

Join the Harvest Money editor, Joshua Kato, on a year's

Why I have chosen



A section of Kato's apiary farm

By Joshua Kato

I have taken on apiculture (bee-keeping) as an enterprise. Every month, I will share my successes and challenges, until I make my first harvest which I expect to be around August next year.

Like many Ugandans, I love honey. However, I feared bees, until recently. As a journalist, I have profiled many farmers who practice apiculture. In 2009, Harvest Money featured Adam Candia from Luwero district, who with just 35 Kenya Top Bar (KTB) hives, he is earning good money to sustain himself. I have met Abraham Kipmas from Kaphorwa district with 80 hives and Robert Okodia from Lira district, who has since moved from just keeping bees to exporting bee products.

Every week, I spend an average of sh22,000 on a kilo of honey because my family uses it for pasting bread and as sweetener. However, until recently, I had not been attracted to bee keeping as a business.

I have tried several agriculture ventures including growing bananas, pineapples, rearing chicken. However, because I am a full time employee, supervision of the projects was quite difficult. The option was, therefore, finding an enterprise that consumes less of my time. Meanwhile, in September, Harvest Money covered the story of Tom Anyii, a bee-keeper in Lira district and I was impressed by his story.

"Keeping bees is one of the easiest and most rewarding ventures one can engage in," Anyii told me.

I researched about bee keeping. On the other hand, I also contacted Eliazar Nsubuga, who constructs and sets up hives. He taught me about advantages of using the modern hive. He charged me sh200,000-sh250,000 for each colonised hive.

During my research, I discovered that bees need a location which is quiet and at least 200m away from daily human activity. The place should have a water source and food within 1,000metres of reach. The area I had identified for apiculture met all the requirements. The farm has a lot of trees like mugavu, acacia, mangoes and coffee plus bananas, which create a good, cool environment that is conducive for bee-keeping.

Viability

I have tried ventures including growing bananas, pineapples and rearing chicken. However, because I am a full time employee, supervision of the projects was difficult. I, therefore, had to find an enterprise that takes less of my time. According to Tom Anyii a bee farmer, keeping bees is one of the easiest and best ventures.

The trees do not only provide a shade for the hives, but also nectar whenever they flower.

Choice of hives

My earlier choice of hives was to get only 'modern' hives, because I thought that they produce better. However,

my conversation with Anyii changed my mindset.

He has a few 'modern' hives. However,

he uses 'modernised' local hives because they yield much better. According



Nsubuga (right) is helping set up Kato's bee enterprise

22kg of honey from the local hives yield 22kg of honey, compared to an average 20kgs from the 'modern' hives.

Anyii says the average price of honey is sh10,000 per kilogramme, each hive can give me as much as sh200,000 per year. If I have 200hives, that is around sh44m as gross in a year.

I tasked Nsubuga to make for me the Langstroth hives. I made a plan to set up at least 200 hives in a period of six months, running from November 2017 to May 2018. According to the plan, 50 hives should be set up between November and December 2017, 100 between January and March 2018 and 50 between April and May 2018.

The 'modernised' or improved local hives from Anyii cost about sh70,000 each. Anyii's hives look like local, log hives, however, everything inside is modern. He, for example, separates the queen bee from the main swarm, so that when it comes to harvesting, the swarm is saved. They also have honey comb plates on which the bees construct the combs.

On October 20, I paid for the

journey as he invests in a bee keeping enterprise apiary as a business



Kato inspects one of the hives at his farm



An example of a bee suit

first 50hives. Of these, 40 are from Anyii at sh2.8m. I also paid sh1.5m to Nsubuga for 10 modern Langstroth hives. This put my initial investment at sh4.2m for the first 50 hives. Additional costs included buying buckets and preparing stands for Anyii's hives. My projection is that for the 200 hives, I will need about sh20m including the cost of setting them up. One of the reasons for spacing the placement of the hives is to have continuous harvests when we start. For example, when we harvest from the first 50, this will be followed by the next 100 and then later from the last 50. The cycle then goes back to the first 50.

My enterprise will carry all aspects of bee-keeping, which I have written about. For example, while the first batch of hives came with bees (colonised), we shall use 'natural' baiting for the second batch. Furthermore, while some of the hives will be placed on wooden stands at three feet high, we will put a few in the trees to gauge how both of them perform. I will also buy more advanced hives like the latest Langstroth (CAB) hives to check out their performance. These, though seemingly expensive can produce as many as 40kgs of honey.

Setting up the hives

On Thursday, November 9, the first 10 hives were set up. Nsubuga, who has practiced apiculture for over 20 years, came with his team to 'place' and 'sit' the hives. Nsubuga came with his swarms of bees, which he placed in the hives. Nsubuga used plastic buckets to create the stands. He told me that the buckets also act as the plates on which food for the bees is put.

Bees should be fed. After setting up the hives, Nsubuga bought and prepared a sugar syrup for the bees to feed on. The syrup is prepared using one part of water and another of sugar. This has to be done until the bees start producing honey.

The first 10 hives are now set. Nsubuga still visits at least twice a week to check on the bees.

There are many predators including red-ants, termites, wasps, mice, rats and beetles that affect bees in the hives.

Insects such as beetles, termites, weaver ants, bee hornets and wasps as well as mammals like the mongoose can attack bees, thereby reducing honey production



A bee hive set on a bucket which acts as a stand and a plate where food is placed

Dealing with bee pests

There are a wide range of pests that attack bees, thereby reducing honey production. Some of these are insects like termites while others are reptiles or even mammals such as the mongoose. Insects include hive beetles, termites, weaver ants, bee hornets and wasps.

To stop the attacks, I was advised to carry out the following interventions. To stop bee hornets, look for their nests near the hives and destroy them manually. To stop termites, smear burnt engine oil on the hive stands to stop them climbing up.

Rats can be stopped by ensuring that the top cover of the hive is well set because that is where they pass to access the hives. You can also use a heavy object, placed on top of the cover to keep it in position. To control wax moth, use improvised bottle traps with vinegar and water. Plastic mineral water bottles can serve the purpose.

The moth will be attracted into the bottle and it will not come out. We used an insect repellent to deter insects at the base of the buckets. This will also be done when we place the stand poles for the next 40 hives.

How to attract colonies In hives It is easy to have hives on the farm, but it is another thing having them colonised by bees. Nsubuga told me that having many hives colonised is the dream of every bee keeper. This is because the more hives colonised the more money a farmer expects per harvest. This is the reason I chose to have the first batch 'artificially' colonised.

However, Adam Candia, a bee farmer from Luwero district, told me if bees take long to colonise hives, you can use a bait to attract them into the hives. Baiting involves the application of attractants such as melted

Budget for the first phase

- Expenses for the 50 hives
- Sh4.2m for the hives
- sh500,000 for buying buckets for the first 10 hives and preparing wooden stands for all the 50 hives.
- sh150,000 for a complete set of bee-keepers suit, including gloves and gumboots.
- Smoker-sh45,000.

Expenses to come

- sh8.5m for the next 100hives to be set between January and March next year
- Sh1m for placing/sitting the hives
- Sh4.2m to buy another 50hives between April and June next year
- sh500,000 for placing/sitting the hives



beeswax, propolis, honey and lemon grass extracts in the bee hives. These can be got from other bee keepers. This is exactly what we shall do for the second batch of hives.

Swarms can ran away

When Nsubuga delivered the colonised hives, some of the bee swarms flew off. "By the time I brought the bees here, they were ready to separate," Nsubuga said.

Swarming is when a colony divides with one group remaining in the original hive while the other group goes away. These are the swarms that you see flying away in a group.

You need to catch the swarms by setting up catcher boxes/empty hives. The swarms will most probably go for these boxes. You can collect these swarms if they settle on a tree or hanging branch by shaking them into a catcher box.

Colonies of desirable traits can be divided to increase the number of colonies in an apiary. Such colonies should be selected from those with high honey productivity, high reproductive nature, resistance to pests and diseases and should not have absconding behaviour. Select some brood combs and some honey combs from the colonised hive and place them into an empty hive. The combs must have some adult bees in them.

Ready for the second batch

The second batch of 40, 'improved' local hives will be set up in early December and we expect the 'sitting', 'placing' and baiting of the hives to last at least one week. The hives have already been made and are only awaiting delivery. Look out for the second part, explaining how the batch from Lira district was set up. Next month, look out for tips on how to set up the 'improved' local hives.