda jamathongi.
- Geria gutaara mbeu ya miti yaku iria yumaga bwega guntu kuu muthetu jwa Muthemba juu ukaanda.
- Thuura muti jumukuru buru ti muchanchana.

5. Iri tubwirite gutaara mbeu?

- Menya igita ria mwaka riria ciithagirwa ikuri.
- Uria antu ba kuu kana utege gwengwa.
- Rimwe mbeu ciithagirwa igukura itunda riagaruka rangi, kana rioma kana riria rigukuka Riongwa kuuma mutine.
- Mbeu imwe ciithagirwa iri inkuuru ciagwa ciongwa kuuma mutine.

6. Twojaga mbeu atia?

- Ikwithagirwa kuri na utethio kwamba kutheria gitina kia muti mbere. Mbeu iria nyingi ciomba kwojwa nthi. Tega mbeu bwega itikethirwe iturangi ni tunyomoo.
- Womba gwitia muti ukothurania mbeu yaku indi wimenyerete.
- Matunda jamwe jomaga jagakunuka idi mbeu itigwe nthi. Mbeu iji iri inya kwoja mpindi ikethirwa iri inini. Oja itunda riagunda mbere ya ritirakunuka kana rigwa nthi. Umiria itunda riaku antu akunikiri kenda umbu kuthurania mpindi ciau. Mbeu imwe womba gutua mutine na njira ya gutumira muti jumuraja.
- Geria kwara gitambaa gitina kia muti na kujwinainia mpaara.
- Muti jukethirwa jurei womba kwogera makasi ruteere rumwe mutine jumuraaja juri na inya. Rutere rungi no uegere murigi.
- Mpindi cia miti imwe utiumba gucioja nthi nonga ciumite kithakene. Iji ciithagirwa ciumite gitina kia muti jumukuru. Mbeu iji no uthamirie nasarine yaku. Njira iji niyo njega kiri mbeu iria itumba kumithirua nasarine kana iria iri inya kwoja.



- Mpindi cionthe no mwanka iritwe ciume matundene. Iji ni iritwe na njara kana kwanika riuene ikoma na ikathukana.

7. Niatia tumba kumenya mbeu iria njega?

- Mbere amba utege mbeu. Athurana mbeu iria niini kana iria iri na rangi ya mwanya kiri ingi .Ciomba kwithirwa irigi ni tunyamu.
- Kiri mbeu iria iri na gikonde gikiumu,kwereria rujiine iku kwega. Mono iria njega igujaga nthi na iria nthuku ikerera
- Geria njira iji imputhu kenda umenya mbeu uria ikauma. Tara mpindi inkai (20-100). Ciikire gitambaene kiri na ruuji mpakurine. Kunikira na gitambaa kingi, kithirwe kiri na ruuji na umike antu ari na murutira (ti antu ari na mwanki) Tegaga mpindi iji o ntuku wone kethira ikambiria kuuma na wikagire gitambaa ruuji. Ciambiria kuuma andikaga iria ikuuma o ntuku.
Ciomba kujukia biomia biiri kuringana na muthemba jwa muti . Ikeja kuuma 50% menya iju ni mbeu injega. Miti iria iri mbeu iniini ikeja kuuma 5% kinyacio ni injega cia gwika.

8. Tubwirite kwaanda kana igwika mbeu?

- Mbeu imwe itibwirite gwikwa indi nikwaanda orio(mono iria mbinyu, matunda kana iria iri maguta)
- Mbeu iria iri gikonde gikiumu, mike antu atheru atina ruuji kana mwanki jumwingi.
- Mbeu nibwirite kuritwa itundene riacion na kuumua bwega. Kuumia mbeu ciike riuene ntuku ijiri(2) kana ithatu(3).
- Gwika mbeu karatasine kana mukebene jwa chuma bunka iti riuene gutithuki (ugeka karatasine ka nylon tontu igatumaga mbeu ithithina na ciora). Aria ugwikira no mwanka kwithirwe kutheri na kwiingi uria ruugo rutigukuruka.
- Aandika karatasi kaandiki riitwa ria mbeu na tariki urumatithie mukebene.
- Rikana uria mbeu ciumba kuuma kwa wingi kwomba kunyia waciika kagita gakaraaja.

9. Mbeu cionthe iciumaga?

Kuuma kwa mbeu kuringanaga na muthemba jwa muti. Mbeu imwe iciendaga kuthithirua bwega mbere.

10. Ikuthithirua kuriku kwendekanaga mbere?

- Mbeu iria niini kana iri na gikonde gitiumi itiendaga kuthithirua mbere ya kwaanda.
- Mbeu iria iri gikonde gikiumu iciendaga

kuthithirua mbere.Imwe iciendaga gikonde gikonyorwa na nondo kana iiga. Mbeu iji ibwirite kwaandwa orio ciakonyorwa.

- Mbeu imwe ciendaga gutemwa aniini gikondene kenda ruuji rutonya.Ugatema aria mbeu igwatene na gikonde tontu aja nio kanana kari.
- Imwe ciendaga kurindwa acindine ndagika ithano mwanka mirongo iiri mbere ya kwaandwa.
- Njira ingi kiri mberu iria iri gikonde gikiumu ikatherukua na ruuji rwa mwanki ndagika 5-10. Ucooke uciikie ruujine rwa mpio. Guku igutumaga gikonde kiaga inya na ruuji rugatonya.
- Mbeu imwe irindaga ruujine rwa kawaida mathaa 12-24.
- Mbeu ja iji ciathithua uju ibwirite kwaandwa orio.

**Nathari ya miti ina mihiriga ya miti ngurani****11. Niatia twandaga mbeu cietu?**

- Mbeu iria ciithagirwa ciumite tayari no ciandwe orio muundene kana nyongune. Miti iria yendaga kumenyeerwa na njira ya mwanya ciendaga kwaandwa nasarine mbere.
- Igita riria mbeu ijukagia ikiuma iringanaga na muthemba ya miti, murutira kana mpio ya guntu kuu, uria ruuji rwonoraga kuu na ukuru bwa mbeu.
- Monomono waandi bwambagiria ngai iri akui kwambiria.
- Kaingi mbeu iria ciumite ciendaga kwaandwa karinyeene kari na kworokera mainda jairi kana jathatu kuringana na warii bwa muti na jugukinyiirwa muthetu bwega. Muthetu jugacoka jugekirwa ruuji.
- Uria umba kuthithia kiumithirio kia miti gukathingata nyumene.



12. Miti yumaga mpindine aki?

- Miti imwe yumaga mirikene.(miti iminiini kuuma kiri miri na muri jungwa) iji no igitwe ikaandwa. Miti ingi womba kugiita rwang'i ruri na meetho ukaanda. Thuura rwang'i ruraaja, ruri na inya na ugite kigitirwa kinuki. Rita mabura . Tonyithia rwang'i ruru nthiguru muthetune na rungi rutigwe iguru ria muthetu. Miti ya muthemba juju jukagia muarite ta jwa ng'ina na jugatuma matunda jonora jwakura.

TIST: KUGEA KIEWA KIA UTONGERIA KUMANIA NA UTONGERIA BWA KITHIURUKO.

Utongeria bwa kithiuruko imbi?

Utongeria bwa kithiuruko ni area o mumemba wa gikundi ethagirwa ari na kaanya ga gutongeria na mwandiki (motongeria na muniini wawe) kiri micemanio yao. Guti mwene giti. Kwithagirwa kurina mutongeria na munini wawe mwanya kiri o mucemanio jwa kiumia. Kiewa kia utongeria ikiumbaga kugaanwa kiri amemba bonthe ba gikundi.



Amemba TIST Small Groups makiruta wira hamwe

Nimbi itumaga kwithirwa kuri na utongeria bwa kuthiurukana.?

O muntu ari njira mwanya kwithirwa kuri na utongeria bwa kuthiuruka ibutumaga amemba bathoma kumania na utongeria bwa bangi.

Bonthe bakethirua bakinanagira mwoyo, kinya amemba baria bari nthoni ibagijaga kiewa kia utongeria. Ibombaga kuthoma kiri bangi.

Utongeria bwa kuthiurukana ibutumaga muntu aigua atikinyirika niuntu bwa gutongeria igita rionthe. Murigo ijuganagwa , gutiwe ukamataga murigo wenka kana aigua anogi ni ngugi.

Utongeria bwa kutiurukana igutumaga gikundi kithirwa gitina mathina niuntu gutiwe ukethirwa ukiugaga igita rionthe. O mumemba akethirwa arina kaanya ga gutongeria.

Uria ubwirite kuthithia ukigeria utongeria bwa kithiuruko.

- Ambiria utongeria bwa kithiuruko orio.
- Nyuma ya o mucemanio itikanirieni na uria mutongeria na munini wawe mucemanione juu jungi.
- O mumemba no mwanka aewe kaanya ga kwa mutongeria na munini wawe.
- Mumemba akethirwa atikwenda gutongeria kana nakwigua nthoni, amemba ababwirite kumwaa kaanya ga kwona gugitongerua. No acoke ae munini wa mutongeria akija lwa mutongeria mucemanione jungi.
- Nankaniria biria uri nabio bia uritani kiri mutongeria uria ungi ukeeja.
- Rikana utige amemba bacokie kiuria woria.

Nimbi itumaga ethirwa ari wa kwinyiyia?

- Mutongeria no mwanka ethirwa ari wa kwinyiyia, wa gwetera, ugwitikiria na mwitikua.
- Mutongeria no mwanka onanie gwitikiiria na heshima kiri amemba bangi na atigane na mantu jaria jangi bathithagia oome ya gikundi.
- Mutongeria aragia bukai.Nabwirite gwikira bangi mwoyo jwa kwaria na kuganaga jaria bari najo.
- Atongeria no mwanka bathikiire amemba bangi mono. Bekire mwoyo jwa kwaria batigakire kii.
- Ugaciethia nukumenya macokio jonthe.
- Kinya ukethirwa ukimenyaga macokio, tigana na amemba bambe bariirie biuria bongwa. Mumemba oria kiuria nenkera amemba bariirie.
- Geragia kwona kiewa kia o mumemba na kumwikira mwoyo kiri mantu jaria akuthithia bwega.
- Itikiiria rwaria ruria rukwarua utigukararia kana kugita igamba.
- Itikiiria na wonanie heshima kiri muntu uria butikwiganua.
- Tiga nkanja. Itikira kinya mantu jaria jati ja kawaida na kuuga "ithuganio riu iririega, kuri ungi uri na ithuganio kiri untu buu?" Gerera amemba kenda baraniria.
- Rikana kugaanaga ngono ciaku inya na kugwa na amemba bangi. Mutongeria wa ma nabwirite bangi baigua bang'aniri ni gikaro kiu.

TIST Kenya: Aria tukinyite mwanka nandi.

TIST Kenya nitaga na mbere kwira amemba bayo ngugi yao aria ikinyite niuntu baritaga bagwatanirite. Ikwithirwa kuri na kugaruka o ntuku o uria ikundi



bigwita na mbere bigitonyaga, na miti igeta na mbere igitaragwa. Kuuma January 8th 2007, TIST Kenya niumbite kwithirwa iri na ikundi bibieru 3,529 Kenya. Miti iria itari mwanka nandi ni 3,553,030 na ya kwaanda 4,030,121.

Ukenda jaja jonthe tega website www.tist.org.

No butukinyire na ithanduku ria Posta **namba1508 Nanyuki** kana utume sms kiri namba:**0722-686267** (sms aki). Team yetu iri tayari igita rionthe kubutumikira.

Mantu jau jonthe ja kugaruka ni ja ubici cietu cionthe na nita au kwonanitue gaiti.

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Njira injeru ya gututongerira kiri gutaraniria kwa miti.

Niki tontu 6ft x6ft iri njira irea njega?

TIST nijukitie data ya ithimi bia kwaanda miti nkuruki ya miaka ithatu. Itwonete ati muriimi uria waandite miti yawe na ithimi bia 6ft. kuuma muti gwita jungi niwe miti yawe ikuraga bwega. Arimi bamwe ibatumirite ithimi bibi kagita gakaraaja, na miti yao niyo ikuraga bwega na ikethirwa iri iminene nkuruki ya iria yaandagwa na 3ft.

Itwonete ati miti iria yaandagwa na ithimi bia 3ft .ikuraga mpaara, na ikethirwa iri iminiini na nkuruki itumbaga gukucia ruugo ruruthuku bwega. Yerekeria ria TIST riria rinene ni waandi bwa miti kenda yuumba kugwata ruugo ruria ruthuku (carbon) na kuthithia muunda jwa murimi. Yerekeria rietu ti twaanda miti iri akui mono iria ikomba kuuma ikingi.TIST na arimi baria baandite miti na ithimi bia 6ft ibonete matokeo jamega kumania na ithimi biu. Miti iria yaandi na ithimi bia 6ft kana nkuruki itirujagira ruuji kana mboreo iria iri muthetune.

Buri na bata arimi bonthe ba TIST bamenye ati baria bataraga miti bagatara iria yaandi na ithimi bia 6ft na nkuruki. Ithimi bibi ibitumaga arimi baanda miti 1,000 ndene ya Hecta imwe ya muunda. Ikwonania miti ikaandwa itaraniritie niumbaga gukura iri na inya na ikethirwa iri na matunda jamaingi.