Biovision Africa Trust

THE ORGANIC FARMER

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Dear Reader,

As the short rains approach, prepare well to best make use of the rains and the resources at your disposal to obtain optimum yields. This edition features information on crops such as runner beans and why you should consider them this planting season.

We also share the experience of one organic farmer in Embu County, and the techniques she uses to harvest maximumly from her organic farm, especially crop rotation. Her story will inspire you to think of alternate crops to plant this season in your kitchen garden.

Potato farmers across the country have been incurring losses from persistent pests and weak seeds that cannot withstand adverse conditions. An expert working with the International Institute of Tropical Agriculture (IITA) explains the benefits of planting certified potato seeds and provides details of suppliers across the country.

This edition also features informative articles on poultry keeping, why farmers should diversify their flocks with guinea fowls and what makes a good poultry structure. Read on for these enriching pieces.

Farmers in Kisii County turn to value addition to better their lives

By Caroline Mwendwa

Small scale farmers especially those dealing in fresh produce that is easily perishable would benefit from learning new skills on doing value addition to make products of higher value and which have a longer shelf-life.

Anthony Mukhongo, a farmer field officer working with Biovision Africa Trust (BvAT) in Kisii, is championing initiatives to improve livelihoods of farmers in the area. In partnership with the Kenya Research Development Institute in Kisii County, the BvAT team has mobilized various farmer groups to undergo training on value addition of vegetables, bananas and honey. *"Vegetables and bananas are the main farm produce in Kisii and providing farmers with the skill to do value addition for improved nutrition within their families and to offer opportunities for income generation is a major way to change the lives of the locals for the better,"* says Anthony.

Three farmer groups have already been trained and are engaging in value addition of vegetables including *spinach*, *kales*, *amaranth*, *nightshade*, *spider flower*, *vine spinach* among others.

As Anthony explains, value addition of vegetables involves drying them through solar/electricity powered driers after harvesting, weighing the dry matter and packaging for sale. "A pack of 90 grams costs 200 shillings," he says. This process gives the vegetables a longer shelf-life and farmers are able to benefit from their farming enterprises without incurring high costs of post-harvest losses.

Another product that is made from the processed vegetables is soap. The farmers have also been trained on how to make soap from surplus vegetables. Apart from green vegetables, carrots and beetroots are also produced in the area. These farmer groups have been trained on how to make vinegar and food colour from carrots and beetroots. Powder made from carrots is also sold to bakeries to be used in baking cakes.

In addition to vegetables, the groups have also acquired skills in making the most out of bananas, which is commonly produced in the area. Fiber from the banana stalk is used to make tissue paper, sanitary pads, hanging lines for clothes and hair braids for women.

The liquid by-product from the banana stalk is a valuable material in composting farm manure and can also be used as an organic pesticide to manage pests in the farm. As Anthony explains, there is no part of the banana plant that is not useful. Even when the banana stalk is harvested, it can be used

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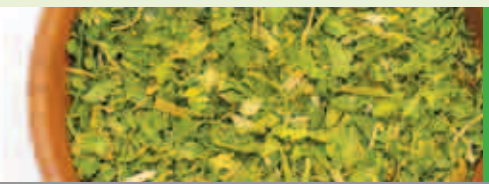

Vegetables value addition

Story on Page 1 and 2

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in whole without extracting the inner matter. In this case, the stalk is used as a portable garden. Holes are made on the stalk and plants can easily be planted in the holes as the stalk provides manure and water to the crops growing from it.

The bananas on the other hand, once harvested, are peeled, and the peels are dried and ground to make a flour that has been proven to be highly medicinal especially in management of conditions such as high blood pressure, ulcers and asthma. This powder can also be used when cooking tea in place of tea leaves.

The white starch inside is also dried and ground to make flour that is used in making foods such as chapati, ugali and cakes. Alternatively, banana crisps can be made from the bananas, by chopping them into thin pieces and deep frying them to make a healthy snack, mostly preferred among gluten sensitive consumers.

Apart from food produce, farmers have come together to take other enterprise opportunities such as collecting rabbit urine, which is a major biological fertilizer, used by farmers practicing organic farming. *"At the moment, one group has a total of 10,000 litres of rabbit urine,"* says Anthony. The major challenge however lies in matching markets for these products to their supply. Anthony says that all these products are in high demand especially in the urban areas, but the producer to markets linkages are not in place. This shows that, there is so much potential for farmers to venture and thrive in agribusiness, all they require is support through training and linkage to markets. *"With proper market systems, farmers will thrive in these enterprises and farming will be much more rewarding even for the small-scale farmer,"* he concludes.

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https://infonet-biovision.org/EnvironmentalHealth/Premises-food-value-addition

Growing runner beans for improved food security

By Beritah Mutune

Runner beans *(Phaseolus Coccineus)* commonly called the butter bean is a plant in the legume family, Fabaceae. Although it is traditionally grown in the highlands of Eastern Africa, it has received little research attention in the region including Kenya. If awareness is done on the nutritional and economic benefits of growing this plant, this can greatly help improve the nutritional and food security of most smallholder farmers in Kenya.

Why plant runner beans?

It is important for farmers to be aware of the benefits of planting the runner beans in their fields. Runner beans are highly valued as an export crop due to their good taste, richness in proteins, low carbohydrates, good fat content, magnesium and other micro-nutrients. Their yield potential is over 5 tons/ha, they fix nitrogen into the soil and have higher net benefit than bush beans.

Requirements for growing runner beans

1. Attitudes and climate

Runner beans are known to do well in cold attitudes (1500 m above sea level). Growing of runner beans is easy in the tropics.

2. Soil and soil fertility

Runner beans like most of the beans do well in warm (15°C -25°C), well drained, well ventilated and fertile soils. Compost or animal manure should be added to the soil before planting. Worth noting is that beans and other legumes don't require nitrogen rich soils because they release nitrogen to the soil. Ideally organic fertilizers rich in phosphorous should be used to dress the soil before planting and during growth.

3. Land preparation

Growing runner beans begins primarily as usual by cultivation where ploughing of the land is done to achieve a fine tilth. The soil should be dry to avoid formation of hardpans resulting from compaction when done on wet soil. The land is then left for a period of 3-4 weeks to solarize. This process exposes soil-borne pathogens to high solar temperatures.

Afterwards, the land is then harrowed to a fine tilt. It can be 'decorated' using a bed maker so as to level it hence achieving flat tops. The beds are raised 45 centimeters high running parallel to each other at a spacing of 60 centimeters.

4. Planting and spacing

Once the soil is well prepared, the beans are planted directly to the soil at a depth of about 5 cm and 5 cm apart. Since runner beans are climbers, strong poles of about 2 meters should be erected and joined across to form a Tee before planting to support the climbing plants. Other methods of support, like a fence or some form of a tent-like structure of support, can be used depending on the area where the beans are being grown. The plants do well in full sun and should not be shielded from the sun. Care should be taken to give enough space between plants to allow flowering and high yields. Runner beans are planted 0.2 meters apart and 1.5 meters between rows. The beans germinate 2 weeks after planting and they grow to a height of more than 3 meters but for the sake of picking the pods, it is coiled to grow downwards. It is advised that no other plants be planted in the same plot as runner beans since their big leaves would shield other plants from the sun.

Continued from Page 2

Watering

Runner beans require enough water for them to grow well. Use of drip lines for supplying water should be laid on the raised beds in double rows spaced at 0.3-0.4 meters inter rows in times when they are planted off-season. Drip lines; 0.15 meters interval discharge are suitable. Furrows should be made along the drip lines at a depth of 2mm. Mulching can be done to help conserve moisture.

Supporting runner beans

Runner beans as the name suggests are climbing vines and need to be supported. This should be done after the vines/stems appear during the vegetative stage. Knitting thread or manilla thread should be fastened on supporting posts in a crisscross manner. The vines then use the mesh to support themselves. Proper weeding and pest management is important to ensure that they are not competing for nutrients or getting destroyed.

Harvesting runner beans

Runner bean farming usually takes 10-15 weeks within which the crop is ready for harvest. It is important to note that maturity of plants depends a lot on the climatic conditions e.g. temperature and water and therefore the farmer should be aware of how the crop would look like at maturity. The pods of the runner beans would be approximately 0.2 meters when ready. Note that if not picked the plant stops flowering.

Pests and diseases which affect runner beans

The most common pests and diseases on runner beans include blight, slugs and aphids. Some diseases such as blight are usually as a result of poor seed selection. Aphids can be controlled and managed by pouring a lot of water on the plants preferably using pipes.

Beritah Mutune is a crop scientist working at Icipe. Bmutune@icipe.org

https://infonet-biovision.org/PlantHealth/Crops/Beans

Diversify poultry farming and start rearing the helmeted Guineafowl

By Karanja Daniel

In Kenya, the helmeted guineafowl *(Numida Meleagris)* is the most common and widely domesticated among the guineafowl bird family. The birds are primarily kept for their nutritional value. Studies show that protein-packed guinea fowl eggs are 12 per cent richer in protein compared to chicken eggs with the egg white having higher amounts of proteins, providing essential amino acids for the body.

What makes guinea fowls valuable

Guineafowl feathers are widely used in decorative crafts and jewelry for their characteristic white circular spotted pattern on a backdrop of brown or black feathers. Thanks to their noise, Guineas protect the compound from snakes and other small rodents by sounding out loudly. These birds are terrestrial, and are highly likely to run rather than fly while making loud harsh calls when disturbed.

Rearing guineafowl is not capital intensive. Since they blend well with chicken, thrive in free range and feed up to 90 per cent on insects, picking green leaves and grass, an interested farmer might want to create adequate space to introduce some in their flock. Guineafowls are equipped with strong claws to scratch loose soil for food just like most chickens. They prefer perching outside at night hence setting up a structure might be for laying eggs and perhaps taking care of the keets (young ones of guineas). The structure can be made from recycled materials including canvas/tarpaulin, iron sheets, fitos and offcuts/timber. The cost of making a structure will vary depending on size and materials used.

Unlike chicken, ducks and other species of poultry including turkey, guinea fowls are not considered good mothers. For this reason, guinea eggs should either be hatched by broody chicken/turkey or artificially using an incubator. Generally, eggs hatch after 28 days, but some may take a longer period or hatch by day 26. Helmeted guineafowls are seasonal breeders, they tend to breed highly in warm and fairly dry months. They rarely fall sick and are hardly attacked by pests although regular deworming is encouraged as well as vaccination against common poultry diseases especially fowl pox and Newcastle diseases.

Guineafowls are kept for a variety of reasons including their ornamental value. However, in recent past, the demand for their meat and eggs has been on a sharp rise among urban dwellers with the cost of one bird depending on weight and size ranging from Kshs 1800-3400 whereas keets cost between Kshs 350-900 per bird. An egg costs up to Kshs 150. It is important to note that one requires a license from the Kenya Wildlife Service (KWS) that costs Kshs 1500 and is renewable annually to start rearing guinea fowls.

Use locally available materials to construct a good poultry house

By Mourice Barasa

When planning to start poultry farming, one of the major factors a farmer should consider is investing in a good poultry house. A well-designed poultry structure reduces the costs associated with preventing predators, pest and disease control as well as managing climate-related issues that affect production and growth of birds. Additionally, it helps a farmer to easily clean, refill drinkers and feeding troughs including monitoring bird behavior for early signs and symptoms of discomfort, pests and diseases and act as needed. On the flip side, a poorly designed poultry house exposes birds to vulnerabilities as a result of extreme weather conditions, disease outbreaks and regular predatory attacks. So, what entails a good poultry structure?

Good poultry house

A good poultry house does not have to be complicated and costly. Firstly, a farmer has to be aware of the number of birds they intend to keep. This will ensure effective management of the available space. Secondly, the availability and affordability of locally sourced materials is key when one is preparing to put up a poultry house and lastly, a farmer should weigh their options with regards to the kind of birds they plan to keep. Different birds have different requirements.

To house 100 chickens for instance, one should at least spare 200 square feet, or a rectangular space measuring at least 3.2 meters by 6.5 meters. However, these measurements are highly dependent on the size and age of the birds.

Foundation: Make a foundation of about 30-40cm below the ground surface for strong support of the structure if using bricks/blocks and mortar. Raise the foundation to about 10-30cm above the ground depending on soil type and other factors like drainage. Alternatively, one might use poles and/or timber/ offcuts flooring to raise the foundation.

Flooring: There are two types of floors.

- ***Deep litter system:***
  Birds are kept directly on the floor, preferably concrete to allow easy cleaning and disinfection. Litter material can be placed 2-4 cm deep. Litter materials may include; wood shavings, rice husks, hay, chopped up straw, crushed maize cobs or shredded paper. Chicken are susceptible to diseases such as coccidiosis when kept in wet and dirty environment. Clean the chicken house and add fresh litter at least once after every two weeks.

- ***Slatted floor system:***
  Birds can be kept on raised floor made of either plastic or timber slates. For wooden slates, one can measure a width of 1.5 cm and a height of 4 cm laid 2.5 cm apart. Plastic slates can be obtained in select stores locally or a farmer can place an online order.

Doors: Fix doors of about 180cm by 75cm depending on the size of the structure. Ensure the door opens outward especially for deep-litter poultry structures.

Roofing: Shelter the structure with a roofing material of your choice. If using iron sheets, ensure that the nails well support the sheets to prevent risks of wind blowing them away and/or leakage from storm or water. Fix transparent iron sheets strategically to allow enough light in the house.

Lighting: A farmer should ensure there is adequate natural light in the poultry house. Transparent roofing sheets can be fitted to improve lighting. Although hens appreciate privacy when laying eggs, one might want to manage light penetrating the laying boxes. Controlling the amount of light in the poultry house can potentially improve egg production and growth. When using artificial light, hang the bulbs from the roof at about 150-250cm above the floor.

Ventilation: Poultry units should have adequate amounts of fresh air circulation. Depending on the height of the structure, one should install ventilation wire-mesh openings in front and at the back of the house. Measurements may range from anything between 15-60 cm wide and of varied length as a farmer may please. Ensure the ventilation can keep away rodents and snakes. In hot areas, farmers can choose to have wider ventilation spaces. During cold weather, cover ventilation with curtains to manage and maintain warmth especially when housing chicks.

Perches: Chicken roost and sleep above the ground. Provide bars or branches of 2 inches diameter and fix them horizontally, at least 25-40 cm above the ground, depending on size and breed of chicken. The provision of perches for birds satisfies a natural behavioral activity, additionally birds tend to drop more frequently while perching. Place feeders and drinkers away from perching area to avoid contamination from droppings. Diseases and parasites are highly likely to attack poultry resting on the floor and in contact with dirty litter. A 100cm perch may roost up to 5 birds. Perches are best made of bamboo or rounded sticks *(fitos)*.

Chicken drinkers and feeding troughs: Suspend drinkers and feeding troughs approximately 5cm above littered floor to avoid contamination. Ensure the number of drinkers and feeding troughs are enough to avoid overcrowding when adding some fresh water or feed.

Of importance to note is that birds need fresh air and lots of sunshine to thrive. Provide an area for the poultry to take dust baths during the day. In areas where birds of prey are a problem, a farmer should consider covering the open area above with wire mesh.

Conclusively, if poultry farming is done right, by starting with a good poultry structure, the venture has a potential of empowering farmers financially and nutritionally by providing an extra source of proteins to their families. What are some of the innovations in poultry housing that can be leveraged to enhance productivity? Please share and let us learn collectively.

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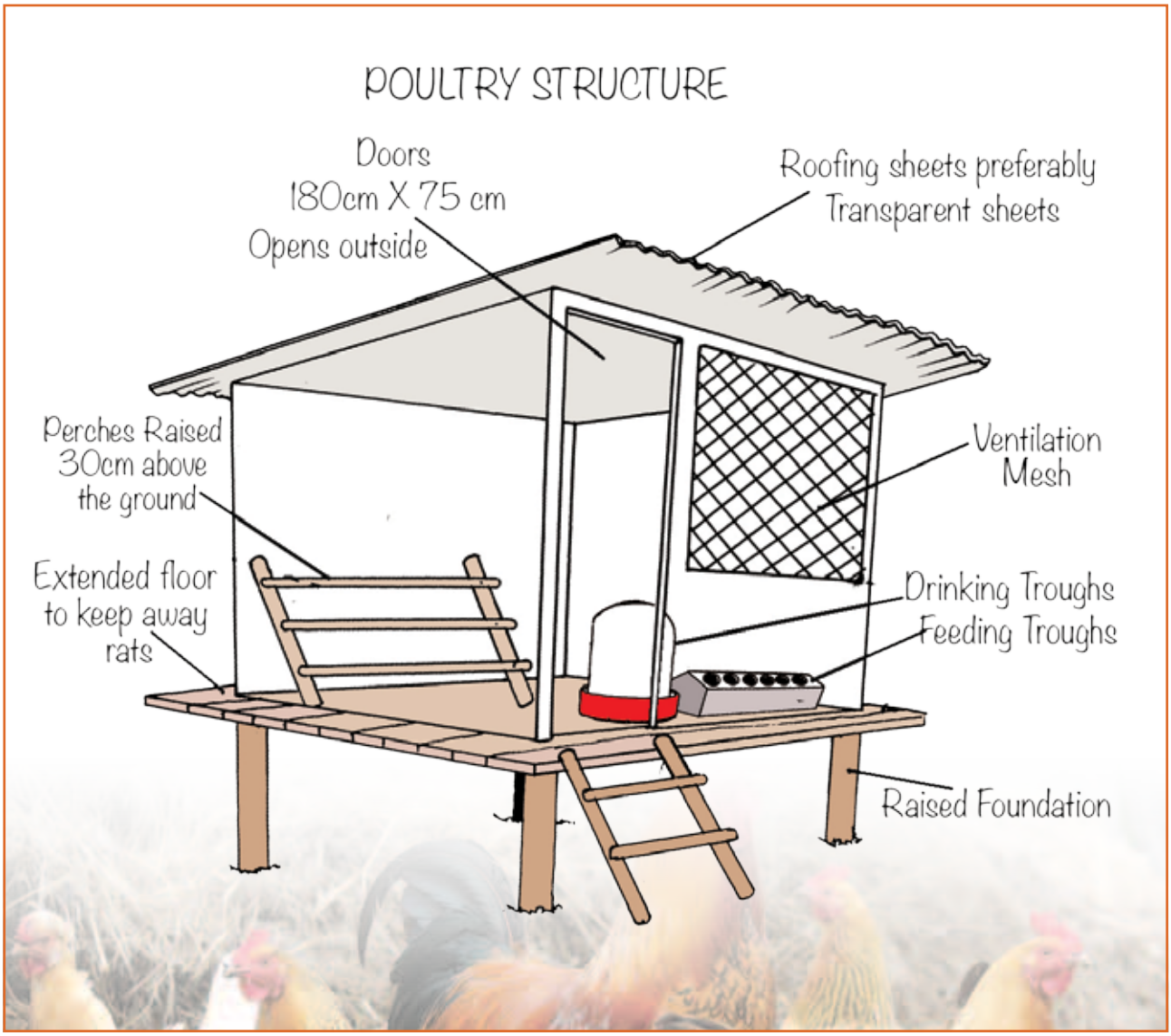
https://infonet-biovision.org/AnimalHealth/Chicken



Plant certified potato seed for best yields

By Charei Munene

The potato seed you use will determine whether you harvest a good potato crop or not. Seed is the most important input for a farmer. Seed quality affects the performance of the crop and eventually the yield. The choice of potato seed can affect your production with margins of over 50 percent. You will get a healthier potato crop and more yield if you use certified seed potato. Planting certified potato seed doubles or even triples yields. Most farmers are still using old seed that has been planted for very many generations. These old seeds mostly transfer disease, have lost strength, and are very likely to become diseased and produce very poor yield. Certified seed on the other hand are produced from virgin propagation material under very strict agronomic conditions.

The advantages of using certified potato seed include;

1. *Better yield, pest/disease resistance and drought tolerance. Certified seeds are a product of many years of research and development combined with excellent agronomic practices. Certified seeds have good attributes, are healthy, strong and well adapted for different agro ecological zones.*
2. *Seed potato is disease free since regular inspections are done in the seed potato fields by well-trained government officials.*
3. *Seed potato production is traceable and hence brings accountability.*
4. *Seed potato maintains the value traits of the crop. Many good traits of a potato variety can be gotten in certified potato seed.*
5. *Certified seed potato compliments your good agronomic practices making sure you get the most from your inputs, it saves cost of inputs since disease and pest incidence is lower.*

You can plant two to three generations from the certified seed potato before getting fresh certified seeds. Farmers can also buy certified seed potato in groups to share costs.

The table below summarizes availability of seed potatoes from registered seed potato merchants in Kenya. It details the current varieties available; location and contacts of each seed producer.

You can order your seeds through viazi soko digital platform; www.npckviazisoko.com.

Charei Munene is a plant pathology expert, at International Institute of Tropical Agriculture (IITA). charonesh@gmail.com

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https://infonet-biovision.org/PlantHealth/Crops/Potato-Seed-Production

1	ADC-Molo	Nakuru, Molo	0721202565 Judith, adcmolo@gmail.com	Shangi, Sherekea, Dutch Robjin, K. Karibu, K. Mpya, Bvumbwe, Asante, Desiree,mavuno, Tana, K.Sifa, Tigoni.
2	KALRO-Tigoni	Kiambu, Limuru	0712456653/733834675 karitigoni@yahoo.com	Shangi,Tigoni, Unica, Kenya Karibu, Arka, Sherekea, Kenya . Mavuno
3	Kisima Farm	Meru, Timau	Oliver Fancombe - 0789458376 potatoes@kisima.co.ke	Tigoni, Asante, Sherekea, K. Mpya, Derby ,Sagitta, Taurus, Challenger, Evora, Panamera, Rodeo, Sifra, Voyager.
4	Agrico East Africa (under Potato Services Africa Ltd.)	Nakuru, Kabarak	0741788380-Ruth info@agrico.co.ke	Markies, Rudolph, Destiny, Manitou, faluka, zafira.

5	FreshCrop Limited	Nakuru, Narok, Nyandarua	Chris Gasperi (Founder and CEO) freshcroplimited@gmail.com, 0727230484 0795122648	Shangi, Dutch Robijn, Wanjiku, Chulu, Unica.
6	Singus Enterprises	Nakuru- Molo	Ann Mbugua 0722691245	Shangi, Dutch robjin, Unica
7	Suera Farm	Nyandarua, Oljoro'orok	0706-186579 Suera.flowers@gmail.com	Musica, Lady Amarilla.
8	Egerton University Seed Unit	Nakuru, Njoro	P.O.Box 536-20115, Prof. Kibe 0721402957 or John Nganga 0723079623	Shangi, Dutch robijn, Sherekea, Kenya Kabirbu.
9	Stockman Rozen Ltd	Naivasha	0720-603990 info@srk.co.ke	Apical cuttings and mini-tubers of Shangi, Unica, Konjo, Dutch robjin, Wanjiku, Asante etc.
10	GTIL (Apical cuttings and minitubers only)	Nairobi, Lower Kabete	0729852403 kae@africaonline.co.ke	Dutch Robijn, Shangi and Konjo.
11	Gene Biotech seeds LTD	Kajiado, Isinya	0739-532993-Nayarani, narayanimanatan@yahoo.com	Shangi.
12	Clabham Investment limited - Frontier farm	Nakuru, Mau Narok	0710607935 Boniface, bonifacetoday@yahoo.com	Shangi, Dutch Robijn.
13	Spring valley (Moiben)	Uasin Gishu, Moiben	723916161-Samson Chebutuk	Shangi, Dutch robijn.
14	Aberdare Technology Limited	Muranga	P.O.Box:418-01020 Muranga +254716177086	Shangi, Dutch Robijn.
15	Sigen Hortipruse Ltd	Elgeyo Marakwet	Isaac Letting 728621222	Shangi, Dutch Robijn.
16	Kevian Kenya seeds (Kirinyaga seeds)	Kiambu	Henry Kigen 0701830699 info@kirinyagaseeds.com	Dutch varieties, Tornado, Infinity and Imagine.
17	Savannah Fresh Hort. Farmers' Cooperative Society Ltd	Meru	Patrick 0708347959	Asante, Sherekea, Sagittal, Taurus, Challenger, Panamera, Unica, Dutch robjin, Konjo and Voyager.
18	Baraka Agricultural College (Nakuru)	Nakuru, Molo	Antony Majanga 0724775769	Shangi, Kenya Kabribu, Dutch robijn.
19	Kenya Highland Seeds (Royal seed)	Nairobi	Peter 0706 825555 Peter. francombe@khs.co.ke	Royal, Sarpo Mira.
20	Starlight Cooperative Society	Nakuru- Molo	721109200	Shangi and Sherekea.
21	Kimingi Farm (Kalro Tigoni grower)	Nyandarua	John 781431222, 0726107722	Shangi.
22	Bubayi products Ltd	Kitale	0735488001, 0722599419	Shangi and Dutch robijn.
23	NYS Tumaini,	Nyandarua, Olkalou	Kennedy Nyakango, 0720036271	Shangi, Dutch robijn, Unica.
24	Taita Papa	Taita Taveta, Wundanyi	Granton Ndighila, 0726007669/0735 402986	Unica, Sherekea.
25	Agripom Kenya Limited	Nakuru Molo	723111205/ rkimanya@agripom.com	Shangi.
26	Jancota Limited	Nyandarua, Olkalou	Jancota, 0743317508, info@jancota.com	Shangi, Unica, Wanjiku, Dutch robijn.
27	Utopian Supplies Kenya Limited	Nyandarua, Rironi	Stephen, 0725240133, Stephen@utopiangroup.co.ke	Shangi.
28	Flomsa Limited	Nyandarua &Nakuru	Florence Kairu flomsalimited@gmail.com 707848750	Shangi and Unica.

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Location	Frequency
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Narok	102.3
Nyeri	105.7
Machakos Makueni Kitui	93.8
Meru	105.1
Marsabit	88.3

Location	Frequency
Nakuru Gilgil	104.5
Kisii	91.3
Kisumu	105.3
Mombasa	105.1
Kericho	90.5
Eldoret	91.1

Tuko Mbele Pamoja!

Organic farming improves health

By Grace Kinyanjui

"My love for garden salads propelled me to practice organic farming. Initially, I would buy vegetables from my local market, but an article on toxic chemicals used by Kenyan farmers in one of the local newspapers became my game changer. Now I eat 'clean and healthy' salads made from vegetables that I grow without synthetic chemicals," says Esther Wahuini, a smallholder farmer in Kithimu, Embu County.

Ms. Wahuini's farm is divided into plots that have different crops such as garden peas, carrots, kales, spinach, spring onions, cabbages, black nightshade (managu) and Amaranth (terere). She also keeps poultry and rabbits on her one-acre farm. She started farming with an aim to cater for her family, but she has become a supplier of fresh vegetables 'mama mboga' in her village.

"It was very difficult in the beginning because I did not know the organic farming practices to apply. I suffered major losses, especially with tomatoes. However, my farm produce greatly improved when I met a specialist in insect pest management. She has been very supportive in my organic farming," explains Ms. Wahuini.

Organic farming is a production system that integrates several agricultural practices that foster production of safe food and conserve the environment. Farmers basically produce their food without using synthetic chemicals. Organic farming entails the following practices:

- *Maintaining healthy soils: Healthy soils produce healthy crops that are able to overcome pests, diseases and other environmental stresses. "I supplement the soils with a compost of rabbit and chicken manure before every planting activity. Composting helps to kill disease-causing organisms and other contaminants, "says Ms. Wahuini.*
- *Polyculture farming: For every growing season, Ms. Wahuini grows several crops either through intercropping or strip cropping. "Growing different crops has been very useful in the management of insect pests. I intercrop all my vegetables with spring onions, which repel most insects. As a farmer who embraces biological control, mixed cropping also helps to increase biodiversity of natural enemies," explains Ms. Wahuini.*
- *Crop rotation: Ms. Wahuini practices crop rotation in all her plots. Generally, crops in the same plant family should not be planted in a rotation. This helps to improve soil health and management of crop pests and diseases. She had planted tomatoes, carrots and cucumbers in the last growing season, but now she has spinach, cabbage, kales, garden peas and managu.*

- *Integrated pest/disease management: Successful control of crop pests and diseases first requires proper and timely identification of the problem, which is achieved through routine monitoring. Insect pests can be controlled using biological control agents, biopesticides and cultural measures. Ms. Wahuini uses homemade plant extracts from onions and garlic, soap sprays and wood ash to manage both pests and diseases on her farm.*

Challenges: *"My greatest challenge has been accessing biopesticides and fungicides that are organic from our local agrovets. All the same, this has turned me into an expert of homemade organic pesticides and fungicides",* she says.

Lessons learnt: *"Organic farming is for the devoted farmers who will regularly walk around their farms to check their crops, detect crop stresses and identify early symptoms of pests and diseases. Preventing a serious crop attack is always the first line of defense. Also, organic farmers should be able to make decisions on the appropriate crop management strategy to apply, instead of seeking advice from the agrovet attendants,"* says Ms. Wahuini. Finally, she recommends that all Kenyan farmers shift to organic farming because it is possible to produce healthy food without using toxic chemicals.

FARMERS' FORUM

Grace Mbau from **Maragwa Murang'a** is looking for a **high yielding dairy goat.**

Leonard Muchiri from **Kigumo, Murang'a** is looking for **several thousands of Meru Oak seedlings**

Beth Nzioka from **Kiundani, Makueni** is selling **chicken**

To reach the above farmers **call us at 0715422460**

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