

Mazingira Bora



TIST

The International Small Group & Tree Planting Program
www.tist.org

English Version

An Environmental, Sustainable
Development and Community Forestry
Program.



TIST Kenya Leadership Council Members in a group photo after their monthly meeting held on 16-17 April 2012 at Simba lodge, Nanyuki

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The Rains Have Come – Time to Plant Many More Trees.

Preparing seedlings for transplanting (Hardening Off)

Now that rains have come, seedlings need to be planted out. It is important this month to make sure that seedlings will be ready to be moved from the nursery and planted in the field.

Seedlings first need to be prepared for the harsher conditions of the field. If seedlings have been properly looked after in a nursery, they may have received more water and shade than they will have once they have been planted. Gradually reduce the watering and expose the seedlings to full sunlight to make this transition successful.

Characteristics of good seedlings

As a general guide (remembering different species have different characteristics) good seedlings for planting out have the following characteristics:

- The shoot should be twice the length of the roots or the pot.
- The stem should be strong and woody.
- The seedlings should have many thin roots in addition to the main roots.
- Many seedlings will achieve these characteristics two months after germinating.

Transplanting

- Transport the seedlings in an upright position
- Mark out a circle with a diameter of 30cm in the field
- Remove the topsoil and place in a pile
- Remove the next soil layer to a depth of 30cm and place in a separate pile
- Put in a 5cm layer of grass (dry grass in rainy season, fresh grass in dry season), (called *mulching*). Some groups add manure as well.
- Remove the seedling from the polythene bag. Do not break the earth-balls around the roots.
- Place the seedling in the hole
- Replace the topsoil first, then the second soil layer.
- Some groups do not fill the hole completely, but leave a gap of a few cm. This helps the rainwater enter the hole and infiltrate the soil. This can be especially helpful in dry areas.
- Any remaining soil can be placed in a mound on the downhill side of the seedling. This will help trap any rainwater and divert it into the hole.
- Water the seedling.

Also remember that to give your seedling the best chance of survival you should plant the 3m - 4m apart. If you plant them closer together then the seedlings will not get all the water and soil nutrients they need because there is much competition. They will become weak and may die, so follow the best practice of a spacing of 2.5 - 3m.

The Importance of Trees

Trees are very important for environmental and material reasons:

A. *Environmental improvement:*

- Trees cover soil, which protects it from wind and water erosion.
- Leaves and twigs fall to the ground and provide the soil with extra nutrients.
- Trees increase soil moisture by covering the soil and hence reducing evaporation.
- Tree roots help bind the soil and therefore reduce erosion.
- Tree roots also help water to enter the soil and hence improve underground water circulation.
- Trees improve local weather conditions by increasing the amount of water vapor in the air (increased humidity).
- Trees improve air quality by absorbing carbon dioxide and releasing oxygen.
- Trees provide shade and shelter.

B. *Material and nutritional value:*

- Construction materials (furniture, posts, fences, rope etc.)
- Fuel wood
- Medicine
- Food/fodder

These benefits are really valuable for farmers and for the world. A recent survey of TIST farmers in Kenya showed that the value of fruits, nuts, fodder, and firewood from trees they have planted in TIST and improved yield from using Conservation Farming averaged almost 37,000 shillings per farmer. It's harder to put a value on the benefits of cooler, moister soil, cleaner air and some of the other benefits of the work we do in TIST, but we feel it on our farms every day.

Promoting tree planting is hence of great importance to the community.

Imagine what we can do when we plant more together!



Good nutrition for chronically ill people.

Eating the right foods is important for all of us, but for people who are ill.

Nutrition for long time patients

Illnesses such as Diabetes, Cancer, HIV and AIDS, and Tuberculosis (TB) are chronic illnesses, meaning they recur or last a long time. In many cases of AIDS a long-term patient can lose a lot of weight and children may fail to grow normally. Chronic diarrhea is often a problem, along with many other illnesses. Patients suffering from such diseases need to be fed the right, nutritious food to make them as strong as possible and help fight other infections. Good nutrition includes food which:

1. Provide energy to the body

Foods in this category are sources of carbohydrates and include:

- Ugali (stiff porridge made from maize) and thinner porridge made out of maize, sorghum, millet, finger millet or cassava.
- Rice.
- Sweet potatoes or Irish potatoes.

Note that oils and fats, in moderation, provide energy as well as adding taste to the food.

2. Are used for body building (Proteins)

- Meat (beef, chicken, goat, mutton, duck, guinea fowl).
- Fish (sardines, tilapia, Nile perch, mud fish).
- Eggs.
- Milk.
- Legumes (beans, cowpeas, green grams, peas).
- Groundnuts.

3. Are sources of Vitamins

Vitamin A is especially important for keeping people living with HIV/AIDS. Many vitamins, especially Vitamin A, are available in enough quantities from:

- Green vegetables (cowpea leaves, okra, cassava leaves).
- Orange fleshed vegetables (orange fleshed sweet potato)
- Plantain (matoke)
- Fruits, especially those with a yellow colour (oranges, pawpaws, mangoes, ripe bananas, guavas)

Drink

- Sick people need to drink a lot of water. Drinking water should be boiled for at least 10 minutes, cooled and stored in a clean, covered container. Clean water is important for all members of the family, but is especially critical to those with a chronic illness, since they cannot fight other diseases as well as someone who is strong.
- If the patient has chronic diarrhea you can make a simple rehydration drink to help replace the fluids the patient has lost. Dissolve six teaspoons of sugar and half a teaspoon of salt in one litre of clean water. Add fruit juice to make it taste better.
- **Remember the basic hygiene principles.**

If you are preparing food for someone who is ill, make a special effort to ensure your hands are clean, food is washed and cooked properly, and that eating utensils are thoroughly cleaned and dried. Following these good nutrition and hygiene principles can make a big difference for the chronically ill people we care for.



Increased hope witnessed in Kiegoi Cluster of Igembe TIST Area.

Prepared by Joseph Gituma and William Mugambi on behalf of Kiegoi TIST Farmers

We, TIST members from Kiegoi Cluster, appreciate the effort made by the TIST Leadership Council in sending Quantifiers to count our trees. We also thank the Quantifiers involved who did a good job within a short time. In Kiegoi, we are ready now to learn to do our own Quantification.

Speaking during last month's Cluster meeting, the area Assistant Chief, Mr. Mugambi Kalwilo, praised TIST for being a transparent organization. He pledged to support TIST. We the farmers also pledged to work hard to plant more trees in our own lands and grow TIST in our area. The more trees we plant, and the

bigger they grow, the more money we will earn from carbon sales and the greater the benefit we will have from other tree products.

As Chief Mugambi advised us, "If you listen to what these leaders are training, you will benefit more environmentally, financially and also alleviate poverty in this area."

We are now expecting to receive payment vouchers next month. We will be excited to receive our tree payments. In meantime, we all agreed that Virginia Gakubia and Josphat Kirimi learn about and take part in Quantification.

Karaba Cluster – Together we Achieve More.

By Mary Kathei

Since the election of the Group of Cluster Council (GOCC) last December, Karaba Cluster results have increased almost by 50 percent. Cluster meeting attendance has improved tremendously. Quantification of Small Groups is now better organized. Small Groups have added new nurseries. New Small Groups have joined TIST. More than 80 percent of the Cluster members are interested in buying TIST stoves.

Recently, Karaba Cluster multiplied to have a new child cluster – Munyu Cluster. We are going to support, guide and help this new Cluster as it grows and develops in strength.

We also appreciate rotational leadership that is well practiced in our Cluster. We give every member a chance to lead and share their unique leadership talents and gifts.



Munyu Child Cluster first meeting.

Celebrating a successful harvest with Conservation Farming.

By Dorothy Naitore

This season, we have some things to celebrate because of Conservation Farming. When we talk of conservation, we actually talk of regenerating the land. I have a true story of conservation to share with my fellow TIST members. Last season, I practiced Conservation Farming in a 30 by 30 meter area and harvested 3 bags of maize. In the other three quarters of the land, I harvested only 2 bags. It was incredible to see so much more yield on from the smaller piece of land! This cannot be compared with conventional farming. Over 400 TIST members who have reported on their CF practice have reported good harvest. We

would like to remind our brothers and sister sTIST members that we are facing a shortage of land. The little land we have is under great pressure, as we need harvest year after year and have little space for fallow. We help ourselves and protect our future when we conserve and protect these precious resources by using best practices, including zero tilling, mulching and fallowing the land where possible. By protecting the soil by not tilling the land, rotating the crops we plant, and practicing agro forestry, we can have better harvests to celebrate, for ourselves and for our children.



Good trees for TIST: Fruit Trees.

In TIST, we plant trees for the long-term. Co-benefits from these trees, like their fruit and nuts, can be really valuable, especially when we organize to market fruit and other products together. Here are some trees that can be very beneficial.

Avocado (*Persea americana*)

Ecology: Grown in all moist areas.

Pre-treatment: soak seeds in cold water for 24 hours, then plant directly into pots. Use fresh seeds as they do not store. Seedlings can also be grafted. Germination takes 3-4 weeks and spacing should be at least 6m. These trees are normally planted around the homes.

Uses: Firewood, charcoal, food, shade, cosmetics, oil. The fruit is nutritious, rich in fat, protein and vitamins. Bark, leaves and seeds are toxic to browsing animals. Seedlings can be intercropped with beans when young. This tree can be a good income-earner.

Guava (*Psidium guajava*, Kikuyu: Mubera)

Ecology: Drought resistant but can't tolerate water-logging.

Seeds: No pre-treatment. Germination: 3 weeks. Spacing: 4m.

Uses: Firewood, charcoal, poles, food, edible fruit rich in vitamin C and vitamin A. Bears fruit in 3-4 years. Wood is termite resistant. The dried ripe fruits are recommended as a remedy for dysentery, while the leaves and fruits are used as a cure for diarrhea. Oil exhibits anti-inflammatory properties. The leaves or bark are made into a lotion for skin complaints, ringworm, wounds, and ulcers. The leaves are also used for digestive tract ailments, cold, and high blood pressure, trauma, pain, headache, and rheumatism. Juice is used to help hepatitis, gonorrhoea, and diarrhea. **Intercropping:** Performs well when intercropped with fodder crops such as maize, sorghum and cowpeas. Guava can be invasive in some areas and take over a field.

Mango (*Mangifera indica*)

Ecology: Does not tolerate flooding and needs well-drained soil. It can do quite well in dry areas.

Seeds: No pre-treatment required, although nipping the seed helps germination. Seeds can be stored for a month at room temperature, fresh seeds are best. Can also use grafts.

Uses: Fuelwood, fruit, fodder, bee-forage, windbreaks, mulch, shade, soil conservation, gum.

Good trees for TIST: Indigenous trees.

a. Prunus africana (Kikuyu: Mui, Kimeru: Mweria)

This indigenous tree is mainly found in forest reserves. Seeds are available in forests, during the dry season. Collect only dark brown ripe fruits from the crown of the tree or the ground. Remove the pulp by soaking for 24 hours, then wash over a wire mesh. Spread in a thin layer in an airy shaded place to dry – but for 4 hours only.

The seed does not store so use the fresh seed. Wrapping moist leaves around the seed minimizes moisture loss during temporary transport and storage. Sow directly into the seedbed or pots. Germination takes 6-8 weeks.

Uses: Can repel some pests e.g. aphids, nematodes (those which attack crops) by its smell. Flowers have sufficient nectar and pollen for good bee forage. Produces high-quality firewood. **Medicine:** Liquid extracts from bark are used in the treatment of prostate cancer. Leaves are used as an inhalant for fever or are drunk as an infusion to improve appetite. Water is added to pounded bark, and the red liquid is used as a remedy for stomach-ache; bark extract may be used as a purgative for cattle. **Erosion control:** Trees can be grown along contour ridges and terraces, provides useful shade and acts as a windbreak. **Soil improver:** Leaves can be used as mulch and green manure. **Ornamental:** It makes an attractive garden shade tree.

b. Peacock Flower (*Albizia gummifera*, Kikuyu: Mukurwe)

This tree is commonly found in lowland and upland rainforest and in open habitats near forests.

Either untreated or soaked seeds are sown. Fresh seeds need no pre-treatment. Stored seeds are soaked in warm water and left to cool to room temperature. The seed coat may be nicked at the cotyledon end to hasten germination. Seed germination is good, 70-80%, within 10 days. Seeds should be collected while still on the tree to minimize insect damage. Seed can be stored for at least a year if kept dry and insect free through addition of ash.

Uses: Bee-forage, fuel wood, timber, gum, tannin, medicine (extracts from the crushed pods are taken for stomach pains and the bark decoction for malaria), erosion control (the root system holds soil and prevents gully erosion), ??shade, nitrogen fixing (improves the soil), known as a good mulch tree as leaf litter is abundant during the leaf shedding season, ??ornamental (planted in town avenues for aesthetic purposes), ??boundary planting, the leaves quicken the ripening process in bananas.

c. Olea africana (African wild olive, Kikuyu: Mutamaiyu, Kimeru: Muthata)

This tree is found in a variety of habitats, usually near water, on stream banks, and also in open woodland. It is resistant to both frost and drought.

Fresh seeds are used for sowing. Old seeds can be soaked in cold water for 48 hours.

Seeds are often pre-treated by cracking with a hand vice or by rolling a stone over seeds. This is because removing the endocarp can enhance germination. The seeds can be stored at dry room temperature for a few years.



Uses: Food: the main olive products are olive oil and edible olives. Fodder: The plants are much browsed on by livestock. Also used for fuel, timber, charcoal, tooth brushes and ornaments. Reclamation: The high drought tolerance suggests that it is a good candidate for reforestation in semi-arid zones of Africa. Ornamental: Olive trees have the capacity to beautify the landscape.

d. Waterberry (*Syzygium guineense*, Kikyuyu: Mukoe, Kimeru: Muriru)

This tree usually occurs in lowland rain forest and mountain rain forests. It commonly grows in moist conditions, sometimes even in water, and is usually found along streams.

Seeds need no pre-sowing treatment, as germination rates are good and uniform. Rates of 80-90% are

attained after 20 to 50 days. Direct sowing into pots is recommended. Fruits are perishable hence should be picked from the ground soon after falling. They may also be collected by shaking the branches with hooks. After collection, the fruits should be sown out immediately as seeds will lose viability if they are dried; if this is not possible, fruit can be stored for a few days in moist sawdust and open containers in well-ventilated rooms.

Uses: Food (fruit), bee forage, timber, fuel wood, shade, medicine (fruit is used as a remedy for dysentery, while a decoction of the bark is used to prevent diarrhea). Note the poisonous bark has been reported to cause human deaths, so advice should be sought from people experienced in using the products from this tree.

Improved stoves are here!!

TIST has continued to expand improved stove program. The benefits of these stoves range from fuel efficiency hence saving money used to buy wood fuel, keeping smoke out of kitchen hence improving our health, reducing carbon emission to the atmosphere hence improving our environment and many more.

TIST members are excited about TIST's Improved Stove Program. Many members have already signed up to purchase an improved stove. Starting this month, TIST is offering several new models from Envirofit and Jikopoa. Order your improved stove now!!

How do I order my Improved Jiko from TIST?

Here are the steps you should take to place an order for a stove...

1. Choose your stove: Each cluster will have brochures showing available models and prices. Look at the brochure and decide which stove is best for your family.

2. Place the order. Call your cluster accountability person or a stove coordinator to place your order. Be sure to give them this information:

- Purchaser name
- Purchaser phone number
- Purchaser TIST group number
- TIST cluster name
- The type(s) of stove you want to purchase

Current stove types:

- Jikopoa
- Envirofit Jikotosha
- Envirofit G —orange portable model
- Envirofit Z—metal fire chamber insert for mud stove
- Envirofit 2 pot/chimney attachment
- Mud stove with ceramic fire chamber (ONLY AVAILABLE IN Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo, Kilia, Kamwendei, Nthingini, Kagaene
- Number of each type of stove
- Will you be purchasing the stove for yourself or

someone else? If someone else, provide name and contact.

Cluster Accountability People should call in orders to the stove coordinators weekly.

TIST Stove coordinators:

- Charles Kamunya 0724 327 794
- James Mwai 0715 460 195

4. Make your payment: Payment must be made in full before a stove will be delivered.

To send your payment, find the MPESA for your region below and send the full amount to that number. When you make your payment, you will receive a confirmation from Safaricom that the payment was received by the TIST staff member as listed below.

- 0708 672 118 – Charles Kamunya
- 0708 672 116 – James Mwai

5. Save your receipts: When you send the MPESA, you will receive an SMS confirmation message from Safaricom for the transaction. Please keep this SMS for your records. Upon delivery of the stove, you will also receive a paper receipt. Receipts are important for your warranty if the stove is defective when you receive it.

6. Delivery and Pickup: Manufactured stoves will be delivered to the purchaser's cluster. Coordinators will arrange a time and place where your cluster members will pick up the stoves. Stoves should be delivered within 7 days of receiving your payment.

Mud stoves **are only available where the clay is good for building the stoves.** At this time, these clusters include Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo Kilia, Kamwendei, Nthingini, Kagaene.

After you pay for a mud stove, a stove builder will contact you within 7 days to arrange for a time to build your stove.

NOTES: Partial payments cannot be accepted at this time. Please pay in full.

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Kimereu Version

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Atongerira ba TIST ndene ya kenya mbichene imwe nyuma ya mucemanio juria jwario tariki ikumi na ithanthatu gwita ikumi na mugwanja mweri jwa inna 2012 naria Simba lodge, Nanyuki.

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Mbura ikwija- Ni igita ria kuanda miti ingi imingi.

Kuthuranira miti iria iumithitue ithamua ita muundene (Kumithithia uria ikomba kuumiria muundene)

Nandi niuntu mbura ikwija, miti iria iumithitue nigwiia kuandwa ome ya munanda. Burina bata mweri juju kumenyeera ati miti iu yaku iri tayari kuthamua kuuma munandene iandwa muundene. Miti iji iumithitue mbele nikwenda kuthuranirwa niuntu bwa mantu jamomu nkuruki naria muundene. Kethira miti nithiritwe ikimenyagirwa bwega munandene, no ithirwe ikiiri ruuji na kirundu gikingi nkuruki ya kiria kiri muundene yarikia kuandwa. Mpari mpari nyiyia ruuji ruria ukumikiira na umirugurire riu rionthe nikenda yumba gukara bwega yathama.

Miti ya kuanda iria miega ithagirwa irina jaja

Ta njira ya kawaida (ukirikanaga mithemba mwanya irina mantu mwanya) miti imiega ya kuanda niithagirwa irina jaja:

- Gitina kiria kiumirite kithirwe kiri na uraja bwa miri kana mubuko jairi
- Gitina kithirwe kirina inya na kiri gikiumu
- Miti ithirwe irina miri imiceke imingi na imwe iminene
- Miti iria mingi nikinyithagia mantu jaja na igita ria mieri iiri yarikia kuuma

Kuthamiria miti muundene

- Kamata miti irungi
- Maka kithiururi kiri na warie bwa 30cm muundene kana aria ukwenda kuanda
- Rita muthetu jwa iguru na urikire amwe
- Rita muthetu jou jungi mwanka 30cm kwinama na urikire muthetu juju angi.
- Ikira nyaki centimeter ithano (nyaki imbumu riria gukuura, nyaki itiumi igitene ria uumu)
- Rita muti mubukone. Ukagwithia muthetu jou jugwatene na miri.
- Ikira muti kirinyene
- Cokia muthetu jwa iguru mbele, riu jou jungi jwa iiri
- Ikundi bimwe bitiujuragia kirinya buru, indi nibatigaga kanya ga cm inkai. Bubu nibutethagia ruuji rwa mbuura gutonya kirinyene na kwou gutonya muthetune. Bubu nobutethie mono mono naria kuri gukuumu
- Muthetu jungi juria jumba kwithirwa jutigere nijwikagwa na kibango bwagaiti ya muti. Juju nijugwatagia ruuji rwa mbuura na jukarutongerira gutonya kirinyene
- Ikira muti ruuji.

Ririkana kinya ati nikenda ua muti kanya gakanene ga gukura nuubati kuanda utarenie meter

ithatu gwita inya. Waanda ikwianiritie nkuruki miti itikinyirwa ni ruuji na irio biria ikwenda nontu kwina gushindana gukwingi. Ikaaga inya na no ikue, kwou thingata mwithire jumwega buru jwa gutarania na meter ijiri na nusu gwita ithatu.

Bata ya miti

Miti iri bata mono niuntu bwa mantu jeienaria gututhiurukite na biria tutumagira:

A. *Kuthongomia naria gututhiurukite:*

- Miti nikunikagira muthetu, untu buria buebithagia gukamatwa kwa muthetu ni ruugo na ruuji.
- Mathangu na maang'i nijagujaga muthetune na jakongeera irio muthetune
- Miti niingiagia ruuji muthetune gukurukira gukunikira muthetu na kwou kunyiyia gukamatwa kwa ruuji ni riuu.
- Miri ya miti nitethagia kugwata muthetu na kwou kunyiyia gukamatwa kwa muthetu.
- Miri ya miti nitethagia kinya ruuji gutonya muthetube na kwou kuthongomia kuthiuruka kwa ruuji nthiguru ya muthetu.
- Miti nitethagia kutongomia rera ya aria iandi gukurukira kwingiyia ruuji ruria ruri ruugone.
- Miti nithongomagia uthongi bwa ruugo gukurukira gukucia ruugo ruruthuku na kurita ruugo rurwega.
- Miti niejanaga kirundu na antu a gwikunikira.

B. *Into na irio biria miti iejanaga:*

- Into bia gwaka (into bia nyomba, ikingi, ndwego, mikanda)
- Nkuu na makara
- Ndawa
- Irio bia antu na ndithia

Baita iji icithiritwa ciri inene mono kiri arimi na nthiguru yonthe. Uteri bwarua bwa arimi ba TIST ndene ya Kenya nibwonenie ati baita cia matunda, nkandi, iria ria ndithia na nkuu kuumania na miti iria baandite ndene ya TIST na maciara jamathongi nkuruki kuumania na urimi bubwega niikinyite baita ya ngiri mirongo ithatu na mugwanja kiri o murimi. Burina inya nkuruki kuthima baita ya muthetu juri na ruuji rurwingi nkuruki na ruugo rurutheru nkuruki na kinya imwe cia baita ingi cia ngugi iria turitaga ndene ya TIST, indi nitucigagua ndene ya miunda yetu ntuku cionthe.

Kwou gwitithia na mbele uandi bwa miti kurina bata mono kiri antu betu. Thugania jaria tuthithia tukeja kuanda miti ingi turi amwe!



Irio bibiega kiri baria bajitue ni mirimo ya igita riraja.

Kurio irio biria bibati kuri bata kiri twinthe indi mono kiri baria bajitue.

Irio bia ajii ba igita riraja

Mbajua ta murimo jwa cukari, cancer, mukingo na TB ni mirimo itithiraga kana iria ikaraga igita riraja. Jaria maingi kiri mukingo, mwajii wa igita riraja no anyie urito na aana nobaremwe gukura uria babati. Murimo jwa kioro gikiuthu juria jwicokagira jaria maingi nijwithagirwa juri thiina iria ijanagia na mirimo ingi. Ajii bajitue ni mirimo ta iji nibetagia kuewa irio biria bibati bwega nikenda bagia inya iria yuumbika na bibatethia gukabana na mirimo ingi iria igucemera. Irio bibiega niamwe na irio biria:

1. Biejaga mwiri inya

Irio ndene ya gikundi giki ni biumo bia inya na ni amwe na:

- Nkima(ucuru bukimitwe bukooma) na ucuru bungwa buumenie na mpempe, muya, ugimbi, mwere kana mianga.
- Muchele
- Mikwaci ya mikuo na ithungu.

Menya ati maguta jathimiri nijaejanaga inya kinya jo na njira ya kuthongomia irio.

2. Bitumagirwa guaka mwiri

- Nyama (ng'ombe, nguku, mburi, ng'onde, mbata,).
- Makuyu (sardines, tilapia, Nile perch, mud fish).
- Nkara.
- Iria
- Ming'ao(mung'ao, ncugu, ndengu, nono).
- Karanga

3. Biumo bia Vitamin

Vitamin A irina bata mono kiri kumenyeera antu baria bajitue ni mukingo. Vitamin inyingi mono A iri kiri bibi:

- Matanda (mabura ja ncugu, terere, mabura ja mianga)
- Matanda jaria jarina rangi intone (ta ikwaci bia mukuo)
- Marigu
- Matunda, mono jaria jari na rangi ya yellow (machungwa, mababai, maembe, marigu, mbera)

Nyua

- Ajii nibagwitia kunyua ruuji rurwingi. Ruuji rwa kunyua nirubati kutherukua no ndaika ikumi, rukorua na rugekwa kibuune gikitheru na gikuniki. Ruuji rutheru ruri bata kiri amemba bonthe ba nja indi mono ruri bata kiri baria bajitue ni miromo ya igita ririraja niuntu batiumba gukabana na mbajua ingi bwega ta muntu uria urina inya.
- Kethira mwajii arina kioro gikiuthu gigwicokera no umuthithirie gantu ga gucokia ruuji mwiri antua rou rukuura. Urugira iciko bitantatu bia cukari na giciko nusu gia cumbi ruujine rurutheru rwa liter imwe. Ongera ruuji rwa gitunda nikenda runyika.
- Rikana mantu jaria jabati kuthingatwa kiri utheru. Kethira nukuthuranira mwajii irio, jukia itagaria ringi ria kumenyeera ati njara ciaku niintheru, irio nibithambi na biarugwa bwega, na ati into bia kuriira nibithambitue bwega na bianyarua. Kuthingata mantu jaja jegie irio na utheru nokuthithie mwanya jumunene mono kiri baria tukumenyeera.



Witikio bubwingi nibwonetwe cluster ya Kiegoi ndene ya ntuura ya TIST ya Igembe.

Ni Joseph Gituma and William Mugambi antune a arimi ba TIST ba Kiegoi

Batwi, amemba ba TIST ba cluster ya Kiegoi, nitugucokia nkatho niuntu bwa ngugi iria itwi ni atongereria ba TIST kiri gutuma Atari miti gutara miti yetu. Nitugucokeria nkatho kinya Atari miti baria baritite ngugi inthongi ndene ya kagita gagakai. Ndene ya Kiegoi, turi tayari kuthoma kuthithia utari miti bwetu twingwa.

Akiaragia mucemanione jwa cluster jwa mweri muthiru, munini wa chibu wa ntuura yetu, Mr. Mugambi Kalwilo, nakathire TIST niuntu bwa kithirwa iri kambuni irina weru. Nekire wirane kugwata TIST mbaru. Batwi amemba kinyatwi nitwekire wirane kurita ngugi nainya na kuanda miti ingi miundene yetu na kukuria TIST

ndene ya ntuura yetu. O uria miti iria tukuanda ikwingia, na ouria igukura, nou tukona mbeca inyingi kuumania na thoko ya ruugo na nou baita kuumania na into biria biumanagia na miti ikaingia.

Ta uria Chibu Mugambi atwathire, “wathikira uria atongereria baba bakuritana, ukona baita na njira ya kuthongomia naria gututhiurukite, na kimbeca na kunyiyia kinya ukia ndene ya ntuura iji.”

Nandi nitweterete gukinyirwa ni vocha mweri juju jwijite. Tukagwirirua mono gukinyirwa ni mbeca kuumania na miti yetu. Igitene riri, nitwetikaniririiie ati Virginia Gakubia na Josphat Kirimi bathome na batetherie gutara miti.

Cluster ya Karaba- Amwe tukathia jamaingi nkuruki.

Ni Mary Kathei

Kuuma kithurano kia gikundi gia cluster Decemba nthiru, mantu ja cluster ya Karaba nijathongomete na nusu ingi nkuruki ya uria jarakari. Antu baria bejaga mucemanione nibaingiite mono. Utari miti bwa ikundi bibinini nibubanganitwi bwega nkuruki. Ikundi bibinini birina minanda imieru. Ikundi bibieru nibitonyete TIST. Nkuruki ya amemba ba cluster banana kiri o ikumi nibakwenda kugura mariko ja TIST.

Rua, cluster ya Karaba nigaenie yauma cluster inini ya Munyu. Tukagwata mbaru, tutongereria na tutethie cluster iji njeru o uria igukura na ikugia inya.

Nitugwiragirua utongereria bwa kuthiuruka buria butumagirwa ndene ya cluster yetu. Nituejaga o mumemba kanya ga gutongereria na kugaana mantu jegie utongereria jaria batharimi najo.



Cluster inini ya Munyu mucemanione jwayo ja mbele.

Kugwirirua iketha ririthongi na urimi bubwega.

Ni Dorothy Naitore

Ngai iji, turina mantu ja kugwirirua niuntu bwa urimi bubwega. Riria tukwariria urimi bubwega, neka tukwariria gucokaniria muunda. Ndina rugono rwa mma rwa urimi bubwega rwa kugaana na amemba bangi ba TIST. Mbura nthiru, nindaandire na urimi bubwega kamundene ka warie na uraja bwa meter mirongo ithatu na ndaketha nkunia ithatu cia mpempe. Kiri muunda jou jungi jwa nusu na quarter, ndakethere nkunia ijiri aki. Nikwarigaga mono kuona iketha riringi nkuruki kuumania na kamunda gakanini nkuruki. Bubu butumba guteganirua na urimi bwa gintwire. Nkuruki ya amemba ba TIST Magana jana nibagaanite natue ati iketha riao ria urimi bubwega nirithiritwe rithongi. Twenda kurikania atanocia na arocia ba TIST ati turina

thina ya tumiunda tutunini. Kamunda gakanini karia twinako nigakwendeka kuthithia jamaingi niuntu nitugwitia guketha mwaka nyuma ya mwaka na kwou tutiumba kuika miunda iji itiandi. Nitwitethagia na tugatethia baria bakeja nyuma yetu riria twaika na twamenyera into biria turina bio gukukurukira gutumira mitire iria miega buru, amwe na kuanda tutigutira, gukunikira muthetu na mati na mathangu na gutiga miunda itiandi riria tukuumba. Gukurukira kumenyeera muthu na kurega gutira, kugarura imera biria tukuanda na kuandaniria miti na imera twomba kwona maketha jamathongi nkuruki ja kugwirirua kiri bati na kiri aana betu.



Miti imiega kiri TIST: Mitunda.

Ndene ya TIST nituandaga miti ya igita riraja. Baita iria ciijaga na miti iji ta matunda na nkandi nociithirwe iri inene mono, mono twabangania kwendia matunda na into bingi amwe. Nthiguru aja ni imwe ya miti iria iumba kureta baita inene.

Mubukando (*Persea americana*)

Naria jubujaga: Juandagwa guntu kunthe kuria kwina ruuji.

Kuthuranira kuumithia: Riinda mbeu iji ruujine rwa mpio mathaa mirongo iri na janna, riu uande mibukone. Tuumira mpindi orio watura gitunda nontu mpindi itikarakaraga. Nijuumaga na biumia bithatu gwita bina na ibati kuandwa itarenie na nkuruki ya meter ithanthatu. Miti iji niandagwa mono akui na nja.

Utumiri: Nku, makara, irio, kithiiki, guaka mwiri, maguta ja kuruga. Gitunda nigikiega kiri mwiri, kina maguta, nigiakaga mwiri na nigitethagia mwiri kwinga mbajua. Gicau, mathangu na mpindi ni sumu kiri nyomoo iria irijaga imera. Muti juju nijuretaga mbeba inyingi.

Mubera (*Psidium guajava*, Kikuyu: Mubera)

Naria jubujaga: Jutiigagua uumo indi jutikara antu kwina ruuji ruigarite.

Mbeu: Itiitaga kuthuranirwa. lumaga na biumia bithatu. Ibatu kuandwa itarenie na meter inya.

Mootumiri: Nkuu, makara, ikingi, irio, gitunda kirijagwa

kina vitamin A na B. juciaraga nyuma ya miaka ithatu gwita inna. Rubao rwaju rutirijagwa ni muthwa. Matunda jaju jamagundu nijatethagia murimo jwa kuugja, mathangu na matunda najo nijatethagia kworia kioro gikiuthu. Maguta jaju jatigwataga mwanki. Mathangu na gicau kiaju nibitumagirwa kuthithia maguta ja gwaka ja kuthiria thiina cia mwiri, mathainya, irona na ulcers. Mathangu nijatumagirwa kinya kuthiria thiina cia mwiri cia naria irio biitagira, mpio na gwitia kwa ndamu, kuthangika nkoro, murimo, mutwe na mbajua ya kugia murimo icunci bibingi bia mwiri. Ruuji rwaju nirutumagirwa gutethia ajii ba hepatitis, gonorrhoea na kioro gikiuthu. Kuandaniria na imera: nijuthithagia bwega riria jwaandanirua na imera bia ndithia ta mpempe, muya na ncugu. Mibera noiume antu amwe imingi na ijure muundene kana kienine.

Muembe (*Magnifera indica*)

Naria jubujaga: Jutiumba kubua antu ruuji ruigaraga na nijuendaga muthetu jutigwika ruuji igita ririnene. Nojuthithie bwega guntu gukuumo.

Mbeu: Can also use grafts. Mbeu itiendaga kuthuranirwa mbele ya iandwa, kinyethira gukunyakunya mpindi nigutethagia kiri kuuma. Mpindi nocikare mweri antu gutina mwanki, indi mpindi ciaritwa orio nicio njega nkuruki.

Mootumiri: Nkuu, matunda, iria ria ndithia, irio bia njuki, kunyiyia ruugo, gukunikira muthetu, kithiiki, gwika muthetu bwega, gum.

Miti imiega kiri TIST: Miti ya gintwire.

a. *Prunus africana* (Kikuyu: Muiri, Kimeru: Mweria)

Muti juju jwa gintwire jwonekaga mono ndene ya miitu. Mpindi niciithagirwa cirri miitune igita riria kuumi. Oja ntunda iria aki cigarukite rangi ciairua na iria cigundi kuuma kiri muti kana nthiguru.

Riita kiu kithiurukite mpindi na njira ya kurinda tunda mathaa mirongo iri na jannari unyarie iguru ria wire. Ara utirikarite antu ari na ruugo na kirundu nikenda ciuma- indi ugakurukia mathaa janna. Mpindi itiumbaga gwikwa kwou tuumira woja orio. Gukunikira mbegu na mabura jarina ruuji nikunyiagia kuura kwa ruuji igitene ririkai ria gukamata na gwika. Anda munandene kana maratasine. Kuuma kwijaga nyuma ya biumia bitantatu gwita banana.

Utumiri: No juinge tunyomoo tumwe turia tugitaragia imera niuntu bwa mununko jwaju. Maua jarina sukari ya kung'ana kuthithia naicu. Jurina nkuu injega mono. Ndawa: Ruuji kuuma gicaune nirutumagirwa kworia kunenea kwa prostate. Mathangu nijatumagirwa gukucia niuntu bwa gwitia kwa mwanki jwa mwiri kana jakanyuwa jakimenue nikenda muntu omba kwenda kuria irio. Ruuji nirwongagirwa kiri gicau gikimenue, na ruuji ruru rutune nirutumagirwa kworia kiu; gicau no gitumirwe kiri ndithia. Kunyiyia ukamati bwa muthetu: Miti noiandwe nterene cia mitaro na naria kwini, niejanaga kirundu kiri na baita na ninyiagia ruugo. Nijuthongomagia muthetu: Mathangu no jatumirwe gukunikira muthetu na ta mboleo imbithi. Kuthongomia: Nijuejaga muti jumuthongi jwa kuanda kienine jwa kuejana kirundu.

b. *Peacock Flower* (*Albizia gummifera*, Kikuyu: Mukurwe)

Muti juju mono nijwonekaga naria gutina ibari na miitune iria iri guntu kwa mbura na ndene ya mathaka jaria jatirimagwa akui na miitu

Mpindi cioji orio itiendaga uthuraniri. Mpindi (mbegu) iria ikarite cieki nicirindagwa ruujine rwa murutira na rugatigwa kwora mwanka mwanki jwa nyomba. Gikonde kia mpindi no gikunywe aria mpindi yumagira nikenda yumba kuumanga. Mpindi niurangaga, na ntuku ikumi. Mbeu niibati gutua cirri mutine nikenda tunyomoo tutikacigitarie. Mpindi no ciikwe nkuruki ya mwaka aki ciekwana antu gukuumo na aria gutina tunyomoo na njira ya kwongera muju jwa riiko.

Utumiri: Nijutumagirwa ni njuki kuthithia naicu, nkuu, mpao, gum, tannin, ndawa -kuumania na mpindi cikimitwe nicinyunyagwa kworia thina cia kiu na ruuji kuumania na gikonde kia muti rugatumirwa kworia rwagi, Kunyiyia ukamati bwa muthetu (uria miri iri nigutethagia kugwata muthetu na kunyiyia ukamati bwa ruuji ni ngai). Kirundu, gwikira ruugo rwa Nitrogen muthetune (kuthongomia muthetu), kuria kujukagua kuri njira ithubongi ya gukunikira muthetu niuntu mathangu nijaguaga jamaingi igitene riago riakugua. Kuthongomia (Nijuandagwa njirene ya town niuntu bwa ithubongi bwaju). Kuanda mianka, Mathangu nijatumaga marigu jakagundanga.

c. *Olea africana* (*African Wild Olive*, Kikuyu: Mutamaiyu, Kimeru: Muthata)

Muti juju nijwonekaga guntu gukwingi mono akui na nduui na nterene cia miuro iminini n kinya ndene ya



miitu ya mpao iminene. Jutigitaragua ni mpio inyingi kana uumo.

Mpindi ciumite muundene orio nicitumagirwa kuanda. Mpindi inkuru no cirindwe ruujine rwa mpio ntuku ijiri. Mpindi niciambaga kuthuranirwa na njira ya kuuna gikonde na gantu ga kugwata na njara kana kwingiritiria iiga iguru ria mpindi iu. Bubu nibuthithagua niuntu kurita gikonde giki nigutumaga muti jukaumanga. Mpindi iji no cikwa atu gukuumo miaka imikai.

Utumiri: **Irio:** Biria muti juju juejanaga na wingi ni maguta na ntunda cia kuria. Imera bibi nibirijagwa ni ndithia mono. Kinya nijutumagirwa ta nkuu, mpao, makara, mirashi ya maigo na kuthongomia. Gucokia uria munda jwari: Uumbi bwaju bwa gutuura kinya igita ria uumo nibutumaga jukaa muti jumwega jwa kuanjia miitu kairi guntune gukuumo ndene ya Africa. Kuthongomia: Muti juju nijumbaga kuthongomia uria muunda jukari

d. Waterberry (Syzygium guineense, Kikyuyu: Mukoe, Kimeru: Muriru)

Muti juju nijwonekaga ndene ya miitu ya mbura iria iti

irimene na kinya iria iri irimene. Mono niuмага guntu kurina ruuji rionthe, mono kinya ndene ya ruuji, na niithagirwa mono nterene cia nduui inini.

Mbegu itiendaga kuthuranirwa mbele ya kuandwa, niuntu kuuma nikwijangaga na kwambagiria o rimwe. Nijukurangaga niuntu nijwithagirwa jukunenea mono ndene ya ntuku mirongo iiri gwita mirongo itano. Kuanda o rimwe turatasine nigwiikagirwa. Matunda nijathukangaga na kwou nijabati kwojangwa nthi jarikia kugua orio. Kinya nojojwe warikia kwainania muti na rwogoro. Joojwa, matunda jaja nijabati kuandwa orio niuntu nijathukangaga jooma. Kethira bubu butiumbika, itunda noriikwe ntuku inkai jaumbiki kiri sawdust na jari mikebene itikuniki nyomba iri na ruugo rurwega

Utumiri: Irio (gitunda), kuthithia naicu, Mpao, Nkuu, Kirundu, Ndawa (gitunda giki nikioragia mutimo jwa dysentery, ruuji kuumania na gicau nirutumagirwa kwinga kioro gikiuthu). Menyeera: gicau kiu kiri sumu nikirikanite no gitume muntu akue, kwou nubati kwamba kuuria baria batumirite gikonde pkia muti juju kiri kuthithia ndawa.

Mariko jamega nkuruki jagukinya!!

Tist niitite na mbele gutambia mubango jwa mariko jamega nkuruki. Baita cia mariko jaja ni amwe na atumiri bwa nku inkai kwou gwika mbeca iria iringitumi rwa kugura nku, kuumaria toi oome e riiko na kwou kuthongomia thiria yetu ya mawiri, kunyiyia ruugo ruruthuku ruria mariko jaritaga na kwou kuthongomia naria gututhiurukite na baita ingi inyingi.

Amemba baTIST nibagwiriritue mono mubango jwa TIST jwa mariko jamega nkuruki. Amemba babaingi nibaciandikithitie kuguura kiriko. Kwambiria mweri juju, TIST ikareta mariko mwanya mwanya kuuma Envirofit na Jikopoa. Itia kiriko giaku nandi!

Niatia mpumba gwitia kiriko giakwa kuuma kiri TIST?

Jaja niyo matagara jaria ubati kujukia gwitia kiriko....

1. Taara riiko riaku: O cluster ikethirwa irina mbicha cia mariko jaria jario na uguri bwajo. Tega mbicha iu na umenye ni riiko ririku rikubuiria nja yaku.

2. Itia riiko: Ringira mwiki mbeca na mauku ja cluster yaku kana mubangiri wa mubango jwa mariko nikenda uuga ni riiko riku ukwenda. Ririkana kubeera:

- Riiwa ria muguri
- Namba ya muguri ya thimu
- Namba ya gikundi gia TIST kiria muguri ari
- Riiwa ria cluster
- Muthemba jwa riiko riria ukwenda kugura

Mariko jaria jario thaa iji:

Jikopoa

Envirofit Jikotosha

Envirofit G —ria orange riumba gukamatwa

Envirofit Z—metal fire chamber ria gutonyithia riikone ria ntaka

Envirofit 2 pot/chimney ya kugwatithania

Mud stove with ceramic fire chamber (Riri ririoneka Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo, Kilia, Kamwendei, Nthingini, Kagaene aki.)

— Mariko jang'ana ja o muthemba

— Gukwigurira gwengwa kana ni muntu ungi ukugurira?

Kethira ni muntu ungi, eejana riiwa na njira ya kumukinyira.

Ameyeeri mauku na mbeca cia cluster nibabati kuringa thimu gwitia mariko kiri mubangiri mubango jwa mariko o kiumia

Abangiri mantu ja mariko ndene ya TIST:

Charles Kamunya 0724 327 794

James Mwai 0715 460 195

4. Riira kiriko giaku: Riiko no mwanka ririirwe mbeca cionthe mbele e riretwa.

Gutuma mbeca ciaku tega namba iria ugatumira aja nthiguru na M-Pesa ntuurene yaku na utume mbeca cionthe kiri namba iu. Warikia kuria, ugatumirwa ntumwa ya thimu ni safaricom kwirua mbeca iu cigukinyira mutongeria wa TIST ja uria kuandiki aja nthiguru.

0708 672 118 – Charles Kamunya

0708 672 116 – James Mwai

5. Iika riciti yaku: Watuma mbeca na M-Pesa, ugatumirwa ntumwa ikuuga ugutuma ni safaricom. Itu iika ntumwa iji. Wakinyirwa ni riiko, ukanenenkerwa riciti ingi iandiki. Riciti niciendekaga riria ugucokia riiko niuntu riagukinyira rithuki.

6. Gukinyithua na kujukua kwa mariko: Mariko jaria jathithitue jakaretwa kiri cluster ya muguri. Abangiri bakabangira thaa na aria amemba ba cluster bakomba kujukua mariko bongwa. Mariiko nijabati gukinyithua mbele ya ntuku mugwa nja ithira riarikia kuriirwa.

Mariko ja ntaka jakoneka akin aria kurina muthetu jumwega jwa gwaka mariko. Thaa iji ni cluster iji cigukinyirwa ni mariko jaja: Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo Kilia, Kamwendei, Nthingini, Kagaene

Warikia kuriira riiko ria ntaka, mwaki agakuringira mbele ya ntuku mugwanja ithira nikenda bukabangania riria agagwakira riiko riaku.

Ririkana: Mbeca iting'ani ititikirua igitene riri. Itu ria mbeca cionthe

Mazingira Bora



TIST

The International Small Group & Tree Planting Program
www.tist.org

Kiswahili Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Baraza la Leadership Council ya TIST Kenya baada ya mkutano wao wa mwezi ulifanyika tarehe 16-17 April 2012, Simba lodge, Nanyuki.

TIST hushapisha nakala kwa lugha ya mama katika maeneo inayohundumia wakulima. Nakala hii ya Kiswahili imeshapishwa kutumika kwa maeneo ambayo TIST inaanza. Pindi tu vikundi vindogo vitasajaliwa ramsi katika mradi wa TIST na kuweko kwa TIST Cluster, nakala ya lugha ya mama itaanzishwa katika maeneo hayo.

Ndani:

- Mvua imefika - Wakati wa kupanda miti mingine mingi. Uk. 2**
- Lishe nzuri kwa walio na magonjwa yasiyopona au ya muda mrefu. Uk. 3**
- Kuongezeka kwa matumaini kumeonekana katika cluster ya Kiegoi katika eneo la TIST la Igembe. Uk. 4**
- Karaba Cluster – Pamoja twaweza kutimiza makubwa zaidi. Uk. 4**
- Kufurahia mafanikio ya mavuno na ukulima bora. Uk. 4**
- Miti mizuri katika TIST: Miti ya matunda. Uk. 5**
- Miti mizuri katika TIST: Miti ya kiasili. Uk. 5**
- Meko bora yako hapa!! Uk. 6**



Mvua imefika- Wakati wa kupanda miti mingine mingi.

Kutayarisha miche ili kuihamisha (Kuitayarisha kuishi katika hali ngumu)

Sasa kwa kuwa mvua imefika, miche inahitaji kupandwa. Ni muhimu mwezi huu kuhakikisha kuwa miche iko tayari kuhamishwa kutoka kitaluni na kupandwa shambani.

Miche kwanza inahitaji kutayarisawha kwa hali ngumu iliyo shambani. Kama miche imekuwa ikichungwa vyema kitaluni, inaweza kuwa ikipata maji zaidi ya ambayo itapata ikishapandwa shambani. Kidogo kidogo, ipunguzie maji unayoipa na uifungulie jua lote kuhakikisha itaweza kuhimili uhamisho huu inavyofaa.

Sifa za miche mizuri

Kama mwelekezo wa kijumla (ukikumbuka namna mbalimbali huwa na sifa mbalimbali) miche mizuri ya kupanda huwa na sifa zifuatazo:

- Shina linapotokeza lafaa liwe na urefu wa mizizi au mfuko mara mbili.
- Shina lafaa kuwa lenye nguvu na gumu.
- Miche inapaswa kuwa na mizizi myembamba mingi pamoja na mizizi mikubwa.
- Miche mingi itakuwa na sifa hizi baada ya miezi miwili ikishaota.

Kuhamisha

- Beba miche ikiwa imesimama inavyofaa
- Pima duara lenye upana wa sentimeta thelathini shambani
- Toa mchanga wa juu na huuweke kwa pango
- Toa safu la pili la mchanga hadi sentimeta thelathini na uweke kwa pango lingine.
- Safu la nyasi sentimeta tano (nyasi kavu msimu wa mvua, nyasi mbichi msimu wa ukavu). Vikundi vingine huongeza mbolea pia.
- Toa mche mfukoni. Usivunje mchanga uliozunguka mizizi.
- Weka mche shimoni
- Rudisha mchanga wa juu kwanza, halafu safu la pili la mchanga.
- Vikundi vingine havijazi shimo hadi pomoni, ilhali huacha pengo lasentimeta chache. Hili husaidia kuingiza maji ya mvua shimoni na mchangani. Hili sana sana husaidia maeneo makavu.
- Mchanga ambao hubaki unaweza kuwekwa kwa pango kwa upande wa chini wa mche. Tendo hili husaidiakushika maji yoyote ya mvua na kuyarudisha shimoni.
- Chotea mche maji.

Kumbuka pia kuwa ili kuupa mche wako nafasi nzuri ya kuishi inafaa huipande ikitengana meta tatu kwenda nne . Ukiipanda karibu kuliko hivyo, miche

yako haitapata maji na madini ya mchanga yote inayoitaji kwa sababu ya ushindani mwingi. Itakosa nguvu na yaweza kufa, kwa hivyo fuata mwenendo mwema zaidi wa kutenganisha kwa meta mbili na nusu kwenda tatu.

Umuhimi wa miti

Miti ni muhimu sana kwa sababu za kimazingira na kibidhaa:

A. Kuboresha mazingira:

- Miti hufunika mchanga, tendo ambalo hulinda mchanga kutokana na mmomonyoko unaosababishwa na upepo na maji.
- Majani na matawi huanguka ardhini na kuoongeza madini mchangani.
- Miti huongeza unyevu mchangani kwa kuufunika mchanga na kupunguza **evaporation**.
- Mizizi ya miti husaidia kuushika mchanga na hivyo basi kupunguza mmomonyoko.
- Mizizi husaidia maji kuingia mchangani na hivyo basi kuboresha mzunguko wa maji yaliyo chini ya ardhi.
- Miti huboresha hali ya anga ya ilipopandwa kwa kuongeza unyevu hewani (kuoneza ubaridi)
- Miti huboresha uzuri wa hewa kwa kunyonya hewa chafu n na kupumua hewa safi.
- Miti hutupa kivuli na pa kujifunika.

B. Thamani ya kibidhaa na kilishe:

- Bidhaa za kujenga (vyombo vya kutumia ndani ya nyuma, gogo, kamba na kadhalika)
- Kuni au makaa
- Dawa
- Lishe ya watu na ng'ombe

Faida hizi ni zenye thamani sana kwa mkulima na kwa dunia yote. Utafiti wa hivi juzi wa wakulima wa TIST katika Kenya ulionyesha kuwa thamani ya matunda, lishe ya ng'ombe na kuni kutoka kwa miti waliyopanda wakiwa TIST na mavuno bora kutokana na Ukulima Bora ilifika elfu thelathini na saba kwa kila mkulima. Ni ngumu kupima thamani ya faida za mchanga baridi na wenye unyevu zaidi na faida zingine za kazi tunayofanya katika TIST, lakini tunaiona thamani hii mashambani mwetu kila siku.

Kupendakeza upandaji wa miti hivyo basi, ni muhimu sana kwa jamaa.

Fikiria ambayo twaweza kufanya kukipanda zaidi tukiwa pamoja!



Lishe nzuri kwa walio na magonjwa yasiyoona au ya muda mrefu.

Kula chakula kinachofaa ni muhimu kwetu sote lakini sana kwa walio wagonjwa.

Lishe ya wagonjwa wa muda mrefu

Magonjwa kama ya sukari, saratani, ukimwi na TB ni magonjwa yasiyoona, yaani yanayojirudia rudia ama yanayokaa muda mrefu. Katika kesi mingi za ukimwi, mgonjwa wa muda mrefu anaweza kupunguza uzito na watoto wanaweza kushindwa kukua inavofaa. Ugonjwa wa kuhara usioona sana sana ni shida, ukija pamoja na magonjwa mengi mengine. Wagonjwa walio na magonjwa kama hay huitaji kulishwa chakula kinachofaa na chenye madini yanayofaa kuwafanya kuwa wenye nguvu tosha ya kusaidia kuyafukuza magonjwa mengine. Lishe inayofaa ni pamoja na chakula ambacho:

1: Hupa mwili nguvu

Chakula katika kundi hili hutupa kabohaidreti na ni pamoja na:

- Ugali and uji wa mahindi, wimbi, mtama, au mihogo
- Mchele.
- Viazi tamu ama viazi.

Kumbuka kuwa mafuta ya wanyama na ya mimea, kwa vipimo huongeza nguvu na pia kuviongeza vyakula utamu.

2: Hutumika kujenga mwili (protini)

- Nyama (ng'ombe, kuku, mbuzi, kondoo, bata)
- Samaki (dagaa, tilapia, Sangara wa Nile, samaki wa matope).
- Mayai
- Maziwa
- Kunde (maharagwe, kunde, ndengu, mbaazi)
- Njugu

3: Hutupa vitamini

Vitamini A sana sana ni muhimu katika kuwatunza wemye Ukimwi. Vitamini nyingi, sana sana Vitamini A, hupatikana kwa vipimo vinavyotosha kutoka kwa:

- Mboga za kijani (majani ya kunde, okra, majani ya mihogo).
- Mboga zenye rangi ya machungwa (Viazi vitamu)
- Ndizi
- Machungwa, sana sana yenye rangi ya njano (machungwa, papaya, maembe, ndizi zilizoiva, mapera)

Kunywa

- Wagonjwa huhitaji kunywa maji mengi. Maji ya kunywa yanapaswa kuchemshwa kwa dakika zaidi ya kumi, yaachwe kuwa baridi na yawekwe katika mkebe msafi na uliofunikwa. Maji safi ni muhimu kwa familia yote lakini ni muhimu zaidi kwa wenye magonjwa ya muda mrefu, kwani hawawezi kufukuza magonjwa mengine vizuri kama mtu aliye na nguvu.
- Kama mgonjwa na ugonjwa wa kuhara usioona, unaweza kutengeneza kinywaji cha kuyarudisha maji ya mwili anayopoteza. Koroga vijiko sita vya sukari pamoja na kijiko nusu cha chumvi kwa lita moja ya maji safi. Ongeza juisi kuyapa utamu.
- **Kumbuka mambo ya kila wakati kuhusa usafi.** Ukiwa unatengeneza chakula cha mgonjwa, tukua hatua ingine ya kuhakikisha kuwa mikono yako ni safi, chakula kimeoshwa na kupikwa vizuri na kuwa vyombo vya kulia vimesafishwa na kukaushwa vizuri. Kuzingatia chakula kinachofaa na usafi kunaweza kufanya makubwa kwa wagonjwa wa muda mrefu tunaochunga.



Kuongezeka kwa matumaini kumeonekana katika cluster ya Kiegoi katika eneo la TIST la Igembe.

Imeandikwa na Joseph Gituma and William Mugambi wakiwakilisha wakulima wa TIST wa Kiegoi cluster

Sisi wanaTIST kutoka Kiegoi cluster, tunashuluru kwa kazi iliyofanywa na viongozi wa TIST kwa njia ya kuwatuma wanaohesabu miti kuja kuihesabu miti yetu. Tena tunawashukuru Wahesabu miti ambao walifanya kazi nzuri kwa muda usio mfupi. Katika Kiegoi, tuko tayaari kusoma ili tuweze kujihesabia miti wenyewe.

Akiongea katika mkutano wa cluster wa mwezi uliopita, Msaidizi wa Chifu wa eneo letu Bwana Mugambi Kalwilo, alisifu TIST kwa kuwa Kampuni yenye uwazi. Aliahidi kusaidia TIST. Sisi wakulima pia tuliahidi kufanya kazi kwa bidii kupanda miti mingine kwa mashamba yetu na kukuza TIST katika eneo letu.

Tukipanda miti mingi, na ikiwa mikubwa, ndipo tutapata pesa nyingi kutokana na soko ya hewa na ndivyo faida zetu kutokana na bidhaa zingine za miti zitaongezeka.

Kama chifu Mugambi alivyotupa mawaidha, “Ukisikiza viongozi hawa wanayofunza, utafaidika zaidi kimazingira, kipesa na kupunguza umasikini katika eneo hili”

Sasa tunangoja kupata vocha za malipo mwezi ujao. Tutafurahia kupata malipo yetu ya miti. Kwa wakati huu, tumesikizana kuwa Virginia Gakubia na Josphat Kiriwa watasoma na kusaidi katika kuhesabu miti.

Karaba Cluster – Pamoja twaweza kutimiza makubwa zaidi.

Imeandikwa na Mary Kathei.

Tangu Uchaguzi wa wawakilishi katika mkusanyiko wa cluster mwezi wa Decemba mwaka jana. Mazao ya Karaba cluster yameongezeka kwa asilimia zaidi ya hamsini. Mahudhurio ya mikutano yameboreka sana. Uhesabu wa miti ya vikundi vidogo humepangiwa vyema zaidi. Vikundi vidogo vimeongeza vitalu vipya. Vikundi vidogo vipya vimejiunga na TIST. Zaidi ya asilimia themanini ya wanaTIST katika hii cluster wanania ya kununua majiko ya TIST.

Hivi juzi, cluster ya Karaba ilijigawa na kuwa na cluster ndogo- Munyu cluster. Tutaishikilia, kuiongoza na kuisaidia hii cluster mpya inapokua na kupata nguvu.

Pia tunashukuru uongozi wa mzunguko ambao unatumika sana ndani ya cluster yetu. Tunampa kila mwanacluster nafasi ya kuiongoza na kugwana uwezo wake na zawadi ya kipekee ya kuiongoza.



Cluster ndogo ya Munyu katika mkutano wao wa kwanza.

Kufurahia mafanikio ya mavuno na ukulima bora.

Imendikwa na Dorothy Naitore

Msimu huu, tuna mengi ya kuadhimisha kwa sababu ya ukulima bora. Tunapongea kuhusu ukulima bora tunaongea kuhusu kuirudisha ardhi ilivyokuwa. Nina hadithi ya ukweli kuhusu Ukulima bora kugawana na wakulima wenzangu katika TIST. Msimu uliopita, nilitumia ukulima bora katika shamba lenye urefu wa meta thelathini na upana wa meta thelathini na nikavuna mifuko tatu ya mahindi. Kwa shamba lililobaki la ekari quota tatu, nikavuna mifuko miwili pekee. Ilijabisha kupata vuno kubwa zaidi kutokana na shamba lililokua ndogo kati ya mashamba haya! Ukulima bora hauwezi kulinganishwa na ukulima wa kawaida. WanaTIST kuliko mia nne ambao wameripoti kuhusu ukulima bora waliojaribu wana ripoti ya vuno

nzuri. Tungetaka kuwakumbusha kaka zetu na dada zetu katika TIST kuwa tuna shida ya mashamba kidogo. Shamba ndogo tulilionalo limeshinikizwa, kwa sababu tunahitaji mavuno mwaka nyuma ya mwaka kwani hatuwezi kuachilia msimu wote ata padogo bila ya kulima. Tunajisaidia na kulinda kesho yetu tunapohifadhi na kulinda rasilimali hii iliyothamanika kwa kutumia njia bora kama kutolima, kufunika ardhi na majani (boji) na kuachilia bila kulima tunapoweza. Kwa kulinda mchanga kupitia kutolima, kubadilisha mimea tunayobanda msimu kwa msimu, kilimo cha mseto, tunaweza kupata mavuno mema zaidi ya kufurahia kwetu na kwa watoto wetu.



Miti mizuri katika TIST: Miti ya matunda.

Katika TIST, tunapanda miti ya muda mrefu. Faida zinazokuja na haya kama matunda na karanga, zinaweza kuwa na thamana, sana tukipanga kuuza matunda na vitu vingine pamoja. Ilio hapa chini ni miti ambayo inaweza kuwa yenye faida kubwa.

Avocado (*Persea americana*)

Ikolojia: hupandwa maeneo yote yenye unyevu

Matibabu kabla ya kupanda: Lowesha mbegu kwa maji baridi kwa masaa ishirini na nne, halafu panda mifukoni moja kwa moja. Tumia mbegu ukishaitoa kwa tunda kwani mbegu hazikai muda mrefu. Miche inaweza kua kutokana na matawi pia. Kuota ni baada ya wiki tatu kwenda nne na nafasi kutoka mti mmjoo hadi mwingine iwe meta sita kupanda. Miti hii sana sana upandwa karibu na nyumba.

Matumizi: Kuni, makaa, chakula, kivuli, vipodozi, mafuta. Tunda ili ni lishe bora, lina mafuta, protini na vitamini. Gome la mti, majani na mbegu sumu kwa wanyama wanaokula majani. Miche inaweza kupandwa pamoja na mahagwe ikiwa midogo. Mti huu ni njia nzuri ya kupata pesa.

Guava (*Psidium guajava*, Kikuyu: Mubera)

Ikolojia: Inaweza kuhimili ukame lakini haiwezani na maji yasiyoisha.

Mbegu: Haihitaji kutayarishwa. Kuota: Wiki tatu. Nafasi kati ya miti: meta nne

Matumizi: Kuni, makaa, magogo, chakula, matunda ya

kula yaliyo na Vitamini C na Vitamini A. Huzaa baada ya miaka tatu kufika nne. Mbao hailiwi na mchwa. Matunda yake yaliyokauka na muafaka hupendekezwa kwa ugonjwa wa kuhara damu, ilhali majani na matundwa hutumika kuponya ugonjwa wa kuhara. Mafuta yake huwa na sifa za kupambana na moto inavyofaa. Majani na gome lake yaweza kutengeza mafuta ya kuponya shida za ngozi, vidonda na vidonda vya tumbo. Majani bado hutumika kwa kasoro katika utumbo, baridi na shinikizo la damu ndani ya mwili, kiwewe, uchungu, maumivu ya kichwa na maumivu ya viungo na misuli. Juisi hutumiwa kusaidia maumivu ya maini, kisonono, na kuhara. Kuchanganya mimea: hufanya vizuri ikichangaywa na mimea ya kuwalisha mifugo mfano mahindi, mtama na kunde. Mti huu unaweza kujaza eneo kwa maeneo mengine.

Mango (*Magnifera indica*)

Ikolojia: Hauwezani na mafuriko na unahitaji mchanga unaolowa vizuri. Unafanya vizuri kwa maeneo makavu.

Mbegu: Hazihitaji utabibu kabla ya kuoteshwa, ata kama kuzitoboa kunaweza kusaidia katika kuota. Mbegu hizi zinaweza kukaa kwa muda wa mwezi mmoja katikajoto la kawaida, mbegu moja kwa moja kutoka kwa matunda huwa nzuri zaidi kupanda. Matawi pia yanaweza kutumika kuotesha.

Matumizi: Kuni, matunda, lishe ya wanyama, lishe ya nyuki, kupunguza upepo, kufunikia ardhi, kivuli, kuhifadhi mchanga, gundi.

Miti mizuri katika TIST: Miti ya kiasili.

a. Prunus africana (Kikuyu: Muiri, Kimeru: Mweria) Mti huu wa kiasili hupatikana sana misituni. Mbegu hupatikana msituni, wakati wa msimu kavu. Kusanya matunda ya kahawia yaliyomuafaka kutoka kwa taji la mti au chini. Toa maji kwa kulowa majini masaa ishirini na nne, halafu osha juu ya waya wenye matundu. Eneza kwa safu lembamba mahali penye hewa na kivuli ili yakauke- lakini kwa muda wa masaa manne pekee.

Mbegu haikai sana kwa hivyo tumia ukishamaliza. Funika mbegu na majani yenye unyevu ili kupunguza maji yanayopotea wakati wa kuhamisha na kuhifadhi. Otesha kitaluni au mfukoni moja kwa moja. Mbegu huota baada ya wiki sita hadi nane.

Matumizi: Unaweza kufukuza wadudu kama chawa, viwavi (wanaoshambulia mimea) kwa kutumia mnuko wake. Maua yake yana nta ya kuvutia na poleni ambavyo ni chakula cha nyuki. Huwa na kuni bora. Dawa: dondoo la majimaji kutokana na gome hutumika kutibu Kansa ya kibofu. Majani hutumiwa kuvutwa na mwenye homa ama mlevi kuboresha hamu ya kula. Maji huongezwa kwa gome lililobondwa na majimaji haya mekundu yanatumika kama tiba la maumivu ya tumbo. Maji maji kutokana na gome yanaweza kutumiwa kwa mifugo. Kuzuia mmomonyoko wa udongo: miti inaweza kupandwa kwa mitaro na matuta kuleta kivuli na kupunguza upepo. Kuboresha mchanga: majani yanweza kutumiwa kufunika ardhi na kama mbolea ya kijani. Kurembesha; Huwa mti wa kivuli kinachovutia bustanini.

b. Peacock Flower (*Albizia gummifera*, Kikuyu: Mukurwe)

Mti huu hupatikana sana misitu ya mvua iliyo tambarare na iliyo kilimani na mazingira ya misitu.

Unaweza kuotesha mbegu iliyotibiwa au iliyoloweshwa. Mbegu zinazotoka kwa matunda moja kwa moja hazihitaji kutibiwa. Mbegu zilizowekwa kwa muda huloweshwa kwa maji moto na kuachwa kuwa baridi. Gome la mbegu laweza kuvunjwa kidogo ili kuharakisha kuota. Huota vizuri kwani siku ya kumi mbegu huwa imeota asilimia sabini hadi themanini. Mbegu zapaswa kukusanywa kutoka kwa mti ili kupunguza mashambulizi ya wadudu. Mbegu yaweza kuwekwa kwa mwaka mmoja u zaidi ukiihifadhi pakavu na pasipo na wadudu kwa kuongeza majivu.

Matumizi: ya mbegu hutumika palipo na maumivu ya tumbo na gome hutumika kwa ugonjwa wa malaria, Kudhibiti mmomonyoko wa udongo (mizizi hushikilia mchanga na kuzuia mmomonyoko wa udongo katika korongo), kivuli, kuboresha mchanga, hujulikana kama mti wenye matawi ya kufunika ardhi kwani matawi mengi huwa msimu wa kuangusha majani. Kurembesha (hupandwa mijini kwa sababu za kuvutia watu, kuonyesha mipaka, majani huharakisha kuiva kwa ndizi.

c. Olea africana (African wild olive, Kikuyu: Mutamaiyu, Kimeru: Muthata)

Mti huu hupatikana maeneo mengi, sana sana karibu na maji, mito na ata maporini. Ni sugu kwa baridi na kwa ukavu.



Mbegu kutoka kwa matunda hutumika kuotesha. Mbegu nzee yaweza kuloweshwa kwa maji baridi kwa masaa arobaini na nane.

Mbegu sanasana hutibiwa kwa kuvunja na kifaa au kwa kuachilia jiwe juu ya mbegu. Hii ni kwa sababu kutoa ngozi ya ndani ya mbegu husaidia kuota haraka. Mbegu huwekwa mahali pakavu na penye joto la kawaida kwa miaka michache.

Matumizi: Chakula: Bidhaa kuu ya mzeituni ni mafuta na matunda yanayoliwa. Lishe: mimea hii huliwa na mifugo. Hutmika pia kama kuni, mbao, makaa, miswaki ya meno na kurembesha. Kuimarisha: kuwa sugu kwa ukavu inapendekeza kuwa mti huu waweza kutumika kuimarisha maeneo Africa yenye ukame. Kurembesha: mzeituni huweza kurembesha ardhi/mazingira.

d. Waterberry (*Syzygium guineense*, Kikyuyu: Mukoe, Kimeru: Muriru)

Mti huu sana sana hupatikana misitu iliyo kwa tambarare na iliyo milimani. Hukua sana mahali penye

unyevu, mara nyingine ndani ya maji na hupatikana kando ya mito

Mbegu hazihitaji kutibiwa, kwani huota haraka na vizuri. Huota kwa asilimia themanini kufika tisini kwa siku za kwanza ishirini hadi hamsini. Kuotesha mifukoni hupendekezwa. Matunda huharibika kwa yanafaa kuokotwa mara moja yakishaanguka. Yanaweza pia kwa kutikisa matawi. Ukishakusanya, matunda yanafaa kuoteshwa mara moja kwani yanaweza kupoteza uwezo wake wa kuota yakikauka; kama ili haliwezekani, matunda yanaweza kuwekwa kwa siku chache kwa machujo ya mbao na ndani ya mikebe kwa chumba chenye kuingiza hewa tosha.

Matumizi: Chakula (Matunda), lishe ya nyuki, mbao, kuni/makaa, kivuli, dawa (tunda utumika kutibu ugonjwa wa kuhara damu, maji ya gome nayo hutumika kuzuia ugonjwa wa kuhara). Kumbuka gome ili lenye sumu limeripotiwa kuua watu, kwa hivyo tafuta ujumbe tosha kwa watu wenye uzoefu wa kutumia bidhaa za huu mti.

Meko bora yako hapa!!

TIST inaendlea kupanua mradi wake wa jiko. Manufaa ya jiko hizi ni mengi kam vile utumizi wa kuni ni kindogo sana hivyo basi kupata nafasi ya kuokoa fedha, zinasiadia kutoa moshi nje ya jikoni hivyo basi kunawiri afya yetu, kupunguza ongezeko la hewa taka hivyo basi kuimarisha mazingira yetu na manufaa mengine mengi

WanaTIST wana hamu na furaha kuhusu mpango wa TIST wa Jiko Bora. Wengi washajiandikisha kununua jiko bora. Kuanzia mwezi huu, TIST ina meko aina mbalimbali kutoka Envirofit na JikoPoa. Titisha jiko lako bora sasa!!

Nitawezaje kuitisha jiko bora kutoka TIST?

Hapa ni mwelekezo wa utakayofuata ili kuitisha jiko bora....

1. Chagua jiko lako: Kila cluster ina makaratasi yanayoonyesha aina zilizopo na bei. Angalia na uchague ni jiko lipi linafaa familia yako.

2. Itisha jiko lako. Pigia anayeweka vitabu na pesa za cluster yako ama mratibu wa Mradi wa meko na uitishe jiko lako. Usisahau kumpa:

- Jina la anyenunua
- Namba ya simu ya anyenunua
- Namba ya kikundi cha anyenunua
- Jina la cluster
- Aina ya jiko ambayo unataka kununua

Jikopoa

Envirofit Jikotosha

Envirofit G — Jiko la kubeba la rangi ya machungwa.

Envirofit Z— chumba cha moto cha chuma ambacho huingizwa katika jiko la udongo

Envirofit 2 -Nyongeza yenye jiko/chimney

Mud stove with ceramic fire chamber jiko la udongo lenye chumba cha moto kilichotengenezwa na kauri (LIKO TU Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo, Kilia, Kamwendei, Nthingini, Kagaene)

— Ni meko mangapi ya kila aina

— Unajinunulia au unanunulia mtu mwingine? Kama ni

mtu mwingine, peana jina na nambari yake ya simu.

Anayeweka pesa na vitabu vya cluster anafaa kuitisha meko kwa waratibu kila wiki.

Waratibu wa mradi wa TIST wa meko ni :

Charles Kamunya 0724 327 794

James Mwai 0715 460 195

4. Lipia: Malipo yanapaswa kukamilishwa kabla ya jiko kufikishwa

Kutuma malipo yako, tafuta nambari ya M-PESA ya eneo lako hapa chini na utume pesa zote kwa hiyo nambari. Ukilipia jiko, utapata ujumbe kutoka kwa safaricom ukikuhakikishia kuwa malipo yamemfikia kiongozi wa TIST kama ilivyo hapa chini

0708 672 118 – Charles Kamunya

0708 672 116 – James Mwai

5. Weka risiti zako: Ukituma pesa kwa MPESA, utapata ujumbe kutoka kwa safaricom wa kukuhakikishia umetuma pesa. Weka ujumbe huu kama rekodi. Ukipewa jiko, utapewa riciti ya kijikaratasi. Risiti ni muhimu wakati unaporudisha jiko linapokuwa na shida likikufikia.

6. Kufikishwa na kuchukuliwa kwa meko: Meko yaliyotengenezwa na kampuni yatafikishwa kwa cluster ya mnunuzi. Wapangaji watapangia masaa na mahali ambapo wakulima katika cluster yako watachukua meko haya. Meko yanafaa kufikishwa kabla ya siku saba baada ya malipo kuisha.

Meko ya kuundwa na udongo **yako tu mahali ambako kuna udongo mzuri wa kujenga meko.**

Kwa wakati huu cluster hizi ni: Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo Kilia, Kamwendei, Nthingini, Kagaene

Ukishalipia jiko lako la udongo, mjenzi wa meko atakupigia simu kabla ya siku saba kuisha ili mpangie masaa ya kujenga jiko lako.

KUMBUKA: Malipo nusu hayataruhusiwa kwa wakati huu. Tafadhali lipa pesa zote

Mazingira Bora



TIST

The International Small Group & Tree Planting Program
www.tist.org

Kikuyu Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Amemba a baratha ya Leadership Council ya TIST Kenya. Mbica ino yahurirwo thutha wa mucemano wa o mweri uria wari mweri 16-17 April 2012 kuria Simba lodge, Nanyuki.

Thiini:

Mbura niyurite ni mahhinda makuhanda miti ingi miingi. Page 2

Mirire miega kuria aria aruaru mirimu ya kahinda karaihu. Page 3

Mwihoko makiria niwonekete thiini wa cluster ya Kiegoi thiini wa Igembe. Page 4

Cluster ya Karaba – Turi hamwe tukahota maundu maingi. Page 4

Gukunguira magetha mega ma Kilimo Hai. Page 4

Miti miega ya TIST: Miti ya matunda. Page 5

Miti miega ya TIST: Miti ya ki-nduire. Page 5

Mariiko magirithie mari haha. Page 6



Mbura niyurite ni mahhinda makuhanda miti ingi miingi.

Kuhariria mimera niundu wa mahanda.

Tondu mbura niyurite, mimera niirabatara kuhandwo. Niundu wa bata gutigirira ati mimera niihariirio kuma tuta-ini niguu ihandwo mugunda. Mimera wambere niyagiriirwo kuharirio niundu wa mahinda maritu mugunda-ini, angikorwo mimera niitungatitwo wega iri tuta-ini na ikaheo maai makuigana na kiruru kiega noikorwo iri na unyihu wa indo ici yahandwo mugunda-ini. Mbere ya uthamitie mimera thii ukiminyihagiria maai niguu yahandwo ihoye kumenyera.

Mimera miega yagiriirwo;

Kionereria kiega, (ukiririkana mithemba ngurani ikoragwo na mauthi ngurani) kia mimera iria miega ya kuhanda.

- Yagiriirwo gukorwo na miri maita meri ma mumeru.
- Yagiriirwo gukorwo iri na hinya.
- Yagiriirwo ni gukorwo na miri miingi

Mimera miingi niikinyanagiria maundu maya iri na mieri 2 thutha wa kumera.

Kuhanda.

- Ndukainamanie mimera.
- Thiururukiria handu ha warii wa 30cm mugunda-ini.
- Eheria tiiri wa iguru.
- Eheria tiiri ungu uriku wa 30cm na uuige mwanya.
- Ikira nyeki 5cm kana wikire thumu.
- Ruta mumera karatathi-ini na ndugatinie tiiti uria winyitiriire miri-ini.
- Ikira mumera irima-ini.
- Cokia tiiri wa iguru uria ukurutite.
- Ikundi imwe citihuragia irima biu na njira ino niiteithagia maai ma mbura kuingira irimaini.
- Tiiri ucio ungi watigara nowuigwo na-kianda niundu wa gutega maai.
- Itiriria mimera maai.

Ningi ririkana kuhe miti yaku kahinda ga gukura na gutagania 3cm - 4cm. ungiaga kumitagania ndingikinyirwo ni maai na unoru uria wagiriire niundu wa gutharana na noyume kwa uguo rumirira utaganu uyu.

Mawega ma miti.

Miti ni ya bata muno kuri maria maturigiciirie ohamwe na njira ingi.

A. Kwagirithia maria maturigiciirie:

- miti niuhumbagira tiiri, njira iria imigitagira kuma kuri ruhuho na muiyuro wa maai.
- Mahuti maria magua thi nimongagirira unoru.
- Miti niyongagirira ugunyu wa tiiri na kuhumbira tiiri.
- Kugitira tiiri gukuo ni maai.
- Miri ya miti niiteithagiriria maai kuingira tiiri-ini wega.
- Miti niiteithagia guthondeka riera.
- Miti niituheaga kiruru kiega ohamwe na micii ya nyamu.

B. Indo cia gwaka na irio

- mbau cia gwaka
- ngu cia gwakia mwaki.
- Dawa cia kuhonania.
- Irio cia mahiu
- matunda.

Mawega maya nimabata muno kuri murimi thi yothe. Utuiria uria wikitwo ni TIST wonanitie ati arimi a Kenya nimonanitie bata wa matunda nathi na irio cia mahiu ohamwe na ngu cia gwakia mwaki kuma miti-ini iria ihandito ni arimi a TIST na magetha kuma Kilimo Hai iria cikinyaga 37,000 kuri o murimi. Hari na hinya kuheana githimi kia ugunyu kana riera riega hamwe na mawega maria maumanaga na wira wa TIST no nituuiguaga kuma kuri arimi aitu o muthenya.

Kwagirithia ukuria wa miti ni kwongerera bata wa ruriri.

Tawicirie uria tungika tungihanda miti miingi!



Mirire miega kuria aria aruaru mirimu ya kahinda karaihu.

Irire miega ni ya bata kuri ithuothe no makiria kuri aruaru.

Mirire kuri aruaru.

Mirimu ta cukari, cancer, mukingo na TB ni ya kahinda karaihu, uu nikuga ati niikaraga mwiriri gwa kahinda karaihu. Muno aruaru a murimu wa mukingo nimateaga uritu wa mwiri na ciana cigakura kahora. Kuharwo ni thina hamwe na mirimu mirimu iria ingi aruaru magiriirwo nigukorwo makiria wega niguu magie na hinya wa kuhurana nayo na mirire ino nia;

1. gwikira miiri hinya.

Irio iria iri kirathi-ini giki ni ta;

- ngima, ucuru wa muhia mwere na miaanga.
- Mucere.
- Waru na ngwaci.

Ririkana maguta nimakoragwo na hinya uyu.

2. Irio cia gwaka mwiri

- Nyama.
- Thamaki.
- Matumbi.
- Iria
- Mboco, njahi, njugu minji etc.

- njugu karanga.

3. Vitamins

Vitamin A muno ni ya bata kuria aria mari na murimu wa mukingo, vitamins nyingi na muno Vitamin A niconekaga na njira nene kuma:

- Mboga.
- Matunda na muno macungwa.
- Marigu
- Matunda maria mari na rangi wa yellow.

Indo ciakunyua.

aruaru magiriirwo nikunyua maai maingi maria magiriirwo ni gutherukio mbere gwa kahinda ka ndagika 10 na marekwo mahore na mekirwo handu hatheru. Maai matheru ni ma bata kuri andu othe a family na muno aria mari na mirimu ya kahinda karaihu tondu matingihota kuhurana namirimu ino ingia ta aria angi.

- Aruaru aria mari na kuharwo gwa kahinda karaihu no manyihirwo ni maai ma mwiri na kunyua maai no kumateithie muno. Ikira iciko cia cukari 6 na nuthu giciko gia cumbi kuri maai 1lt na wikire macungwa niguu magie na mucamo mwega.
- Ririkana njira huthu cia utheru. Angikorwo niurahariria irio cia muruaru, tigririra maoko maku nimatheru na irio niciathambio wega na ciarugwo wega na indo cia kuriira ni theru na cikaniara. Kurumirira nira ici no ugie na utiganu kuri aruaru aya.



Mwihoko makiria niwonekete thiini wa cluster ya Kiegoi thiini wa Igembe.

Mwandiki: Joseph Gituma na William Mugambi handuini ha arimi a Kiegoi.

Ithui amemba a TIST kuma cluster ya Kiegoi, nituracokia ngatho kumana na wira uria urarutwo ni arongoria a TIST gutuma atari a miti. Nituracokeria atari a miti ngatho aria marutite wira mwega. Thiini wa Kiegoi, nitwihariirie guthoma kwitarira miti.

Akiaria mucemano-ini wa cluster wa mweri muhituku, munini wa chifu wa gicigo giki Mr. Mugambi Kalwilo, niagathiriirie TIST nigukorwo na utheri wiraini wao. Nieraniire kunyitanira na TIST. Ithui turi arimi nitwahitukirie kuruta wira na kio

kuhanda miti ingi miingi migunda-ini iitu na tutheremie TIST. O uria twahanda miti miingi, na o uria yaneneha noguo tukwendia carbon nyingi na tugie na umithio munene.

Ta uria chifu Mugambi atutaarire, “gungithikiriria uria atongoria aya marathomithania, nimugutithika muno kwagirithia maria maturigiciirie, kugia na mbecha na kunyihia ukia.”

Nitwetereire kwamukira marihi mweri ukite na nitugukena muno. Tutanakinya hau, nitwitikaniirie ati Virginia Gakubia na Josphat Kirimi mathome gutara miti.

Cluster ya Karaba – Turi hamwe tukahota maundu maingi.

Mwandiki: Mary Kathei.

Kuma ithurano cia GOCC mweri wa December, cluster ya Karaba niikoretwo igikura na gicunji kia 50%. andu nimakoretwo migithii micemano. Utari wa miti kuri ikundi niwagirithitio. Ikundi nini niongereire tuta na inkundi ingi ikaingira TIST. Makiria ma gicunji kia 89% kia amemba a cluster nimarenda riiko ria TIST.

Ica ikuhi, cluster niciagayanirio guthondeka cluster ingi – Munyu cluster. Nituguthii na mbere na kunyitirira na kunyita guoko cluster njeru na guciteithia gukura.

Nituracokia ngatho ni utongoria uria uri thiini wa cluster. Niturahe mumemba kahinda ga gutongoria na kwonania iheo ciao.



Munyu Child Cluster first meeting.

Gukunguira magetha mega ma Kilimo Hai.

mwandiki : Dorothy Naitore

Kimera giiki, turi namaundu magukunguira niundu wa Kilimo Hai. Riria turaria uhoro wa urimi, turaria uhoro wa gwetha mugunda. Ndi na rugano rwega rwa urimi ruria ndirenda kumuhe. Kimera kuhituku, nindarimire Kilimo Hai mugunda-ini wa 30m by 30m na ngigetha mbembe makonia 3. gicigo-ini kiu kingi kia mugunda, nindagethire makonia 2. ni magegania kwona magetha maingi kuma mugunda munini! Uu ndungiringithania na njira cia tene cia urimi. Makiria ma amemba 400 a TIST nimonanitie magetha mega

kuhitukira Kilimo Hai. Nituraririkania ari na ariiu a ithe witu amemba a TIST ati turi na unyihu wa migunda. Migunda iria minini turi nayo iri ugwati-ini, tukiendaga magetha kimera thutha wa kimera, turi na unyihu wa migunda. Twiteithagia na tukagitira muturire wa ruciu riria twagitira indo iria turi nacio kuhituirira urimi mwega na kunoria tiiri na kuhanda miti migunda-ini. Notugie na magetha maingi ma gukunguira, maitu na ma ciana ciitu.



Miti miega ya TIST: Miti ya matunda.

Thiini wa TIST, nituhandaga miti ya gutura. Mawega maria mangi ma miti ino ta miti ya matunda na nathi noikorwo iri na bata na muno makiria twebanga kwendia matunda na indo ingi iria ciumaga miti-ini.

Makorobia

Makuraga kundu guothe.

Ikia mbegu maai-ini mahehu gwa kahinda ka mathaa²⁴ na huande nyungu-ini. Handa mbegu iria citaikarite muno. Nouciarithanie miti ino. Imeraga thutha wa 3-4 weeks na utaganu wagiriirwo gukorwo wi 6m. Miti ino ihandagwo hakuhi na mucii.

Miti ino ihuthagirwo na ngu, makara irio, kiiruru, kugemia na maguta. Matunda nimari hinya, mari maguta mega na nimakoragwo na vitamins. Gikoni mahuti na mbegu nimakoragwo na toxin. Noukurie mboco kuria kuri na miti ino.

Mbera

Niitiragia riuu.

Mbegu citibataraga guthondekwo mbere ya

kuhandwo. Cimeraga thutha wa 3weeks na utaganu ni 4m.

Niuhuthagirwo ta ngu, makara na ikingi cia gwake. Matunda nimakoragwo na vitamin C na vitamin A. uciaraga matunda thiini wa miaka 3-4. mbau citiriagwo ni muthua. Matunda maria momu nimo makoragwo mari mega. Mahuti na matunda nimahonagia kuharwo. Mahuti na makoni nimahuthagirwo guthondeka maguta ma ngothi naknina minyoo na irona cia nda. No uhande irio cia mahiu ohamwe na mbembe muhia na njugu. Mbera nocikure makiria na cihure mugunda.

Maembe:

ndukuraga kundu kuri na muiyuro wa maai na wendaga tiiri uri na maai.

Mbegu citibataraga guthondekwo onagutuika gwatura mbegu niguteithagia kumera. Mbegu nocigwo gwa kahinda ka mweri handu hari na urugari mwega. No uciarithanie maembe.

Niuhuthagirwo hari ngu, matunda, irio cia mahiu, kunyihia ruhuho, kiiruru ohamwe na kugitira tiiri.

Miti miega ya TIST: Miti ya ki-nduire.

Muiri

Muti uyu wa ki-nduire wonekaga muno mutitu. Mbebgugu niconekaga mutitu mahinda mariua. Ungania mbegu iria ciri cia gi-tiiri kuma matunda-ini kana unganie thi. Ruta ngothi na kurinda maai-ini mathaa 24, thambia na wanike waya-ini kwa mathaa matakirite 4.

Handa mbegu ici citikaraga muno citathukite. Cige na mahuti maigu riria uracikuuu. Cihande tuta-ini utagwikira maratathi-ini na nicikumera thutha wa 6-8 weeks.

Niuingataga tutambi ta gathua kuhitukira munungo wagu. Mahua nimakoragwo na irua riiganu ria kuhungwo ni njuki, niukoragwo ngu njega muno.

Dawa: maai maguo nimahuthagirwo guthondeka muthiori. Mahuti maguo nimahonagia homa na kuhotithia mundu kuria. Ongerera maai makoni-ini na makaonia nda ohamwe na guthondeka ng'ombe. Nimwega na kugitira tiiri na miti ino ikuragio mitaro-ini ikanyihia ruhuho. Mahuti ma muti uyu nimanoragia tiiri.

Mukurwe.

Miti ino ikuraga kuria kwaraganu na mititu-ini.

Mbegu cingikorwo cithondeketwo kana citari

thondeke no cihandwo. Mbegu njigu niciagiriirwo ni kumithio mbere ya cihanditwo. Ungienda kuiga mbegu ici noucirinde maai-ini mararu na ureke cihore. No urage ngothi ya guru niguo umiteithiririe kumera. Mbegu ici nicimeraga na gicunji kia 70-80% thutha wa thiku 10. mbegu ciagiriirwo ni gutuo kuma miti-ini. Mbegu nocigwo gwa kahinda ka mwaka umwe na uhake muhu.

Mahuthiro: nnjuki nicirutaga uuki muti-ini uyu, mbau, ngu dawa (niutumagirwo kuhonia nda na malaria), kugitira tiiri (miri yaguo nimirumu), kiiruru, kunoria tiiri na nouhandwo mihaka-ini na kuhotithia kwiruiithia marigu.

Mutamaiyu:

Muti uyu wonekaga kuria kuri namaai maingi na njuui-inina migunda-ini migunyu. Niwitiragia riuu. Mbegu njigu ninjega na kuhanda na noucirinde maai-ini kwa mathaa 48 mbere ya kuhanda.

Mbegu nicithondekagwo mbere ya kuhandwo niguo cihote kumera wga. Ciige handu hatari na ugungu kwa miaka iigana o una.

Mahuthiro: kindu kiria kia bata makiria muti uyu



urutaga ni maguta irio cia mahiu. Niurutaga maguta ma ngari, mbau na ngu. Mikinyi ya magego na ciuma. Niwiritragia riu na kwa uguo gukorwo uri mwega na gucokereria mitiu thiini wa africa. Niithakaragia mugunda..

Mukoe:

Muti uyu ukuraga kundu kianda-ini na mititu ya maai, muno ukuraga kundu kuri na ugunyu na ringi maai-ini na njuui-ini.

Mbegu nicibataraga guthondekwo mbere ya

cihanditwo na nicimeraga wega na gicunji kia 80-90% gwa kahinda ka matuku 20-50. kuhanda nyunguini nikuo kwega makiria. Mbegu nicithukaga na-ihanya kwa uguo no ciunganio citanaikara. Nouinainie muti niguo uguithie mbegu na ucihande o rio.

Mahuthiro: irio(matunda), uuki na mbau hamwe na ngu ona kiiruru na dawa(matunda nimahthagirwo kunyihia kuharwo) makoni nimari thumu na nomorage mundu, caria utaarani uria ukuuhuthira.

Mariiko magirithie mari haha.

TIST niithiite na-mbere na kunenehia mutaratara wa mariiko magirithie, mawega ma riiko riri nita uhuthiri munini wa ngu na kwa uguo kuhonikia mbeca, kunyihia ndogo ya riiko na kwa uguo kwagirithia ugima wa miiri iitu na kunyihia uthukangia wa riera.

Amemba a TIST nimakenatio ni mutaratara uyu wa riiko. Amemba aingi nimagurite na nimararihuthira. Kwambiriria mweri uyu, TIST niiraheana mariiko mithemba ngurani ta Envirofit na Jikopoa. Itia riiko riaku riu.

Uria ungiandikithia na witie riiko riaku.

Rumirira makinya maya nguo witie riiko riaku....

- 1. Thuura riiko riaku:** O cluster niigukorwo na maratathi maronania mariiko maria mari kuo na thogora wamo na niguo uhote gutua itua ni riiko ririku riega na mabataro maku.
- 2. Wiyandikithie kugia na riiko:** Araniria na muigi mathabu wa cluster yanyu naka murugamiriri niguo makwandikithie. Tigirira niwamahe uhoro wa riiko riria urenda.
 - Riitwa ria muguri
 - Namba ya thimu ya muguri
 - Namba ya gikundi ya TIST ya muguri
 - Riitwa ria cluster ya muguri.
 - Muthemba wa riiko riria urenda kugura

Mariiko maria mari kuo:

- jikopoa;
 - Envirofit jikotosha
 - Envirofit G – Orange portable model.
 - Envirofit Z – metal fire chamber insert for mud stove
 - Envirofit 2 pot/chimney attachment
- riiko ria ndoro ria riumba(maria maroneka thiini wa Ngariama, Kianyaga, Salama, Tunyai, Matakari, Pondo, Kilia, Kamwendei, Nthingini, Kagaene.

Muigana wa mariiko

Niwe ugukorwo ukigura riiko kana ni mundu ungi? Angikorwo ni mundu ungi, heana maritwa make na namba cia thimu.

Aigi mathabu nimagiriirwo nikuneana orders o kiumia.

Atabania a riiko Kuma TIST:

Charles Kamunya 0724 327 794
James Mwai 0715 460 195

- 3. Riha riiko riaku:** marihi magiriirwo nikuneanwo Mari mothe mbere ya unengeretwo riiko.

Gutuma mbeca na MPESA, uria namba ya thimu ya cluster yanyu na utume marihi mari mothe .Warikia kuriha, niukwamukira ndumiriri kuma Safaricom ati TIST niyamukira marihi maku. Aria maramukira marihi ni 0708 672 118 – Charles Kamunya
0708 672 116 – James Mwai

- 4. Riria watuma mbeca na MPESA,** niukwammukira ndumiriri kuma gwa Safaricom. Iga SMS iyo wega. Warikia kwamukira riiko riaku, niukuheo rithiti yakwonania niwagura riiko riu nariri na warranty.

- 5. Kwamukira na kwoya riiko riaku:** Mariiko mathondeke nimakarehwo cluster-ini yanyu. Atabania nimakuuga kuria maemba aria magurite mariiko maya makumoya. Mariiko maya magiriirwo nikuneanwo mbere ya thiku 7 thutha wa kugurwo.

Mariiko ma ndoro monekaga kuria kuri na ndoro ya riumba njega. Gwa kahinda gaaka, cluster ici ni Ngariama, Kianyaga, Salama, Tunyai, Matakari, Pondo, Kilia, Nthingini, Kagaene

Warikia kuriha riiko ria ndoro, muthondeki niakwaraniria nawe mbere ya thiku 7 niguo umenye riria aguthondeka.

Ririkan: marihi matari makinyu matigwitikirika gwa kahinda gaka. Rihamarihi mothe kwahoteka.

Mazingira Bora



TIST

The International Small Group & Tree Planting Program
www.tist.org

Kikamba Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Visa wa Utungoi wa Kanzu ya TIST nthini wa Kenya itina wa wumbano wa kila mwai ulai weekiwe matuku 16-17 mwai wakan mwaka uu(2012) utelini wa Simba Lodge naku Nanyuki.

Thiini:

Nikuie - kwoou ni ivinda yingi ya uvanda miti ingi mingi. Page 2

Liu museo kwa andu awau uwau utewauvoa. Page 3

Wongeleku wa wikwatyo nthini wa ngwatanio ya kiegoi ya kisio kya tist igembe. Page 4

Ngwatanio ya karaba - kwavamwe ni nituuvikia maingi. Page 4

Kutania ngetha nzeo na uimi wa kusuvia (Conservation Farming) Page 4

Miti miseo ya tist : miti ya matunda. Page 5

Miti miseo ya tist: miti ya kiene. Page 5

Maiko mongele useo. Page 6



Nikuie - kwoou ni ivinda yingi ya uvanda miti ingi mingi.

Kuseuvya mbeu undu wa kumithamya kuma kivuioni (Kumiumiisya)

Yu nundu mbua niyukie, miti ila yikivuioni yu nikwenda kuvandwa kula iseuviw'e. niuseo kikiithya kana miti ino yi kivuioni niyavandwa yu kwina mbua.

Miti itanamba uthamw'a niyendaa kumanyiw'a kwithiwa yiyumiisye. Ethiwa miti yi kivuioni ninasuviitwe nesa na kwikiwa usyaiisyonni muno ta kwa kungithw'a kaingi, kwithiwa muunyini maundu ala matethiawa yamina kuvandwa kithekani. Umiumiisya ola mavinda ma kungithya na kiw'u nikana itonye kumiia nikana onayavandwa vandu vena sua itonye kumiisya.

Mawonany'o amwe ma mbeu nzeo.

Mwolooto umwe wa mbeu nzeo (uililikana kana mithemba kivathukany'o yi mawonany'o kivathukany'o) sya kuvanda nita ino

- Munguthe waile ithiwa wi muasa mala eli ma mii
- Muthamba waile ithiwa wi mulumu
- Niwaile ithiwa wina tumili tunini eka mii ila milumu
- Miti mingi akavikiia mawonany'o aya yina myai ili.

Kuthamia.

- Kuthamya kuma kivuioni na kuvanda
- Kua miti iungye
- Vana muvilingo wina uthathau wa 30cm kithekani
- Umya muthanga wa iulu uliku wa 30cm na uyumba vu utee
- Ikiya nyeki uliku wa 5cm (Nyeki mbumu ivinda ya mbua na nyeki mbiu ivinda ya sua).
- Nyeki imwe nisyongelaa vuu.
- Umya mbeu (muti) ithanguni/mbisuni/mukeveni, ndukaumye muthanga ula ukwatiwe ni mii.
- Ikiya muti/mbeu yimani
- Vika na ula muthanga.
- Kaingi ndukavwike yiima vya tya yiteyusuu yitetheesye kiw'u kutwiikana yila mbua yaua.
- Ethiwa ve muthanga watala wumbiie kithyululu mutini wongeleee yiima ya ukwatya/kutwiikana kiw'u, vana niyithiwa ya utethyo ivinda ya sua.
- Ngithya mbeu/muti usu wamina uvanda

ingi lilikana kana kutaanisya miti na uthathau wa matambya atatu kana ana (3m-4m) nikana withie ndinethiwa na uyivu wa unou wa muthanga kana kuvivany'a nikana yiane na kuvituka neyithiwa na vinya.

Vaita wa miti.

Miti niyavata nthini wa mawithyululuko na ueti

I. Useo kwa mawithyululuko.

- Miti nivwikaa muthanga na kusiiia kukuwa ni nzeve na kiw'u.
- Matu na tuukava twavaluka twoaa na tuyongeleela unou wa muthanga.
- Miti niyongelaa wiu wa muthanga kwa kwikia muunyi ungu.
- Mii ya miti nikwatanasya muthanga ukethia ndukuwa ni kiw'u kana nzeve.
- Mii ya miti nitetheesya kiw'u kilika muthangani na kunyaiika kwa kiw'u thini muthangani
- Miti niseuvya nzeve ya vandu ta ukethia tikuvyu muno na kwina nzeve yina uthithu
- Miti nitheesya nzeve kwa kwosa nzeve itavisaa na kutunenga nzeve ila ivisaa
- Miti ninenganae muunyi na mawikaloo

Ueti wa miti wa syindu na liu.

- Wakini (ta kuseuvya ivila, makanda, miti yaaka)
- Ngu (Mwaki)
- Ndawa
- Liu wa andu na nyamu

Mauseo aya nimavata kwa aimi na nthi yonthe. Ukunikili ula uneekiwe kwa aimi ma TIST nthini wa Kenya woonanisyee kana useo wa matunda, mbindi, uithyo na ngu kuma mitini ila ivanditwe ni aimi ma TIST nthini wa uimi wa kusuvia (CF) yaina wongeleku wa ueti na yai vakuvi silingi 37,000/= kwa kila muimi. Ve vinya kwikia kithimo kwa kila useo ta uthithu, kwia kimeu, kuthesya nzeve na moseo angi ma miti wiani wa aimi ma TIST, indi nitumew'aa na kwona kila muthenya.

Kuendeesya uvandi wa miti ni undu wa vata kwa kila mundu. Kweesilye undu tutonya kwika tuivanda ithyonthi vamwe!



Liu museo kwa andu awau uwau utewauvoa.

Kuya liu ulawaile niundu wavata muno kwa uima wa mwii wa kila umwe na ti kwa awau meoka.

Mauwau amwe ta uwau wa sukali, Cancer, muthelo, uwau wa kithui(TB), nimowau amwe ala matavoa namethiawa na muisyo kwa mundu ateuya nesa. Mavinda maingi awau ma uwau wa muthelo nimaolaa uito na syana nileaa kwiana undu vaile. Kwituuu muno vatembeleki ni thina umwe withiawa na andu aya na mowau angi na nimendaa kuithw'a na liu ula waile wina moseo ala mamatetheeasya kukitana na mowau.

Liu wina moseo meaniu nita:-

1. Liu ula unengae mwii vinya

Mailu are nita Carbohydrates and nita

- Ngima (ila iseuvaw'a kuma mutuni wa mbemba, kana Muvya, mwee, manga kana uimbi.
- Musele
- Makwasi na maluu

Manya kana mauta nimongelaa vinya na musomo liuni.

2. Maliu ma kwaka mwii (Proteins)

- Nyama (ta sya ngombe, mbui, nguku, mavata, nganga, tuvuku)
- Makuyu
- Matumbi
- Yija
- Mbaa Mboso ta nzuu, mboso, ndengu, mbiinzi, nthooko
- Nzuu sya karanga (Njugu karanga)

3. Maliu ma vitamins

Vitamin A niyavata muno munduni wina uwau wa muthelo:- Vitamins mbingi munamuno ta Vitamin A nikwatikanaa kuma kwa:-

- Mbokani sya ngilini ta matu ma nthooko, manga
- Mbuka itheetw'e na matu ma mazungwa (ie makwasi)
- Maiu maue (matoke)
- Matunda munamuno ala mena langi wa yelo (Masungwa, mavavai, maembe, maiu meu, mavela)

Kunyw'a

Andu awau nimendaa kiw'u kingi. Kiw'u kya unyw'a nikyaile utheukw'a vandu vandatika iinyiva ikumi, kikaekwa kikathitha nakiyiwa kikikunike kinduni kitheu. Kiw'u kitheu nikyavata muno kwakila musyi nundu wa uima wamwii ti kwa ala awau oka onakutwika nimomethiawa matonya ukwatwa nimowau kwamituki nundu mwii woo ndwithiawa na vinya mwingi wa kukitana na tusamu (germs) ila ietae uwau.

Ethiwa muwau nikwituuu noumuseuvisye kiw'u kina sukali tusiko thathatu na kasiko nyusu ka munyu na kiw'u kitheu noyongela kiw'u kya masungwa kinini nikana kithiwe na musamo museo kusiia kuendee na kwasya kiw'u kingi mwiini.

Lilikana mawalany'o aya motheu.

Ethiwa wiseuvya liu wa muwau ikiithya moko maku nimatheu, liu ula ukua niwauthambya wathia, kuua uliu ukavya vya na miio ila ukutumia nimitheu na miny'au. kuatiia mawalany'o ma liu wina ueti kwa mwii na utheu nokuetekivathukany'o kinene kwa muwau.



Wongeleku wa wikwatyo nthini wa ngwatanio ya kiegoi ya kisio kya tist igembe.

Iseuvitw'e ni Joseph Gituma na William Mugambi vandu va Aimi ma TIST Kiegoi.

Ithyi ene TIST kuma ngwatanioni ya Kiegoi ntwitunga muvea kwa kwithinia kwa atangoi ma kanzu ya TIST kututumia athuimi (quantifiers) ala matalile miti yitu. Nituuutunga muvea ingi kwa athuimi/athiani aya nundu nimeekie wia museo kwa ivinda inini. Nthini wa Kiegoi twi tayali kuvundiw'a na kwika uthiani witu.

Munini wa Kivu Mr. Mugambi Kalwilo yila waneenie nthini wa wumbano wa kila mwai wa mwai muvitu ni wakathiii TIST nundu wakwithiwa yi ngwatanio ya kwika maundu mayo kyenini vala wanthani kukwata mbau TIST. Naitu aimi nitweeyathie kukuna wia na kithito na kuvanda miti ingi mingi

ithakani situ na kithekani kila kinenganitwe kwa TIST. Oundu tuvandite miti mingi, na oundu iendee na kwiana now'o mbesa sya kuta nzeve itavisaa siendee na kwongeleka na moseo/vaita ula ungi tukwataa kuma mitini. No'w munini wa kivu Mr. Mugambi waendee kututhuthya kana mweew'a undu atongoi aya meumutavya now'o mukwithiwa na vaita ki mawithyululuko, mbesa na kuola ukya kisioni kii.

Yu nitweele kunewa ithangu ya ndivi mwai wukite (payment voucher). Twina utanu kukwata ndivi ino. Kwavamwe nitweetikilanile Virginia Gakubia na Josphat Kirimi mamayiw'e iulu wa uthiani (Quantification)

Ngwatanio ya karaba - kwavamwe ni nituuvikia maingi.

(Ni Mary Kathei)

Kuma ngwatanio ino yayuva atangoi makanzu (GOCC) mwai we kumi na ili muvitu mosyao ma ngwatanio ino nimongelekete na vakuvi kilio kya 50 kwa iana (50%). Mbumbano sya kilamwai nisyithitwe iivikwa nivakuvi kila mundu na kuthianwa na kuvitukithw'a kwa tukundi tunini yu nikunzeo mbee na kwina mawalany'o maseo. Tukundi tunini yu nitwongelelee ivuio na tukundi tungi kulika nthini wa TIST. Kilungu kya miongo nyaanya kwa yiana kina wendi wa kuua maiko ma TIST.

Omituki ngwatanio ino ya Karaba ninongelekile na yeenthiwa na ngwatanio ingi ikwitwa Munyu. Nitukuendee na kukwata mbau ngwatanio ino ikiana na kuthathaa.

Nituuutunga muvea nundu wa utongoi wa kumanisya nthini wa ngwatanio .Nitunengae kila umwe mwanya wa kutongosya na kwonany'a kinengoo kyoo nthini wa utongoi.



Munyu Child Cluster first meeting.

Kutania ngetha nzeo na uimi wa kusuvia (Conservation Farming)

Iseuvitw'e ni Dorothy Naitore

Mbuani ino twina undu wa utania nundu wa nima ya kusuvia. Yila tuneena iulu wa nima ya kusuvia twiasya kutumia muunda waku kwa mauimi kivathukany'o kwa vamwe. Nina ngelekany'o imwe yaw'o ilangwenda uneenanisya na andu ma ngwatanio yakwa. Mbua nthelu nineekie nima ino ya kusuvia kisioni kya matambya miongo itatu kwa itatu (30mx30m) na naketha makunia atatu ma mbemba. Kilio kilakingi kyatiele kya itatu kwa inya kila ndyaaika uimi wa kusuvia nakwatie makunia eli tu. Ninatanie kwona ueti munene kuma kasioni kau kanini nundu neekaa undu uu kyenda umanya kana niw'o. Ino nitonya kwiananw'a na uimi wa kithyululu. Aimi ma TIST mbee wa 400

nimatungite livoti nzeo iulu wa uimi uyu wa jysyvia. Twienda ulilikany'a anaia na eitu aia maitu nthini wa TIST kana kwina unyivu wa itheka/miunda. Itheka ila nini itiele syina kuvinyiika kwingi nundu twienda uketha kila mwaka kuthi ula ungi na kula kutekuime nikunini muno. Twiitethya ene na kusuvia mithenya yukite yila tuusuvia itheka na mawithyululuko na nzia nzeo sya uimi. Ta kulea kukilya muthanga, kuvwika muthanga na matu, na kutia itheka vala vatonyeka. Kusuvia muthanga kwakulea kuuima/kuwukilya, kukuany'a mithemba ya kila wavanda na kwika uvandi wa miti notwithiwe na ngetha nzeo ya kutania ithyi na usyao witu.



Miti miseo ya tist : miti ya matunda.

Nthini wa TIST tuvandaa miti ya ivinda iasa, Mavaita angi kuma miti ino nita Matunda, mbindi ila nitonya kwithiwa syi sya vaita munene. Munamuno yilatwakwatana vamwe kumanthia ndunyu matunda aya. Vaa ve miti imwe ila itonya kwithiwa yina vaita munene.

Mavokato/ikolovia (avocado perseae americana) Muti uyu umeaa kula kwina kiw'u

Mbindi yayo iitawa kwa kuindwa kiw'uni vandu wa masaa 24, vanda indi nthini wa mukeve. Vanda ngii nzau nundu imee na mituki. Kyamea nokisikanw'e. Kumea kukuaa syumwa 3 kana 4 na syaile uvandwa utaanu wa matambya thathatu (6m). Kaingi ikolovia ivandawa ithyululukite musyi.

Nitumiawa ta ngu, makaa, liu, muunyi, mauta na kwanakavya. Yitunda yiunou mwingi wendekete ni mwii ona kutwika matu, makole/makavo, na ngii syinthiwa syi nthuku wa indo syaya. Miti ino yiminini noivandaniw'e na mboso, na muti uyu withiawa wi wa ueti mwingi.

Kivela (Guava, Psidium Guajava, Kikuyu: Mubera) Nimuti wumiasya sua no ndumiasya vandu kiw'u kitwiikene.

Mbindi syaw'o iyendaa kuiitwa itanavandwa na umeaa itina wa sumwa itatu na syendaa utaanu wa matambya ana (4m).

Nitumiawa ta ngu, makaa, milingoti, liu na matunda maw'o methiawa na Vitamin C na A. Muti uyu usyaa itina wa myaka itatu kana ina. Muti wayo nduisawa nimuthwa, Matunda waw'o maniiikwa mooma nimatumiawa ta ndawa ya kuiita munyili, namo matu na matunda nimatumiawa kuiita kwituuu. Mauta maw'o nimatumiawa kusiiia uwau ula utonya kwisila itauni, matu na makavo/makonde maw'o nimasuvasya mauta makusuvia kikonde kumana na itau, iea na inguu. Matu ingi nimatumikaa kuiita itau syanda kana ikua na kwambatwa ni nthakame, kwalw'a ni mutwe, woo na kwiw'a mundu atemwianie. Kiw'u kyamo nikitumiawa kuiita uwau wa itema (hepatitis), Kisonono na kwituuu. Nimuti wikaa nesa wavandaniw'a na mbemba, muvya kana nthooko. Ivela inonya saaingi kwenda vandu kiasi kya kusuya kisio kiiu.

Iembe (Mango, Magnifera indica)

Iembe iyumiasya kiw'u kingi syendaa muthanga wa kuny'aa na mituki.

Mbindi syaw'o iyendaa kuindwa mbee wa kuvandwa onakutwika kutila vaaya muthya nikutetheeasya kumea kwa mituki, mbindi noyiwe vandu va mwai muima onakau imeaa nesa yinzau, na noisinganw'e.

Nitumiawa kwa ngu, matunda, liu wa indo, liu wa nzuki, kusiiia kiseve, munyi, ngamu na kusuvia muthanga.

Miti miseo ya tist: miti ya kiene.

a. Prunus Africana (Kikuyu: Muiri, Kimeru: Mweria) Muti uyu kaingi wonee mitituni yoka na ngii syaw'o syonekaa mitituni ivani ya sua. Kolany'a ngii ila syina langi wa muthanga mukwatu kuma ungu wa muti. Inda vandu va masaa 42, thambya noyanika kisungini kya waya muunyi vandu va masa ana. Itina wavau vanda kuvuioni na nikumea itina wa sumwa 6 - 8.

Muti uyu nutumikaa kusiiia syindu ila syanangaa liu ta iinyu na syingolondo na muuke waw'o. Malaa nimanengae nzuki liu, Ngu syaw'o ninzeo muno, kiw'u kyaw'o kithiawa muiito wa postate cancer, Matu maw'o nimanunguwa kunenga mundu wendi wa kuya. Kiw'u kyawo nikitumiawa ta ndawa ya ivu na indo. Nisuviaa muthanga yavandwa iatianie nthini wa mitau. Matu nomatumiwe ta vuu na nyanakavasya muunda na noitumiwe ta miinyi wa muunda.

b. Peacock Flower (Albizia gummifera, kikuyu mukurwe)

Muti uyu kaingi withiawa ivauukoni na kula kwi mititu ya mbua na vakuvi na mititu.

Ngii syaw'o noiindwe kana ikalea kuindwa mbee wa kuvandwa munamuno ila syauma ukethwa iyenda kuindwa. Ngii ila siitwe syendaa kuindwa kiw'uni kimuutia nakiyekwa kivoe. Noutile muthya wa mbindi ithi kuitetheesya kumea na mituki. Ngii ithi imeaa nesa na ikuaa ivinda ya mithenya ikumi. Ngii ithi nisyendaa

kukethwa syiomutini kusiiia kwanangwa nitusamu ta ngulu. Ngii/mbindi ithi nitonya kwiwa vandu va ivinda ya mwaka umwe kethiwa nisyongeletwe muu kuisiia kulika ni ngulu na symbaluta.

Malaa nimatumiawa ta liu wa nzuki, niwunawa ngu, ukatuwa mbwau, ukaiita ithuma, ukaumwa ngamu kana nguluu vamwe nakwithiwa ngiisyaw'o syakimwa/syathiwa nitumiawa ta muiito wa ivu na makonde na muiito wa ndetema. Ingi nisuviaa kukuwa kwa muthanga nundu mii yayo nilumasya muthanga, nitumiawa kwa kuete muunyi, kuseuvya nzeve ya muthanga ila yitawa "Nitrogen", Nunoasya muthanga nundu niwita matu waw'o kaingi, nitumiawa kwanakavya ona kundu kwingi nuvanda nthini wa mataoni, nuvandawa mivakani naingi matumaw'o nimatumiawa kunda maiu nundu nimakalaataa kwiw'a kwamo.

c. Mukuyu (olea africana, African wild olivu, Kikuyu: Mutamaiyu, Kimeru: Muthata)

Muti uyu numeaa kundu kwi kivathukany'o ta vakuvi na kiw'u, nguumoni sya mbusi, kundu kutekuthungu. Niwumiasya sua na mbaa. Ngii nzau nitumiawa kuvandwa naethiwa ningii nguu nisii ndawa kiw'uni kithithu vandu va masaa ta 48. Ingi ngii isu nitonya kwatuwa na kw'oko kana ivia yikavingilitw'a iulu nikana syatuke ila itetheeasya kumea. Ngii sya muti



uyu nusiwi vandu va myaka kauta.

Utumiku: Ni liu - niinenganae mauta ala matumiawa ta liu, niliu wa indo nitumiawa ta ngu, kwatua mbwau, makaa, muswaki na nitumiawa kwanakavya. Nundu wakwithiwa wumiasya sua niwithiawa wimuseo wa kuvandwa kundu kula kumu na kuseuvya mititu ya kundu kwingi kwa Africa. Miti ino niyitiawa itonya kwanakavya withyululuko.

d. Waterberry (*Syzygium guineense*, kikuyu: mukoe, Kimeru: Muriru)

Muti uyu kaingi numeaa kula kwi mbua ya weu na mbua ya iima. Kaingi imeaa kula kwi kiw'u na kuthithu kwina kimeu kaingi nguomoni sya tulusi na syandani.

Ngii syaw'o iyendaa kuitwa mbee wa

kuvandwa na nimeaa nesa itekwaa na kilio kya 80-90% nthini wa mithenya kati wa 20 na 50. Kuvanda imwe mikeveni mbee wa kuvuia nikwithiawa kwaile. Matunda maw'o moaa na mituki na nimendaa ukolanw'a mavaluka oou kuma mutini. Ingi nouthingithye muti nikana mavalukange ukolany'e, na itunda yii yivandawa yumite mutini nikana yiikasye vinya wa kumea (yiyale kwanikwa yikany'aa) Matunda aya nomaiwe kikoni kya musumeno kosiiaa kwasya kiw'u vandu va mithenya minini.

Utumiku: Nitumiawa ta liu (matunda), liu wa nzuki, kwatua mbwau, ngu, muunyi, ndawa (matunda nimaitaa munyili nayo ikonde yaw'o niyiiiitaa wituuo). Lilikana kana ikonde yaw'o nisumu na niyuuua andu kwoou mundu niwendaa kuelew'a mbee wa kuutumia.

Maiko mongele uso.

TIST niyiendee kuthathasya walany'o wa maiko mongele uso. Vaita wa maiko aya nikuma utumi wa ngu nini ila ietae kusuvia mbesa ila itumiawa kuua ngu, Kuola syuki kaikoni na kuseuvya nzeve yavau ikoni ila ietae uima wa mwii kwithiwa wi museo na kuola nzeve ila itatumikaa nthini wa mawithyululuko na kwailya mawithyululuko kwa kila umwe na moseo angi maingi.

Ene ma TIST nimatanitw'e ni muvango uu wa maiko aya maseo. Ene aingi nimekiite saii maue maiko aya. Kwambiia mwai uyu TIST nikwinthiwa inengwane maiko meu kuma Envirofit na Jikopoa. Itya yaku oyuu!!

Ndonya kwitya yiiko yakwa ata kuma kwa TIST?

Matambya ala waile kuatiia nikana ukwate yiiko yii nimo aa:-

1. Sakua yiiko yila ukwenda: Kila ngwatanio yina mathangu monanitye maiko ala twinamo na mathooa mamu kwoou sisya visa isu noiamua niyiva ukwenda.

2. Itya yiiko: kunia mwii wa kinandu wa ngwatanio yenyu kana muandiki/mukwatanithya wa maiko witye kwa kunengane uvoo uu:-

- Isyitwa yaku
- Namba yaku ya simu
- Isyitwa ya ngwatanio yenyu ya TIST
- Namba ya kuua ya ngwatanio yenyu ya TIST
- Mithemba ya maiko ila mukwenda kuua

3. Mithemba ya maiko ila yu yivo

Jikopoa

Envirofit jikotosha

Envirofit G - orange portable model

Envirofit Z - metal fire chamber insert for mud stove

Envirofit 2 pot/chimney attachment

Mud stove with ceramic fire chamber (yivo kwa andu ma Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo, Kilia, Kamwendei, Nthingini, Kagaene meoka)

- Namba ya kila muthemba wa iiko
- Yiiko yii wiuu yaku mwene kana wiuua mundu ungi? ethiwa ni mundu ungi nengane isyitwa yake na namba yake.

Mwii wa kinandu wa ngwatanio niwaile ukuna simu na kwitya maiko aya kuma kwa mukwatanithya wa maiko kila kyumwa.

Akwatanithya ma TIST ma maiko ni

Charles Kamunya 0724 327 794

James Mwai 0715 460 195

4. Ivia yiiko yii: Ndivi nonginya yikwe yonthe mbee wa yiiko kuetwe.

Kuiva: mantha namba yenyu ya MPESE na uituma mbesa isu syi syonthe nambani isu, Wamina kutuma nuukwata utumani kuma kwa Safaricom winanitye niwatuma mbesa kwa muthukumi wa TIST ula ni

0708 672 118 – Charles Kamunya

0708 672 116 – James Mwai

5. Ia lisiti syaku: Watuma mbesa safaricom nikuetee utumani wonanitye ula watumia mbesa na nisiana. Kwandaia ndukaumye utumani uyu simuni. Yila wietewe yiiko yaku ukaetewe vamwe na lisiti ya ithangu. Lisiti ninzeo nundu ukethiwa ueteiwe iko yina nthina wina wonany'o wa lisiti noukuaniw'e kana ukaseuviw'a.

6. Kuetewe na kwosa: Maiko maseuvye makaetawe kwa ngwatanio ino. Aandiki ma ngwatanio yenyu makeeka mivango ya vala maiko meetwe na yila kila umwe wiisia yiiko yake mamina kuetwe ni akwatanithya ma maiko. Niwaile kuetewe iko yaku mbee wa mithenya muonza itemithelu wamina kutuma mbesa syothe.

Maiko ma yumba nivo kula muthanga kana kwina yumba iseo ya kwaka maiko. Kundu ta Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo Kilia, Kamwendei, Nthingini na Kagaene nikw'o kwina yumba twonete yitonya kwaka maiko ma ndaka/yumba (Mud Stoves)

Wamina kuiva wakiwe yiiko ya yumba, ula wakaa nukuvika/nimuunenany'a nake mbee wa mithenya muonza itethelu na muivanga winake yila ukuwakia.

Manya: Ndivi ya nyusu ndikwitikilika ivindani yii tui. Kwandaia wikulya uvie yiio mbesa syothe.

Mazingira Bora



TIST

The International Small Group & Tree Planting Program
www.tist.org

Kipsigis Version

An Environmental, Sustainable
Development and Community Forestry
Program.



TIST Kenya Leadership Council Members in a group photo after their monthly meeting held on 16-17 April 2012 at Simba lodge, Nanyuki

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Kokonyo Ropta- Saaitap minet tap Ketik.

Chopettap kolkeinik chepo ketik asi kemin.

Kokiberurech ak ropta, kayamke ng'uno kemin kolkeinik chepo ketik. Bo komonut en arawani, keker kele chopotin kolkeinik kap ketik kotomo kisipto en petit. Nyolunot en kolkeinik komomeyo ye kiib koba ole kiminen.(nai ile mapuspus ng'ung'unyek kou en betit). Ker ile kebos bek en betit aki bokokchi asista koluchi kolkeinik . En yutok as, kokackoik tayari kolkeinik kisipto koba ole kiminen.

Olenyolut kou kolkeinik kap ketik

Cheisipu ko koborunoik chepo kolkeinik che kororon.(Tienke terchinoik kap ketik.)

- Metit tap kolkeiyat konyolu ko nyilen oeng' tikityot.
- Nyolu kokim temet tap kolkeyat.
- Nyolunot kotindo tikitik alak chechang kolkeyat en tikityoy n'owon.
- Chechang en kolkeinik chu, kosiche tikitik chotong orowek en oeng' kokakorut.

Kosiptoet 'ap kolkeinik.

- Isipten kolkeyat kotonot.
- Tem keringet nepo 3o.cm.
- Icherun ng'ung'unyat tap barak.
- Icherun ng'ngunyek iko che kakong'et akinde komosto ake.
- Inde suswek keringet (5.0cm),(suswek che twonen yo momi ropta, ana ko che yomotin yo momi ropta.)
- Icherun kolkeyat en karatasit, ak irip komailyo tikitik .
- Inde kolkeyat keringet mutyo.
- Wekchin ngungunyat nepo barak koron asi kosip iko.
- Matinyit keringet ak ngungunyek. Inoniton ko toreti bek 'ap ropta kochut ng'ung'unek .
- Ng'ung'unyek alak che kakonget kindo taponwokik kap keringet asi kotoret bek che'roponi komarwai.
- Tumchin bek keringet ne kakominak.

Ibwat ile nyolu imin ketik en paroiindap mitaishek 3-4. Toreti inoniton ketik kosich omitwokik ak bek che yomotin. Yon korikchi ken

ketik , kobirchinge omitwikik. En let komeyo alak. So ingunon, isup paroiindap mitaishek 2.5 ana ko 3.

Maana nepo Ketik

Po maana ketik en oratinwek chechang, en poishnik, ak en emet kotukul.:

A. *Maana nepo ketik en emet:*

- Ketik ak sokek kotuche ngungunyek komala ropta an ko koristo.
- Sokek chepo ketik koteshin ngungunyek kobonbonit.
- Ketik kotese bek chemiten ngungunyek. Pose ketik bek chemondo en ngungek.
- Tikitik kap ketik kotoreti ngungunyek konamke asi mala bek.
- Toreti tikitikap ketik bek chemiten en ngungunyek kosungukan en oritit tap n gungunyek.
- Tese ketik bek chemiten en hewani. Niton koendelezoni atepet tap koristap emet .
- Ketik ko tese kororonindap koristo angamun kule koristo neya nepo(carpon di oxide) ako kokonech nekararan (oxygen.)
- Ketik kokonech urunok.

B. *Poishonikchok ak omitwokik:*

- Tuguk che kiteksen.(pokoinik, breminik..)
- Kwenik.
- Kerichok.
- Omitwokik ketik alak.

Komonut ichu kotoreti temik ak ng'wony komukul. En surpey nepo temik kap TIST Kenya ko koipor kole rurutik chepo lokoek ak pokoinik kap ketik en kenyaen ketik chekimin TIST kokotesak koik 37,000 shillings en temindet aketugul. Ui kenai rurutik tukul chekische en ketik chekimine en TIST lakini siche aketugul en eched faida nepo minet tap ketik.

En yoton achun, minet tap ketik kobo maana en emet ako yomeke keendelezan.

Ipwat ki nekimuche keyai angot kemin tugul kipagenge.



Omitwokik che nyolunotin en bik che miandos.

Amet ‘ap omitwokik che kororon konyolunot en ehek tugul, alakini saidi en bik che miandos.

Omitwokik chemogotin en bik che kikomionso kochulge.

Mianwokik cheu Diabetes, Cancer, HIV and AIDS, ak Tuberculosis (TB) ko mionwokik che koromen achi, imuch kopur en porto kokake. En koporunoik che chang, bik che tindo miando UKIMWI, koterterekitun missing kot, ako lagok kwai komaechekitun komyei. Miando moet (diarrhea) , ak mianwokik alak chechung, konyolunot en bik che tindo mionwokik chu kosich omitwokik che nyolunotin, asi kokimekitun.Omishet ne kararan koyomeken ko:

1. *Kokochi porto kimnotet.*

Omitwokik che konu kimnotet ko:

- Kimyet (stiff porridge made from maize), rongorik (che kokichul koyam unga.) kap pandek , pek, mosonik ak alak.
- Muchelek.
- Robwonik ak biazinik.

Mwanik che kichopen omitwokik kokonu kimnotet akichek.

2. *Che kitechen porto.*

- Pendo(teta, ing’okyet, artet ak ng’echiryet).
- Nchiyot. (chelelmo, , mud fish).
- Maayat.
- Cheko.
- Ng’endek., njorokek.
- Njuguk.

3. *Che konu vitaminik.*

Vitamin A ko toreti bik che tendo miando ‘ap UKIMWI. Che cheng en vitaminik, sanasana Vitamin A, kenyorunen:

- Sokek ‘ap Sukuma wiki.
- Koben/ Gloria.
- Matoke.
- Lokoek che tolelyonen(ndizyot, mananas, cheserep, maberek)

Yee bek.

- Bik che miandos konyolu koe bek koyamke ak porta .Bek che kiye konyolu kinde maat kot koboakakitya ke konor en ole tilil ake tuch barak. Bek che tililen kopo maana en familia tugul,lakini soiti kopo maana en bik che tindo mianwokik che terterchin,ngamun maimuche porwek kopoi mianwokik choton.
- Yon tindo chito miando ‘ap diahorea kimuche kechulchi bek ak sukaruk che toreti cheton che kokibet en porto. Chul kijikok ‘lo chepo sugaruk ak kijiket nusu nepo chumpik en litait ‘ap bek che tililen.Testen juice koanying’.
- **Ibwat tililindo nepo kawaida.**
Yon ichopchinin omitwokik chito ne mioni, itilil eunekuk koron ,kora itilil omitwokik komye koter germs,ak mwisho iro ile tililen tukuk che kepoishen en omishet. Kosibet ‘ap tililindo nito kotoreti missing en boset ‘ap mianwokik.



Kotesak komongunet en Kiegoi Cluster nepo Igembe TIST Area.

Nekosire Joseph Gituma ak William Mugambi kotononchin temik kap Kiegoi TIST .

Echek, membaek 'ap TIST en Kiegoi, kemwachini kongoi kondoik 'ap TIST council en koyokunet nepo kerik kap ketik . Kimwochini kongoi kora kerik chot en kasit ne kiyai en saait ne kikiten. En Kiegoi, kichopoti ngunon keyai keret neyonet echeken.

Konolole en tuyet nekopo arawanikonyek toretindet nepo kirwokindet , Mr. Mugambi Kalwilo, koitoron inendet TIST en kasit ne kokoyai ak kaporunet ne tindo.

Kiiyan inendet kotoret kompunit 'ap TIST en tugul tugul che takoyoe TIST.

Echek temik kiyoni kemin ketik en imbarenik

chok ak en olda tugul ole pitunat angamun ketik ko tukuk chepo maana

Keteseta kemine ketik koechekiton alak, en yoton achun kotesak rabinik che kesiche en aldaet 'ap bokoinik, makaa ak tukuk alak chekinyorunen ketik.

Kou ole kimwoundech Kirwakindet Mugambi "otoretoksei angot ogas ngalek chu mwowok kondoik chu bo TIST, en komoswek 'ap rapinik, omiwokik ak kekirinde pananda en koronito nyonet.

Kikonye inguno as lipanet nepo arawaniton chepwonen en vouchers.. Poypoyet neo missing kot kesich rapinik chuton.

Karaba Cluster – En kipageng'e kesiche che chang.

Ko sire inendet: Mary Kathei

Kongeten lewenet nepo Groupit 'ap Cluster Council (GOCC) en December nekokopata, kokotesak Karaba Cluster soiti kosir nusu chekopo arawet nikonyek. Toyoshek Chepo Cluster kokotesak . Banganat groupishek chemengen komyei. Kokotes groupishek chuton betishekchepo ketik . kokotesak groupishek chemengen en TIST. Chesire 80% in memberek 'ap Cluster komoche koal stoves chepo TIST.

Komolo , Karaba Cluster kokonyilak kosich cluster ake – Munyu Cluster. Kipendi ketoreti cluster not ming'in, yewendi koetu ako sich kimnotet.

Kimwoe kongoi en kondiset ne sungukoni en Cluster nenyonet. Kikochini membeyat aketugul kondochi cluster, asi keger talentaishek che terterchin .



Munyu Child Cluster meeting neta.

Poypoyet nekitinyen ngamun en ripet 'ap temisyet en imbarenik.

Kosire inendet Dorothy Naitore

Kenyini ketindoi ki neki poipoiyenchini amun en ripet 'ap temishet. Atinye arorutyet nepo aenke en membaek 'ap TIST . Kasarikonyek , kokokayai ripet 'ap temisiet en imbarenik. In the other three quarters of the land, I harvested only 2 bags. It was incredible to see so much more yield on from the smaller piece of land! This cannot be compared with conventional farming. Over 400 TIST members who have reported on their CF practice have reported good harvest. We would like to remind our brothers and sister sTIST members that we

are facing a shortage of land. The little land we have is under great pressure, as we need harvest year after year and have little space for fallow. We help ourselves and protect our future when we conserve and protect these precious resources by using best practices, including zero tilling, mulching and fallowing the land where possible. By protecting the soil by not tilling the land, rotating the crops we plant, and practicing agro forestry, we can have better harvests to celebrate, for ourselves and for our children.



Ketik che koron chepo TIST: Ketik ‘ap lokoek.

a. **Prunus africana** (Kikyuyu: Muiiri, Kimeru: Mweria, kikale:)

Ketiton kenyorunen osnet. Keswek kesiche en osnosyek, en kemeut. Icherun chetuen ana ko tolelyonen en lokoek kwak. Isten makanyat ‘apa brak ipoisyen bek, (inde logoyat bek en saishiek 24). Iluchin asista en ole saa’t en saaiyek 4.

Poishen keswek che takokororon .kinoinoe keswek ak sokek ‘ap ketik asi meto bek chekometin ngungunyek .Minchin keswek choton oritit tap betit. Tore betusiek 6-8 asi korut.

Boishonik : Isto tyongik che mengech kou: aphids, nematodes (che nome minutik) en nguundo netinye. Tindo mauek taptet nekararan neilipu sekimik asikotoret en pollination. Icheru kwenik che kororon .Kerichiek : Bek chekinemu en ketit noton kotoreti en kanyaet ‘ap prostrate cancer.sokoek kwai kotoreti en kanyaet ‘ap fever ak kotes maket ‘ap omitwokik en porto. Bek chechwaket kora kotoreti en kanyaet ‘ap moet ne lale ;Kimuche kebaen tug’a makandek chepo ketik choton. Toreti ng’ungunyek komala bek: Tese bonbonindo nepo ng’ung’unyek:Kimuche kepoishen sokek koter bek chemiten ngungunyek orit anan ko mbolea safi. Ketoton kochope urwet nekararan en compound.

b. **Peacock Taptet** (*Albizia gummifera*, Kikuyu: Mukurwe)

Kinyorunen ketit osnosyek chepo tulonok anan ko osnosyek chepo tirikwek. Kimuche kenyor kora en toponwokik ‘ap tosnosyek.

Keswek che ka kinde kerichiek anan kochetomo kimuche kemin. Keswek che tako fresh komomoche kerichiek .Keswek che kimoche

kekonor kindo bek che burkei akitya kekonor en ole kaitit. Rutunet ‘ap keswek ko kararn , 70-80%, en betushek 10.Yomekei kicher keswek en ketit kotoma korotchi tyongik che mengech keswek choton.Kimuche kekonor keswek akoi kotar kenyt ag’eng’e, en ole mamiten bek ak ole momi tyongik che mengech.

Ole kiboishoito:, Kwendet, bokoyot, temenet, Kerichiek (imuch konya malaria ak moet ne lole.) Ripet ‘ap ngungunyek (tikitik kwai kotoretti ngungunyek koma la bek), uronok, sokek chepo ketoton kotere bek chemiten ngungunyek komamanda, anan koip koristo, toreti en chopt ‘ap kiwoto , sokeke kwai koboosteni ruret ‘ap ndizinik.

c. **Olea africana** (African wild olive, Kikyuyu: Mutamaiyu, Kimeru: Muthata)

Ketit niton kenyoruen tapanwokik ‘ap oinoshek, anan ko kiwanchetoshek . Imuche koresisten kemeut anan ko koitityet.

Keswek che fresh che keboishen en minet. Keswek che yo’syotin kimuche kinde bek en saaishek 48.

Kinyoe keswek keoishen vice ne kim anan keboishen koik kechilen keswek.kimuche ke konor keswek choton en ole yamat , en kenyeshek che machang’

Boishet nenywan: Omitwokik:kiboishen en mwanik chepo omitwokik . Omitwokik chepo tuga anan ko neko. Kora keboishen ko: Kwendet, bokoyot, makaa, chepsitwet kolokutik ‘ap porta. Kitit niton kora kokorore emet.



d. Waterberry (*Syzygium guineense*, Kikyuyu: Mukoe, Kimeru: Muriru)

Kinyorunen osnosyek 'ap ropta en tulong. Rutu en ole miten bek anan ko olta tugul ole twon, kimuche kenyor en bek orit .

Keswek kwai komomache kinde kerichek yon tomo kemin. Imuchen imin directly kopa betit .Lokoek chechwaket kosib koyochekitun, basi koyomeke kisib kekonor komayachekitun .Imuche I cheru lokoek en ketit iboishen ketit anan itumtum teminik kap ketit.Lokoek kwai koyoche kekol

kotomo koyachekitun keswek chemiten oriti 'ap lokek choton; Angot ko moimukokse, imuche ikonor lokoek en ole twan anan ko en saw-dust che twonen en mbiret ne yatat barak.

Ole kiboishoito: Omitwakik(lokoek), Bokoinik, Kwenik, urwet, Ko kerickek(sana sana en miondo 'ap diaoreah). lbwat ile temet nepo ketoton kotindo sumu akomuche koip me'et, Yomeke kekur chito neingen akopo ketitnoton kotoret en ole kiboishoito ketit niton .

Kokoit Stoves che improvenotin!!

Kokopoyekitun membeek 'ap TIST en taunet 'ap 'Improved stoves' chepo TIST. Kokosignen membaik chechang alettap stovishek chutong'. Koname en arawaniton, kokoito TIST modelishek chuton Envirofit and Jikopoa. Order your improved stove now!!

Ayoytoi ano order neyun nepo improved jiko nepo TIST?

Ichochu ko maagizo chekkisupi asikeyai order nepo stove.

- 1. Lewen stove neimoche:** Each cluster will have brochures showing available models and prices. Look at the brochure and decide which stove is best for your family.
- 2. Igoiten order.** Birch inendet cluster accountability person anan ko stove coordinator asi ikoite order.lbwat ikochi cheisupu:
 - Kainet 'ap olindet.
 - Numbarit 'ap simuit chepo olindet.
 - Numbarit 'ap TIST chepo Cluster nepo olindet.
 - Kainet 'ap Cluster en TIST.
 - Aina chepo cluster ne-i-ole

Stoves chemiten en stock

- Jikopoa
- Envirofit Jikotosha
- Envirofit G —orange portable model
- Envirofit Z—metal fire chamber insert chepo mud stove.
- Envirofit 2 pot/chimney attachment
- Mud stove chetindo ceramic fire chamber (MITEN EN Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo, Kilia, Kamwendei, Nthingini, Kagaene KITYOK.)
- Numbarit 'ap tytip agetugul en stove.
- Lolchinike ana iolchini chito age? Angot ko chito age isir kainet nenyinet ak details tugul chechiket.

Bik chepo Cluster Accountability cheyoche I birchi en order chepo stove coordinators kil weekit.

TIST Stove coordinators:

Charles Kamunya 0724 327 794
James Mwai 0715 460 195

4. Lipan rapishek : Yoche kelipan rapinik(chekondok) tugul asi keipun stove.

lipan chepkondok, nyorun M-PESA chepo region ingun ak numbarishek cheisupu. .WheYon karilipan, koyokun safaricom ng'olyot kole keliponchi TIST staff member nekile:

0708 672 118 – Charles Kamunya
0708 672 116 – James Mwai

5. Konor receipts: lyokun safaricom message yon kari lipan rapinik via M-PESA. Kakikai saven message inion tun-ipoishen .Yon kakeipun stove, kekonin karatasit 'ap receipt.Po maana receipts en warranty yon tindo kasoro stove yon kiipun.

6. Delivery ak Pickup: Manufactured stoves kedelivereni en cluster nepo olindet. Coordinators koarrangeni ole kiipunen stoves ak saat ne kiipe.. Stoves kedelivereni en betushek 7 kongeten lipanet nepo chepkondo.

Mud stoves **kenyoru en ole miten temenet** En nguni clusters chemiten ko Ngariama, Kianyaga, Salama, Tunyai, Matakiri, Pondo Kilia, Kamwendei, Nthingini, Kagaene

Yon karilipan chepo mud stove, kopirun simoit tegindet nepo stoves en betushek 7 asio arrangen ole kitegen stoves ak saat .

NOTES: Partial payments cannot be accepted at this time. Please pay in full.