

TRAININGS HELPING FARMERS MAKE AN EDGE IN THE DRY REGION OF THARAKA NITHI

By David Mugambi, GRADIF-K NRM& Climate Change Project Coordinator

Misery loves company, the old adage goes and the residents of Tharaka Constituency in Tharaka Nithi County can attest to this as their surrounding environment present a whole range of miseries; from the extreme high temperatures and dry weather to the dusty rocky conditions and the unpredictable rainfall that make farming and survival almost impossible due to the prolonged drought and the uncalled for soil erosion. And as some residents shift in search of better greener pastures others have opted to stay and be the remnants by engaging in serious agribusiness to earn a living. Meet Gatiria, a member of Tunyai /Mithigini network who is making lemonade out of the lemon as her farm flourish with life amidst the dry deserted life. In Gateria's farm different varieties of crops, crops that are well adapted to the environment flourish ranging from pawpaw,

bananas, green grams, cowpeas, mangoes, watermelons, oranges among other varieties.



A plot of cowpeas M66 variety at Gateria's Farm in Tunyai, Tharaka South

Gatiria explains that before embarking on farming food crops that are adapted to the environment, her food in the farm used to dry immaturely due to the harsh unfriendly weather and she often found herself with barely anything to eat. When GRADIF-K and DETRA came in 2010 it was like it was God sent in that she was in her tenth hour considering relocating to 'greener' pastures. The trainings offered proved hardy as they not only helped her know what to farm and where to farm it but also how to farm it. She also confesses of learning the modern technologies of farming that have really helped her reap bountiful in the middle of a crises. "When everyone else is speaking, singing drought and hardships, I am busy in my farm reaping volumes of yields, thanks to GRADIF-K and DETRA initiative," she asserts. Some of the methods and skills she attests of learning are: training on integrated farming, crop husbandry and climate smart technologies like ZAI PIT, drip irrigation, water harvesting among agribusiness, record keeping, agro forestry and fruit farming among other skills.

Initially she used to plant anything anywhere with no proper farming method being followed but with GRADIF-K and DETRA intervention she confesses to having learnt how to farm best and the evidence is shown by the different varieties tucked in different sections for better management with the right spacing measurements. Gatiria has also learnt on how to employ the different techniques like mulching, drip irrigation, minimum tillage among other technologies that have really helped her conserve the soil moisture and reap bountifully.

In her farm Gatiria attests to farming crops like pawpaw saying that they are well adapted to the environment as they do well in warm climates which provide the best environments for flowering and fruit setting. "Pawpaw farming doesn't require a lot of capital to start and to maintain and farmers can easily embrace its farming since it is profitable as crops grow throughout the year providing a stable income" she attests. She further expounds that for optimum production one should apply some potassium fertilizer for improved sweetness and rich colour. Gatiria cites proper spacing as key in farming pawpaw as if not properly spaced poor fruiting will result. She further advises that watering be done either in the evening or early in the morning as pawpaws require a lot of water. "When you water in the afternoon, water will become warm due to heat and when the plants take it they will wither and eventually dry," she warns.

Gateria also grows watermelons which she says require little maintenance as they are relatively resistant to diseases and pest problems and instead of fertilizer she uses and recommends organic manure and that as the fruit grows it requires less water saving the farmer the trouble of sourcing for water in an already dry region. For watermelons, she cites that less water will increase the sugar content and concentration leading to a sweeter melon.

Gateria's one reason for growing mangoes is that they can tolerate a wide range of climatic conditions from very hot regions to cool and dry and can also survive on swampy areas for a while. "In this region mangoes will do well during the dry season and they also survive during the very heavy rainfall that forms swamps for a while," she states and further advises that, "a slightly sloppy land is the best so as to enable run off of excess water and prevent water logging; steep slopes on the other hand cause excess drainage leading to both water and soil erosion.



Apple mango ready for harvest in Gateria's farm

Among other crops, she also grows green grams that she says do very well in the region and rears poultry, keeps cattle, goats and pigs and advises farmers to really utilize the little manure they get back into the farms for profitable yields. On a good season she takes home over 300,000Kshs which she attests to putting into good use by paying fees, reinvesting some back to the farm and comfortably providing for her family.

John Kirugi Muriungi also a member of the network acknowledges of the transformations in farming after GRADIF-K intervened as his ten acre farm is full of order and organized farming. “Initially before the interventions of GRADIF-K and DETRA, I used to broadcast seeds without even having cultivated my land and then wait for the crops to grow a thing that was characterized by poor yields as often little would thrive,” he attests.

Today Muriungi farm is orderly with green grams, cassava, sorghum, pawpaw, watermelon, mangoes, cowpeas, maize and beans.



He uses the latest technology to farm the crops that he says are well adapted to the region.



For sorghum he says that it can grow in both high and low potential areas in poor soils where other food crops like maize cannot thrive and that it can be grown without application of any fertilizer. “Sorghum tolerates drought better than any other grain crops and can also tolerate short periods of water logging meaning it does well in harsh environments where other crops like maize can’t grow,” he attests



Muriungi in his sorghum plot

He also attests that sorghum can be used as fodder when maize and other feed sources fail such that his livestock will not have to starve during the dry season. He strongly advocates for the sorghum fodder saying that unlike in maize where the lower leaves dry, sorghum's lower leaves don't dry as the plant matures making them retain higher protein content. Muriungi also grows cassava as it is a fast maturing crop and is high yielding, disease and pest resistant and that it provides food security for many households.

One unique thing about the prosperity of the network is that they work in unity in that when the group came together in the year 2010 a common agreement was made for them to meet the quality and quantity required by the market. For quality produce, they agreed to adhere to the trainings offered by GRADIF-K and DETRA, and for quantity they distributed the different

crops amongst the different members such that though individual members farm different crops at the end of it all they can meet the market demand in terms of volumes.

According to David Mugambi, the Natural Resource Management and Climate Change Coordinator with GRADIF-K, “GRADIF K initiatives have facilitated promotion of women empowerment, increased food security, household capital, social capital of the community and helped reduce over dependence on relief food from both the national and county government” he explains.