



TIST HABARI MOTOMOTO DECEMBER 2024

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Photo 1: Conservation Farming holes

In this newsletter, we are going to have four articles;

- (I) Conservation Farming
- (II) Crop Rotation
- (III) Indigenous Trees are Good
- (IV) Importance of Boundary Tree Planting

(I) Conservation Farming

Practicing Conservation Farming produces a greater harvest more reliably than traditional farming, especially when the rain is scarce. The holes help catch whatever rainfalls and make it available to the crop.

Following these Best Practices can help you get better yields this coming season.

Prepare the land: Prepare your land before the rains. Clear your plot of weeds and bushes. Do not plough.

Prepare your holes oblong (rectangle) shape: They should each be 15 cm wide, 35 cm long and 15 cm deep. Space holes at least 75 cm apart. Take some manure or compost manure and good topsoil and mix it together. Fill the hole with the mixture up to 5 cm below the surface.

Planting: When you plant maize seeds (1 -2 days before rains start), plant 4 seeds in the soil across the hole. If you are planting sorghum, plant 5-6 seeds at each end of the planting hole after a good shower of rain.

Cover the seeds with 2.5 cm of the rich soil and manure mixture. After this the soil in the hole should be about 2.5 cm below the surface of the field.

The space at the top of the hole enables water to get to the plants when the rains come. You do not need to use chemical fertilizer on the Conservation Farming plot. Your crops will still do better without chemical fertilizer if you put enough manure.

Weeding: Weed around the holes regularly. Do not weed the entire plot completely. Outside the holes, plants can cover the soil, keeping it cooler and keeping it from eroding in rain and wind. Just weed in and near the holes. Use a panga to clear weeds between the lines or spaces from one hole to the other. Weed frequently to keep weeds from going to seed and spreading in the holes.

Leave the weed residue in the plot to rot. This will help add soil fertility.

Post-harvest practices: Do not burn off the remains on the plot. Leave the residue on the ground so that they make the soil more fertile. Crop remainders can also be used for compost manure. Do not graze cattle in the plot.

Importance of Conservation Farming

Conservation Farming is a farming method that's important because it helps protect the environment and increase food security.

- It improves soil structure and fertility by adding organic matter. This helps to reduce erosion and land degradation.
- It improves the soil's ability to retain water, which reduces evaporation. This helps to reduce the risk of flooding and desertification.
- It can help to mitigate climate change by reducing greenhouse gas emissions. It does this by improving soil health, which increases the amount of carbon that's sequestered in the soil.

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- It can help to increase crop yields and reduce the risk of crop losses due to droughts, storms, floods, and landslides.
- It can increase biodiversity by diversifying the crops grown. It can also provide habitats for beneficial insects, birds, and mammals.
- It involves minimal soil disturbance, permanent soil cover, and crop rotation
- It improves the soil's ability to retain water, which reduces evaporation. This helps to reduce the risk of flooding and desertification.
- **Reduced Soil Erosion**; when **soil** is tilled and loosened, and residue is buried or removed, the potential for **erosion** increases.

(II) Crop Rotation

This is the growing of different crops in the same piece of land season after season (at different times). And crops grown in gardens with less fertility will yield less and look weak hence little harvest. This practice prevents and controls pests and diseases by breaking their life cycle. It also recovers or adds nutrients into the soil.



Photo 1: Conservation Farming holes



Photo 1: Maize crop cultivated through Conservation Farming

(III) Indigenous Trees are Good

Planting indigenous trees is very useful to our lands. This rain season while we are planting trees let's also consider the indigenous trees. Planting them can protect our farms from soil erosion and floods. The trees are quick to grow and cover the land as they shed their leaves. These leaves decompose and form organic manure that improves their growth and the soil.

Some indigenous trees are medicinal especially those with strong smell which scares away ants and mosquitoes. Local people often prefer indigenous species for a variety of uses such as charcoal, furniture, housing material, and medicine to mention just a few. Clearly, indigenous species are valuable. It is good for TIST Farmers to understand the value and encourage each other plan to plant more trees this season in our land and to increase the number of trees in our groves.

Indigenous trees are really good looking, and respected by the users, let's continue plant them

(IV) The Importance of Boundary Tree Planting

Boundary tree planting is where farmers plant trees along the boundaries of their land. There are several tree species that can do well with system of farming; they include gravelia, baobab, pine and the majority of the fruit trees. It's an important system of farming and encouraged among TIST farmers because it's environmentally friendly.

These trees planted along the boundary tend to act as demarcations amongst different farmers. Trees planted along the boundaries tend to act as windbreaks to the rest of the garden especially during periods of heavy rains and strong wind. They also act as a fence to the garden. These trees also generate a lot of income to the farmers through fruits harvested, carbon benefits etc. It would therefore be good all Farmers we will plant trees in our boundaries.

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TIST Values

As TIST Family we have our Values which most of TIST Small Groups know and practice. We always reflect on these Values and to ensure that we all are truly living by them. The success of TIST is based on the integrity and effort of individual members within TIST. What we can achieve depends on each of us following these Values;

- (i) *We are Honest*
- (ii) *We are Accurate*
- (iii) *We are Transparent*
- (iv) *We are Servants to each other*
- (v) *We are Mutually Accountable to Each Other and*
- (vi) *We create Low Budget/ cost, yet we achieve Big Results.*



TIST HABARI MOTOMOTO DISEMBA 2024

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Picha 1: Mashimo ya Kilimo Hai

Katika jarida hili, tutakuwa na makala nne:

- (I) Kilimo Hai
- (II) Mzunguko wa Mazao katika shamba
- (III) Miti ya Asilia ni Mizuri
- (IV) Umuhimu wa Kupanda Miti katika Mipaka

(I) Kilimo Hai

Kufanya Kilimo Hai hutoa mavuno mengi na kwa uhakika zaidi kuliko kilimo cha jadi, hasa kwenye maeneo yenye mvua chache. Mashimo husaidia kupata na kuhifadhi kila tone la mvua yoyote inayonyesha kwa ajili ya mazao.

Kufuata Mbinu hizi Bora kunaweza kukusaidia kupata mavuno mazuri msimu huu.

Kutayarisha shamba: Tayarisha shamba lako kabla ya mvua kunyesha. Safisha shamba lako kuondoa magugu na vichaka. Usitifuie ardhi yote kwa plau.

Andaa mashimo yako umbo la mstatili: Kila moja liwe na upana wa sm 15, urefu wa sm 35 na kina cha sm 15. Umbali wa nafasi ya mashimo angalau sm 75. Chukua samadi au mboji changanya pamoja na udongo uliotoka kwenye sehemu ya juu wakati wa kuchimba shimo. Jaza shimo na mchanganyiko huo hadi sm 5 chini.

Kupanda: Unapopanda mbegu za mahindi, panda mbegu 4 kwenye shimo. Ikiwa unapanda mtama, panda mbegu 5-6 ukizitawanya kila kona ya shimo.

Funika mbegu kwa sentimita 2.5 ya udongo wenye rutuba na mchanganyiko wa samadi. Baada ya hayo udongo kwenye shimo unapaswa kuacha nafasi ya sentimeta 2.5 kutoka usawa wa ardhi.

Nafasi iliyo juu ya shimo huwezesha maji kufika kwenye mimea wakati mvua zinaponyesha. Huhitaji kutumia mbolea ya kemikali kwenye shamba la Kilimo Hai. Mazao yako bado yatafanya vizuri zaidi bila mbolea ya kemikali ikiwa utaweka samadi ya kutosha.

Palizi: Palilia kuzunguka mashimo mara kwa mara. Usipalilie shamba zima kabisa. Nje ya mashimo ya mimea unaweza kuweka kingo kwa udongo ili kuweka ubaridi na kuuepusha mmomonyoko wakati wa mvua na upepo

Tunia panga kupunguza magugu kati ya mistari au nafasi kutoka shimo moja hadi jingine. Palilia mara kwa mara ili kuzuia magugu kwenda kwenye mimea na kuenea kwenye mashimo.

Acha mabaki ya magugu kwenye shamba ili yaoze. Hii itasaidia kuongeza rutuba ya udongo kwenye shamba lako.

Mbinu za baada ya kuvuna: Usichome moto mabaki kwenye shamba. Acha mabaki ili yafanye udongo kuwa na rutuba zaidi. Mabaki ya mazao yanaweza pia kutumika kwa mbolea ya mboji. Usichunge mifugo kwenye shamba la mimea

Umuhimu wa Kilimo Hai

Kilimo Hai ni njia ya kilimo ambayo ni muhimu kwa sababu inasaidia kutunza mazingira na kuongeza usalama wa chakula

- Kinaboresha muundo wa udongo na rutuba kwa kuongeza vitu vya asili. Hii husaidia kupunguza mmomonyoko wa udongo na uharibifu wa ardhi.
- Kinaboresha uwezo wa udongo kuhifadhi maji. Hii husaidia kupunguza hatari ya mafuriko na kuenea kwa jangwa.

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- Kinasaidia kupunguza mabadiliko ya hali ya hewa kwa kupunguza uzalishaji wa gesi chafu. Inafanya hivyo kwa kuboresha afya ya udongo, ambayo huongeza kiasi cha kaboni kinachowekwa kwenye udongo.
- Kinasaidia kuongeza mavuno ya mazao na kupunguza hatari ya upotevu wa mazao kutokana na ukame, dhoruba, mafuriko, na maporomoko ya ardhi.
- Kinaongeza bioanuwai (viumbe hai) kwa njia ya kubadilisha mazao yanayolimwa. Pia hutoa makazi kwa wadudu, ndege, na mamalia.
- Haisumbui udongo, inadumisha udongo wa juu ya ardhi pia unaweza kufanya kilimo cha mzunguko.
- Kinaboresha uwezo wa udongo kuhifadhi maji, ambayo hupunguza uvukizi. Hii husaidia kupunguza hatari ya mafuriko na kuenea kwa jangwa.
- Hupunguza Mmomonyoko wa Udongo; udongo unapolimwa na kulegezwa, na mabaki yanazikwa au kuondolewa, huondoa uwezekano wa mmomonyoko wa udongo kutokea.



Picha 2: Mashimo ya Kilimo Hai



Picha3: Mahindi yaliyolimwa kwa njia ya Kilimo Hai

(II) Mzunguko wa Mazao

Huu ni upandaji wa mazao mbalimbali katika shamba moja msimu baada ya msimu (kwa nyakati tofauti). Mazao yanayolimwa kwenye shamba lenye rutuba kidogo yatatoa mavuno machache na yataonekana dhaifu na utavuna mavuno kidogo. Utaratibu huu wa kupanda mazao tofauti kwenye shamba huzuia na kudhibiti wadudu na magonjwa kwa kuvunja mzunguko wa maisha yao. Pia hurejesha au kuongeza rutuba kwenye udongo.

(III) Miti ya Asilia ni Mizuri

Kupanda miti ya asili ni muhimu sana kwenye mashamba yetu. Msimu huu wa mvua wakati tunapanda miti tuzingatie pia kupanda miti ya asili. Kupanda miti hii kutasaidia kulinda mashamba yetu kutokana na mmomonyoko wa udongo na mafuriko. Miti hukua haraka na kufunika ardhi huku ikiangusha majani yake. Majani haya hutengana na kutengeneza mbolea ya asili ambayo huboresha ukuaji wa miti na udongo.

Baadhi ya miti ya asili ni dawa hasa ile yenye harufu kali ambayo inawatisha mchwa na mbu. Wenyeji mara nyingi hupendelea spishi za kiasili kwa matumizi mbalimbali kama vile mkaa, samani, nyenzo za makazi, madawa nk. Ni wazi kwamba aina ya asili ni ya thamani, ni vyema kwa Wakulima wa TIST kuelewa thamani ya miti hii na kuhimizana kupanda miti mingi msimu huu na kuongeza idadi ya miti katika mashamba yetu.

Miti ya asili ni mizuri sana, na inaheshimiwa na watumiaji, tuendee kuipanda kwa wingi.

(IV) Umuhimu wa Kupanda Miti katika Mipaka

Upandaji miti katika mipaka ni pale ambapo wakulima hupanda miti kando ya mipaka ya ardhi yao. Kuna aina mbalimbali ya miti ambayo inaweza kufanya vizuri kwenye mipaka kwa mfano; changarawe,mti kunuka, misonobari na miti mingi ya matunda. Ni mfumo muhimu wa kilimo na unaohimizwa kutumiwa na wakulima wa TIST kwa sababu ni mfumo rafiki wa mazingira.

Miti hii iliyopandwa kando ya mpaka inasaidia kutenganisha mipaka kati ya wakulima mbalimbali. Miti iliyopandwa kando ya mipaka husaidia kuzuia upepo kwenye shamba hasa nyakati za mvua kubwa na upepo mkali. Pia hutumika kama uzio wa shamba. Miti hii pia ni chanzo cha mapato mengi kwa wakulima kupitia matunda yanayovunwa, faida za kaboni, nk. Kwa hiyo ni itakuwa jambo jema na la busara iwapo Wakulima wote tutapanda miti kwenye mipaka yetu.

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MAADILI YA TIST

Kama Familia ya TIST tuna Maadili yetu ambayo wengi wa Wanavikundi Vidogo vya TIST wanayajua na kuyatekeleza. Daima tunatafakari juu ya Maadili haya na kuhakikisha kwamba sote tunaishi kulingana nayo. Mafanikio ya TIST yanatokana na uadilifu na juhudi za wanachama binafsi ndani ya TIST. Tunachoweza kufikia inategemea kila mmoja wetu kufuata Maadili haya;

- 1) Sisi ni Waaminifu**
- 2) Sisi Tunatoa Taarifa Sahihi**
- 3) Sisi ni Wawazi**
- 4) Sisi Tunatumikiana**
- 5) Sisi ni Wawajibikaji**
- 6) Bajeti Ndogo, Matokeo Makubwa**