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The Shamba Times

Kenya Horticultural Society North Coast District



IN THIS EDITION

Our Garden - The Balletto's garden in Malindi

How to grow Passion Fruit.

Formal and Informal Seed Systems

Members' Gallery and Monthly Meetings

Odds and Ends and Diary of Events.

North Coast District



Chairman's Notes

A very warm welcome to the October 2022 edition of The Shamba Times.

On 8 September 2022, HM Queen Elizabeth II died. She was Head of State of the UK, and Head of the Commonwealth of Nations, of which of course Kenya is a member. The Queen was also Patron of the Royal Horticultural Society, of which KHS is an associate. The Queen was a renowned lover of gardens, of nature, and of the outdoors. Rarely a year went by when she was not pictured attending the annual Chelsea Flower Show, often with her mother.



The Queen has been succeeded by King Charles III who as Prince of Wales was a noted and articulate advocate of the benefits of organic gardening, horticulture and farming. Parts of his garden at Highgrove, in the English Cotswolds, have been open to the public for many years, and as Prince of Wales, Charles used to attribute his occasional back problems to too much time spent bending as he worked in his garden. As King, he will probably not have much spare time for gardening, but I think we can expect his love of gardens and his interest in organics to continue. As we know, once a gardener, always a gardener.

As a gardener in Kenya, I think one takes a certain inspiration and encouragement from knowing one shares a passion with the new King of England. I suspect we all have a way to go to equal his knowledge, expertise and enthusiasm for organics, but we are getting there slowly, led by some of our own fundis and enthusiasts.

In the fullness of time we shall see whether King Charles succeeds his mother as Patron of the RHS. Personally, I can't think of a better person to lead the world's foremost non-profit horticultural society of members.

Crispin Sharp.

Bauhinia mombassae



Our cover picture this edition is of the lovely *Bauhinia mombassae*, photographed by one of our members south of Mombasa in Diani.

The genus of this lovely thick leaved plant which is part of the family *Fabaceae* was named after the Bauhin brothers Gaspard and Johann who were Swiss-French botanists.

Bauhinia mombassae is found in Kenya and Tanzania but is currently threatened by habitat loss, and is listed by IUCN as an 'endangered' species. How sad if it were to disappear from the East African coast.



KENYA HORTICULTURAL SOCIETY
Gardening Kenya

The Kenya Horticultural Society was established in 1923 for the purpose of stimulating and increasing interest and knowledge of gardens and plants in Kenya. The North Coast District extends from Vipingo in the South to Malindi in the North. Annual membership is Ksh 1000 per person (Ksh 1300 per couple). Corporate Membership is offered at Ksh 2000. Members gardeners are accepted for limited membership at a fee of Ksh 500 per annum. Of course we welcome new members, so why not see if you can introduce a new member to us? this quarter?

Contacts

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Hon Sec This post remains open

Hon Treasurer **Mr Rupert Partridge**
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NCD MPESA 0702 767 177

NCD Shop **To be announced.**

Our Garden

OUR GARDEN IN MALINDI by Pauline and Ellio Balletto.

We bought our plot (one acre) in Malindi north, inland near the Malindi Tropical Nursery, in 1977. It had previously been a mango/cashew plantation, the plot being covered with these trees planted in rows. At our end of Malindi behind Malindi Bay, the soil is sandy with no coral (no bashing through coral to plant thus required). We have been led to believe that this was once an old estuary of the Sabaki River, hence the lack of coral inland and out to sea.



Prior to moving to Malindi, we lived in Mombasa in rented houses. Having moved several times, our plant collection was all in pots and bags so we were able to move them around with us. By the time we moved to Malindi, we had two tipper trucks of potted shrubs and house plants! A useful start...

The garden has very much evolved rather than being planned as new trees, palms and shrubs grew replacing the mangoes and cashews. Malindi rather lacked plant and *jua kali* nurseries at that time, so we had to make do with what we had and what we could find.



As a plant collector, our garden is full of everything. At one time, I had a huge collection of Crotons (*Codiaeum variegatum*) but, once they had passed their best and I tried to replace them, the new ones didn't grow well. The late Brian Perkins (a notable Kenyan horticulturist) once told me that a Croton would not grow where a Croton had previously been planted. From my point of view, this proved true. A collection of Hibiscus also fell by the

wayside as I got fed up with the mealie bugs and ants, and the virus on the leaves. We are not keen on spraying and do as little as possible - using home-made brews while relying on compost for fertilising.

Our Garden continued ...

I

have now planted about half of the garden (the lower end) with dry weather plants, including a good collection of Aloes (over 40 species), other succulents and indigenous plants. This area is more or less left in the dry weather to fend for itself.



The area nearer the house has more water-loving plants, potted plants, orchids and bromeliads. I find the potted plants fare better in the hot weather and manage on less water.

This year, against my better judgement, I have replanted some of the lawn while adding a new flower bed in order to reduce the amount of lawn. I really feel with world water problems, lawns in the tropics which require watering are not very sensible. Most years I have let the broad leaf grass *Stenotaphrum dimidiatum* (thanks, Dino!) die down and then replant the patches that don't make it. But, after last year's dry hot weather, we were left with more of a dead patch than growing grass! I have also tried a small patch with Star Grass, *Cynodon nlemfuensis*, taken from the side of the road, to see how this does. Even when the ground is completely parched, it usually springs back to life during the rains, unlike the broad leaf, and does better in full sun.

... continued

Some years ago, we constructed raised beds as the veggie garden, with a huge shade net cover. These do help: it is easier to work than at ground level. My great love is growing herbs. I love to be able to pop out and pick what I want when cooking. I usually have (or try to keep) the following on the go: Bay tree, Curry tree, Kaffir lime, Lemon grass, Rosemary, Thyme, Sage, Oregano, Chives,



Mint, Basil, Dill, Parsley, Dhania, and Lemon Balm. All do quite well. The last five usually last well into the hot weather when they die off whereas the veggies are very seasonal.

To conclude, I am sure the garden will need to evolve further to comply with the predicted drier conditions.

EDITOR'S NOTE:

Many thanks are due to Pauline and Ellio Balletto for writing this piece about their lovely garden in Malindi. I love the fact that they have both contributed to the account. It is particularly satisfying to hear about a garden that is evolving (or being evolved) to take account of the changing climate in Malindi.

KHS North Coast District hope to hold a garden visit to Pauline and Ellio's garden later this year, perhaps in October or November, following the short rains, if we are fortunate enough to have them.

We are always looking for material for The Shamba Times, and we urge readers to take up their pens and their cameras and to send us something about their own gardens. Long or short, any glimpse into our members' gardens will be warmly welcomed.

How to grow Passion Fruit ...



The following article, written by Esther Mwolei, appeared in the June 2022 issue of *The Organic Farmer*, a monthly newsletter supported by Biovision Africa Trust that aims to promote organic horticulture within Kenya, and which the North Coast District will in future support by subscribing to the newsletter and by sharing articles with our members from time to time.

The passion fruit tree commonly known as the climbing vine from its nature is one of the fruits that farmers should adopt growing to earn an income. Compared to other fruits, passions do not face a lot of competition in the market and rather always have a ready market in both local and international markets.



The fruit is rich in Vitamin A which improves human eyesight, and Vitamin C which is essential in the growth and repair of body tissues. The common types of passion fruits grown in Kenya include the *Passiflora edulis* (purple variety) and *P. Edulis 'ar flavicarpa* (yellow variety). The purple variety has a small rind and the fruit is smaller in size with lots of vigorous vines. It is also perceived to be more acidic than the yellow variety. The purple variety is preferably grown in high altitude areas such as the Mt. Kenya regions and parts of Laikipia. The yellow variety is characterised by a yellow rind when ripe and the fruit is usually big. This variety is usually grown in low altitude areas such as the coastal region and is more resistant to pests and diseases. For farmers to get high yields regardless of the region scientists have propagated the fruit by grafting the purple variety with the yellow variety. The root stock of the yellow passion is used because it is tolerant to nematodes and farmers end up getting high yields and hence more profits.

Planting



Passion fruits can be planted directly from seed by extracting seeds from the pulp and letting them dry up. Once they are dry, three seeds are sown in plastic bags at a depth of 1cm and thinned leaving one behind after two months. When the seedlings get to almost four months they are ready to be transplanted. Cuttings can also be used. Prepare the ground well by digging fairly deep holes because passion trees have deep roots. Space your seedlings at 2 meter intervals from one row to another and 3 metres from one seedling to another. Light but

sandy loams are the best soils for planting the seedlings because heavy clay soils will require draining, while very sandy soils require a lot of manure.

... and earn extra income.

Maintenance

Water is a key requirement for the passion tree because it is a climbing tree and the vines grow very long. The water also helps in making the fruit grow big and sweeter. In areas with low altitudes watering should be done at least 3 - 4 times a week. Sunlight is another important aspect of the growth of the passion vine. To ensure that the vine receives adequate sunlight introduce hardwood or concrete poles which should be adequately spaced for the vines to climb through. Tie a galvanised wire across the poles. Avoid the use of any other wire to keep away diseases which may result from rusting of the wire. Pruning should also be done to allow an adequate supply of sunlight. This should not be done when the vine is flowering because the flowers might get injured and fall. Pruning can also take place after harvesting because the circuses which bore fruits are no longer important. Once the fruits have started forming, introduction of foliar feed is necessary for making the leaves healthy and to improve the quality of the produce.

Harvesting

A healthy vine can produce 15—20 kgs during harvest. Harvesting is done by collecting the fallen fruits on the ground and not by plucking. Completely ripe fruit falls when it's ready. Plucking can cause damage to some of the circuses and can also result in the picking of fruits which are not ready. Once the fruits have fallen, do not leave them on the ground for long to avoid rotting. Harvesting of passion fruits is usually done twice a year.

Pests and diseases

Nematodes are one of the common pests that attack passion fruits but can be controlled by grafting which is highly recommended by the use of a tolerant rootstock. Other pests and diseases that attack passion fruits are fruit flies and brown spots on leaves. With fruit flies, the larvae attack the fruit by sucking its pulp causing premature dropping. The fruit fly also attacks the flowering buds. To control fruit flies you can install fruit fly traps on your farm, collect fallen fruits attacked by the fly at least twice a week during the harvesting season and bury them. Pluck fruits with dimples and the ones that ooze a clear sap and also wrap the fruit with a newspaper or paper bag to prevent the fruit fly from laying eggs on it. The brown spots on the leaves and fruits are another common disease. To control these diseases practise field/soil sanitation and also prune the circus to reduce humidity within the crop and to allow enough circulation of sun and air within the crop.



Value-added products

Besides the consumption of the passion fruit directly after harvesting, and its use for cake decoration, several products can be obtained from the fruit, such as cosmetics, salads, yoghurt and juices.

<https://infonet-biovision.org/PlantHealth/Crops/Passion-fruit>

Formal and Informal Seed Systems

Introduction

The term 'indigenous' is never far, it seems, from our KHS NCD lips - usually when we speak of trees and shrubs. We may be less aware of its application in another context, that is, in relation to **seeds**... Under the recently enacted *Seeds and Plant Varieties Act of 2012, Part 2 (8)*, the government wants farmers to grow crops from licensed seeds only not from indigenous (also referred to as 'informal') ones. Indeed, the legislation makes it a crime to plant and exchange uncertified seeds. Yet, studies have shown that 90% of the seeds planted in Kenya are from indigenous/informal seed systems. 80% of smallholder farmers in Kenya depend on informal seed systems which include sharing seeds with other farmers and selling and buying at local markets. To provide insights into the implications of banning indigenous/informal seed exchanges in Kenya, we reproduce here in full an article **by** Oliver Kip-too Kirui, International Food Policy Research Institute, which was recently published in *The Conversation*.

“What are formal and informal seed exchanges?”

In the formal channel of seed exchanges, a registered seed company manages the production, processing and packaging - and sometimes even distribution - of seeds. This channel provides an idea of what to expect from harvests.



Kenya has about 26 registered seed companies - 23 are local and three are multinational. The three are Syngenta, Monsanto and the East African Seed Company. The country's oldest registered company is Kenya Seed Company, a state corporation established in 1956. The aim of these companies is to produce and distribute superior seeds for commercial and domestic use. It's estimated that two-thirds of

the maize seeds planted in Kenyan farms are from formal sources. Maize is a staple food for over 85% of the country's population. The yield - or productivity - from improved or hybrid maize seeds is often significantly higher than from traditional varieties. Farmers can expect an average 87% higher yield from hybrid seeds. Kenya is one of the leading countries in Africa when it comes to formal seed distribution.

The second seed distribution channel is informal. This largely involves the production and exchange of seeds among small-scale farmers. This system is characterised by a lack of seed testing, formal registration or quality control. Informality makes it difficult to assess the quality of seeds in farms and their harvest potential. It can potentially spread contaminated seeds and plant diseases. It could also mean that farmers are continually planting seeds that have consistently low yields.

Why do informal seed exchanges exist?

Informal seed exchanges exist because farmers don't have access to quality seeds. This is because they are too costly, are unavailable in remote areas or are not available at the right time. This has been an issue for generations. As a result, farmers often store a portion of their seeds after harvest, which they then plant or share with their neighbours. Sometimes this doesn't involve an exchange of money.

Compiled by Wendy Taylor

Seed shortages in the formal system are particularly hard-hitting during planting seasons. This is a reality across many small-scale farms in Kenya every year. So informality has thrived, not just because farmers prefer to share seeds, but also because of the distribution challenges they face.

With informal systems, farmers are sure they can get the seeds they need and when they need them. Informality has other advantages. For example, it allows farmers to preserve some of the genetic traits they would like in a seed.

What does the Kenyan law seek to address?



This isn't the first time the government has tried to use the law to fully formalise Kenya's seed systems. In 2010, the National Seed Policy was published and launched. It was aimed at enhancing the seed sector's ability to provide farmers with high quality seeds. In 2016, the Seeds and Plant Varieties Act came into effect. It aims to develop, promote and regulate a modern and competitive seed industry.

Licensed seeds and companies are supposed to ensure that farmers have access to quality seeds, especially for maize and legumes, which are critical Kenyan food staples. So the concern for the government, as I see it, is that the formal system can assure the country that quality seeds are circulating in the market. With informality, it's impossible to know exactly what farmers are exchanging and planting.

Implications of the push for a fully formal seed system?

I think the big fear with a fully formal system is that it would lead to the rise of monopolistic seed companies.

The heated debates that followed the development of genetically modified and bioengineered seeds included concerns that major producers like Bayer and Corteva would limit how farmers can use the varieties they sell. Usually, buyers of these seeds sign agreements that prohibit them from saving seeds from their crops to exchange or resow. Yet, if these companies ran into distribution challenges, household food security would suffer.

Consider maize, for instance. More than 75% of Kenya's total maize output is produced by smallholder farmers. If they were unable to secure maize seed, plant and harvest it, there would be chaos in the market. To avoid this scenario, many farmers have over the years seen the need to save some seeds to grow the following cropping season. It gives them some control.

Aside from dealing with distribution challenges, farmers would also be required to make upfront financial investments in a fully formal system. They will need money to buy certified seeds and fertiliser. While there are microcredit facilities available, they are inaccessible to a majority of small-scale farmers.

If farmers cannot afford to buy superior varieties and have no access to an alternative, it means that in six or seven months, the country can expect a harvest shortage. This has huge implications for food security at the household level.

Seed Systems continued.

Is a fully formal system feasible?

I think formalising seed systems is a good thing because it makes harvests more predictable. But banning the informal system is not the way to go.

In my opinion, the country should work towards a decentralised system that offers a mix of formal and informal seed distribution systems. The government should encourage seed improvements and support local communities to establish seed businesses. But farmers should have a choice. If the government can ensure that there is enough certified seed and the costs make sense, informality will naturally reduce in the long run.

The other question to consider is how the government will implement this policy. It's a very difficult thing to put into operation and monitor, and the government is unlikely to have the infrastructure to do so. This move is reminiscent of the country's 2013 effort to ban the hawking of raw milk. The government was unable to implement the ban and it was eventually suspended. Today,

85% of the milk consumed in Kenya is raw and hawked informally.”



Addendum

Not surprisingly, farmers and various civil society groups have expressed concern about the legislation and its implications not least that the former does not protect the ownership of indigenous seeds and the intellectual and traditional knowledge on seeds in the country. Informal seed systems are considered to be under-valued and the key role of farmers, through a diverse spectrum of farmer-saved seed varieties, in producing food and in preserving agricultural biodiversity greatly under-estimated. There are, however, a number of local non-governmental organisations and international agencies which do recognise the significance of such characteristics and support farmers to establish community seed banks where they can save and secure nutrient-rich, indigenous vegetable varieties including amaranth, Black Nightshade, Spider Plant, Ethiopian Kale and pumpkins.

Sources:

Kenya's push for a purely formal seed system could be bad for farmers,

The Conversation, May 25, 2022.

A Community Seed Bank, photograph courtesy of Seed Savers Network Kenya, webpage

Images from NCD gardens.

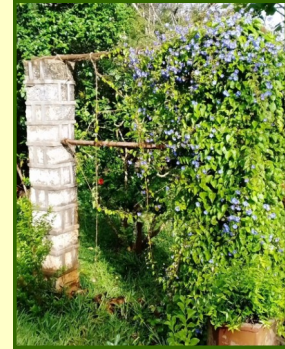
A gallery of members' recent photographs



Marigolds, cosmos, dill
Katy Lockhart-Mure, Kilifi.



Celosia cristata
Mariola Saliola, Malindi.



Jacquemontia
Nicola Morrell, Kilifi.



Hibiscus tiliaceus
Ursula Brenniesen, Shanzu.



Alpinia zerumbet
Crispin Sharp, Malindi.



Rosa rose
Ulrike Neubert, Mtwapa.



Rothmannia annae
Kaiungu Gona, Msabaha.



Ancylobothrys petersiana
Anne-Marie Steyn, Watamu.



Phalaenopsis white
Katana Baya, Watamu.



Aloe volkensii
Katana Baya, Watamu.



Coast
Nicola Morrell, Coastline Kilifi.



Cocos nucifera
Kaiungu Gona, Msabaha.

NCD Monthly Meetings Report



North Coast District has held four meetings in the third quarter of 2022.



On 26 July, 35 members gathered at Kipepeo Butterfly House just outside Gede Ruins. North Coast District has volunteered to help restock the Butterfly House with plants, to renovate the current planting, to re-pot many existing flowering plants, to install hanging baskets, and to renovate the fountain and water feature within the house. We are very grateful that Davis and Shirliff are going to assist with the water feature by donating a new pump, and in late September we shall be holding our first gardeners' work day at Kipepeo at which members and their gardeners will get down to work to start the improvements we hope to make at this important community project.



On 15 August, around 25 members met at Crispin Sharp's garden in Malindi for a talk by Aasit Shah of Organix, and a demonstration of the organic garden products that Organix are now marketing throughout Kenya. Two patches of lawn were marked out and given a full renovation feed, and there has been a marked improvement in the colour and health of the grass in the areas that received feed, relative to the rest of the lawn that was not treated. There was also a demonstration of preparing the ground for new planting along with a lot of



questions and answers about the importance of creating and maintaining healthy soil throughout the garden.

On the 30 August, more than 40 members met at The Board Walk community centre at Mida Creek for a guided walk through the mangroves. The walk was guided by Jonathan Baya, an NCD committee



member and a well known and respected local guide who has maintained a keen interest and knowledge of both Mida Creek and Arabuko Sokoke Forest. Jonathan explained how the mangrove eco system should be maintained and alerted members to the loss of a vital part of the system due to unauthorised harvesting of mangroves for use as



building poles. Jonathan was assisted by a local community guide, Juma, and by plantsman Katana Baya who also serves on the NCD committee. Members greatly enjoyed the natural beauty of Mida Creek and the local knowledge and expertise that was freely shared by our guides.

And on the 13 September, NCD held an important meeting at Kivuvoni Indigenous Tree Nursery (KITN) to launch our district's contribution to the KHS Centenary indigenous tree planting scheme. As part of the scheme NCD has commissioned Norbert Rottcher, who runs the indigenous tree nursery on the Plantation south of Kilifi, to identify 50 - 100 indigenous trees of as wide a variety of species as appropriate to our coastal region, to be nurtured until they are mature enough for planting. The final location/s at which the 100 Centenary Trees will be planted has not yet been determined, but is likely to be at Pwani University. Our aim is to plant in a wholly sustainable and appropriate way in order to create a future seed bank of indigenous tree species within our area.

KHS National Council
2022 - 2023
The KHS Centenary Tree Planting Challenge

KHS Council has challenged each of its 10 districts to plant 150 indigenous trees of Kenya in a single site within each district as part of the KHS 2023 Centenary projects and activities.

The task ahead:

Each KHS district must identify 150 indigenous trees to plant in a single site within each district as part of the KHS 2023 Centenary projects and activities. The site must be a single site within each district. The site must be a single site within each district. The site must be a single site within each district.

Funding for the task:

The KHS National Council will provide funding for the task. The funding will be provided in the form of grants to each district. The grants will be used to cover the costs of identifying, planting, and maintaining the trees.

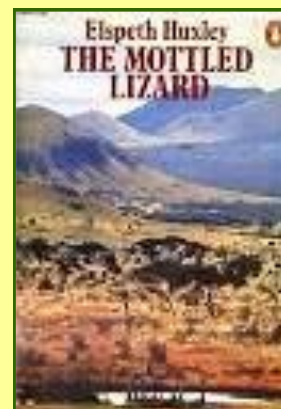
We need KHS members to help identify sources of indigenous tree seedlings, a possible site for a temporary tree nursery, and a further potential site where the 150 seedlings can be brought to maturity. Please contact a member of your local committee if you can help.

Odds and Ends



Sentimentalist? Hardliner? or Somewhere in Between?

After Elspeth Huxley and her parents, Robin and Tilly, had returned to Kenya after the First World War, she writes of their adventurous ride to identify some land at Njoro, during which they took up the hospitality of Mr and Mrs Duncan who had settled on the Kinangop (originally coming from the Western Isles of Scotland). In a shaded, cool and sheltered spot, warmed in daytime by the genial sun, Mrs Duncan, who was described as large, motherly and vague, grew daffodils as well as violets, narcissi, hyacinths and jonquils - even snowdrops and crocuses. Says Elspeth, "We were amazed to see a sheet of yellow quiver under the trees, and sunshine distil through the parchment-thin trumpets of daffodils an essence of gold, to find the purity of temperate spring recreated here in the wilderness."



Tilly felt strongly about this, reflecting that, "It's wrong, really, to make that sort of garden on the Kinangop" and, further, that "One shouldn't use nostalgia as a principle of gardening...Down with exotics: up with the indigenous. But I must say, right or wrong, it was very pleasant. Mrs Duncan may be a sentimentalist, but she's pulled it off."

Source: *The Mottled Lizard*, Elspeth Huxley, 1962

Diary of upcoming events

25 October 2022 - A garden visit to the Balletto's garden in Malindi.



Pauline Balletto is well-known to North Coast District members as a former Secretary of the district committee, and an accredited KHS judge who has judged many flower shows in Kenya. Pauline was also part of the national KHS team that represented the society at the Philadelphia Flower Show in the United States. Their display was based on balmy/palmy days on the coast. Pauline and her gardener have recently overhauled her 1 acre Malindi garden which Pauline calls a 'collection of plants', and containing many fine examples of mature palms and other coastal plants.

22 November 2022 - To Be Announced.

We are currently finalizing arrangements and venue for our November meeting with the aim to hold the meeting in Watamu or Kilifi on Tuesday 22nd or Tuesday 29th November. As soon as the date and venue are confirmed we will inform members by email and by posting on our WhatsApp group, in the normal way. Thank you for your patience.

25 December 2022 - The annual NCD Christmas Day dhow trip



This is a delightfully informal and relaxing way to spend Christmas Day, cruising up Mida Creek and back, to anchor for an excellent lunch of fish, lobster, prawns and traditional Christmas turkey on board the beautiful Turtle Bay Beach Club hotel dhow. This KHS NCD event is open to all members and their guests but being very popular, booking is on a first come first served basis. If you would like to spend Christmas Day on Mida Creek with the NCD, please contact **Holly Pritchett** on **0722244256**.

