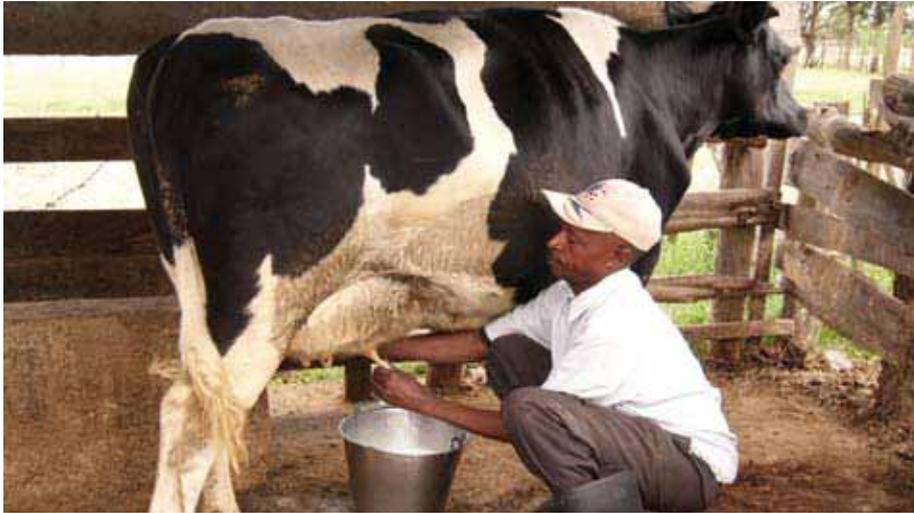


The Organic Farmer

The magazine for sustainable agriculture in Kenya



Nr. 26 July 2007



Many farmers lack good quality dairy cows to increase milk production

Photo TOF

Cows too expensive for farmers

Small-scale farmers are yet to benefit from increased milk prices, due to lack of good-quality animals.

The Organic Farmer

One of the most important changes that have taken place in the agricultural sector in the last four years is the revival of the dairy industry. The revival of the Kenya Cooperative Creameries (KCC), together with increased competition from the many private processors, has led to good prices for milk and its by-products. However many farmers are yet to reap the benefits of these good prices. One reason is that most farmers had already sold their dairy cattle when the KCC, which was the major buyer of milk, collapsed in the 1990s due to mismanagement. The majority of our farmers lack good-quality dairy cows that would enable them to increase their milk production and improve

their earnings. One of the questions most frequently asked by farmers to TOF is how they can acquire good dairy cows.

To purchase a quality dairy cow nowadays is not easy, as the prices have suddenly shot up. Even poor-quality heifers today sell for between Ksh 15,000 to 20,000, and high-quality breeds now go for between Ksh

TOF on air!

On Thursday of every third week of the month, you can hear *The Organic Farmer* on the Kiswahili Service of KBC from 8.30 pm to 8.45 pm. Learn more about organic farming! In the next programme we will talk about legumes, on Thursday 19th July, 2007.



100,000 to 120,000. This is beyond the reach of many small-scale farmers. A few farmers have managed to restock through credit from the Agricultural Finance Corporation (AFC). In order to obtain a loan from the AFC, a farmer has to deposit their title deed as security. Since the majority of farmers have no title deeds, they therefore cannot qualify. It is really sad that there is no credit scheme that can assist most of Kenya's small-scale farmers to acquire good-quality dairy cattle.

Kenyan milk consumption per person is amongst the highest in the world. More than 600,000 smallholders, with between one and three cows, currently produce 80 per cent of Kenya's milk.

Dear farmers,

If you hold this issue of *The Organic Farmer* in your hands, you might feel that something has changed. You are right. We have used a slightly thinner paper, and for one simple reason: We have increased the number of copies from 14,000 to 17,000. This means that with nearly the same amount of money, we can print 3,000 more copies for you.

No doubt, the story of *The Organic Farmer* magazine is a real success story. In the last few months, we have been receiving at least 10 new applications from farmers' groups every week. At the same time we get at least 10 letters from farmers' groups asking for more copies (indeed almost all letters to the editor on page 7 are sent by farmers who want more copies). We reach nearly 2,000 groups throughout the country. According to our research, every issue is read by an average of six people— that means that we reach about 100,000 farmers every month.

We thank the Swiss foundation, BioVision, for the commitment it has shown in helping small-scale farmers in Kenya. BioVision supports both production and delivery of the magazine in the hope that farmers will use this free information to improve their farming methods. For us, investing in farmers' education is a worthwhile venture.

Several times people have asked us these simple questions: Do farmers try out the various tips you give in their day-to-day farming activities? Are they changing to organic farming? Of course, we do not know how many farmers take our advice seriously. We do know, on the other hand, that farmers are cautious people; they do not want to make mistakes and lose their precious crops. But we do have some indications that farmers are really interested in trying some of the ideas we provide in TOF. After we carried articles on dairy goats and mushrooms production, dozens of interested farmers, eager to start these enterprises, made enquiries to our magazine and to the addresses we had given.

Every month, we send quite a number of past issues of the magazine to farmers who want to catch up with articles they missed. We have tried to do our part by providing you with the appropriate information, but you farmers also have to do more to make farming a rewarding occupation.

Editors

in this issue



Rabbits produce high-quality meat. Their manure is suitable for organic farmers. First of all, rabbits can provide farmers with an extra source of income. Pages 4 and 5

MY OPINION

In mid-June, the Government released 860 million for payment to farmers for maize delivered to the National Cereals and Produce Board in January and February this year. Up to now quite a number of farmers are yet to be paid for maize delivered in the same period. One can only imagine the problems these farmers have faced in purchasing of essential inputs such as fertilizers, seeds and even other expenses such as payment of school fees. What would the Minister of Agriculture and those responsible at the Cereals Board say if they got their salaries six months late?

John Karanu, farmer, Nakuru

The Organic Farmer

The Organic Farmer is an independent magazine for the Kenya farming community. It promotes organic farming and supports discussions on all aspects of sustainable development. *The Organic Farmer* is published monthly by ICIPE and distributed free to farmers. The reports of *The Organic Farmer* do not necessarily reflect the views of ICIPE.



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Layout

In-A-Vision Systems (k)

Find a safe place for beehives

The apiary is a place where beehives are kept. It is important to look for an ideal site.

Eliud Muli*

After our articles appeared on beekeeping (TOF Nr. 25, June 2007), we received many responses from farmers wanting to know where to place the beehives. That is why we publish additional advice here from a bee expert at ICIPE. Once all the equipment has been acquired, the next thing is to decide where to put the apiary. Simply said, an apiary is the site where a number of honey bee colonies are located.

Where to place hives

Finding an ideal site is sometimes a problem. Some major considerations are listed below.

- Owing to the defensive nature of African bees, it is not advisable to place hives right on the farm but rather near it (about 150 – 200 metres away from the crop or homestead).
- Hives should be placed in such a way as to minimize drifting (accidental entry by bees returning from a flight into the wrong colony).
- Hives should not be too far apart, to reduce the amount of walking by the beekeeper when servicing the colonies at inspection.

An ideal apiary site should be:

- quiet and away from public utilities (schools, hospitals, playgrounds), and noisy commercial and industrial areas;
- near a freshwater supply – river banks, fish ponds, lake, dishes of water or dripping tap;
- near food (pollen and nectar) sources and crops that need pollination – citrus, avocado, coconut, eucalyptus, acacia, etc.;
- fairly dry – not in swampy areas; humid areas promote fungal diseases and hinder proper honey curing;
- away from unfriendly neighbours and hidden to avoid vandalism;
- easily accessible to the beekeeper throughout the year, to ensure that bees can be moved away at short notice should the need arise;
- with sufficient shade, especially during hours of the day when the sun is hottest; sheltered from winds;
- far from farms where there is insecticide usage.

Shrub or hedge rows that separate the hives both from each other and from dwellings can help minimize stinging incidents. If bees are particularly

defensive, it may help to work with the colonies at dusk.

How to place hives

After beehives and sites have been acquired, the next step is to prepare hives for installation:

- Clean the hives to get rid of dirt, spider cobwebs and other debris.
- Bait the hive (beekeepers use raw beeswax or propolis among other baits, and rub them against the inner walls of the hive).
- For installation, a hive can be hung from a tree or from posts or installed on a platform or a rock. This is a decision for the farmer to make – according to his personal preference or depending on prevailing conditions in their locality.

Use of wires

Advantages of using hanging/suspending hives:

- It is cheaper compared to constructing hive stands.
- There is less danger from predators (e.g. lizards) and vandals.
- Suspended hives are better protected from floods and are not easily carried away by flood water.
- It is easier to control ants.

Disadvantages

- Suspended hives usually swing during inspection and bees tend to become more defensive.
- It is not easy to change the location of the hive.

Use of platforms

Advantages of installing on platforms:

- It is easy to place or remove the hive from the stand.
- The location of the hive and stand can easily be changed.
- Installed hives do not swing during examination, thus bees are not unduly disturbed.

Disadvantages

- Grazing animals can easily knock the hive over. A colleague from Uganda once narrated to me the chaos in a rural village when a pig strayed into an apiary and knocked down a hive full of bees!
- Predators can more easily gain access to the hive.
- It is more tedious and expensive to make reliable stands than to buy metallic wires for hanging hives.
- Installed hives are more prone to vandalism: it is a matter of only lifting the hive and carrying it away.

* Dr. Eliud Muli is a scientist at ICIPE in charge of Apiculture

Many farmers have problems with tomatoes

Every week we receive questions asking for advice on early blight, late blight and spider mites. Although we have answered such questions in previous issues, we again give some helpful tips. Organic farming standards allow the use of copper oxychloride (WP) in the fight against blight. We will write about spider mite in the next issue.

Early blight

Strong plants grown in humus-rich soil and fed on compost are better able to resist diseases such as early blight.

Seeds: Early blight is a fungal disease and is seed-borne. The first step to avoid damage is to buy certified disease-free seeds, and to use resistant varieties, e.g. Summerset F1, Zest F 1.

Transmission: The fungus survives from one season to the next in residues of infected plants, particularly if the soil is dry. The spores (the microscopically small 'seeds' of a fungal disease) are formed on infected leaves, stems and fruits, and can be spread by the wind and splashes of water. A combination of warm weather and rain produces serious outbreaks, particularly if plants are stressed by poor nutrition, nematode attacks or by having too many fruits.

Planting: Do not plant consecutive tomato crops on the same land from one season to the next. Do not rotate

tomatoes with related crops such as potatoes, peppers or eggplant. Stake plants to keep them off the soil and keep tomatoes free of weeds. After harvest, residues should be removed from the field or destroyed immediately.

Control: In organic farming, fungicides except for copper oxychloride are not allowed. There are several plant extracts that help in controlling fungal diseases, including:

- African marigold: Fill a drum ½ to ¾ full of flowering plants. Leave to stand for 5 to 10 days. Stir occasionally. Strain before use. Dilute the filtrate liquid with water at a ratio of 1 part filtrate to 2 parts water (1:2). Add 1 teaspoon soap to every litre of the extract.
- Garlic: Bulbs may be dried and crushed. Add water to the powder and spray.
- Milk: Spray every 10 days with a mixture of 1 litre milk to 10 – 15 litres water.



Tomato leaves and fruits affected by late blight

Late blight

Late blight is one of the most serious diseases in cooler and moist conditions and may completely and rapidly destroy the crop. The leaves turn brown; under humid conditions, a white dusty layer that contains the spores can be seen on the underside of the leaves.

Seeds: There are no certified disease-free seeds on the market.

Transmission: When the weather conditions are cool and moist, the spores spread very fast. Splashes of water can transfer the spores from plant to plant. Wind can carry them much greater distances.

Planting: If you plant tomatoes in a field after Irish potatoes, remove all tubers, as the remaining potato tubers

in the soil after harvest can be a source of the disease for crops which follow. Crop rotation with crops that are not from the tomato family (e.g. maize, beans, sukumawiki or cabbages) for 3 to 4 years helps to break the disease cycle. After harvest, remove the residues or dig them deep in the soil. There, the fungus does not persist for long.

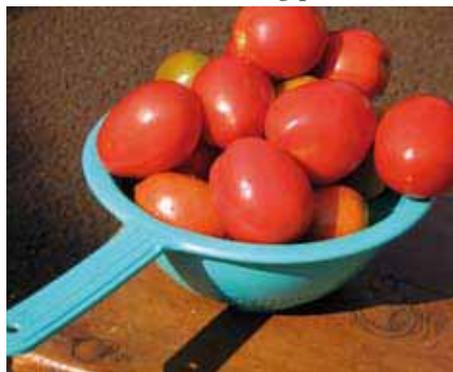
Control: Use wider spacing. Prop up the plants to keep them off the soil. Mulch to reduce splashes. Pruning will increase air movement, reduce humidity within the crop and thus reduce disease intensity. If you irrigate, do it in the heat of the day; this allows the crop to dry before nightfall and reduce transmission and development.

In wet weather, sprays should be applied as soon as the disease is seen. In organic farming chemical fungicides are not allowed. There are plant extracts that help:

- Onions: Use 100 grammes of leaves per 1 litre water; let it stand for 4 to 7 days in a covered container before spraying.
- African Marigold: Crush 100 – 200 grammes of leaves, roots or flowers. Pour on 1 litre boiling water, soak for 24 hours, add 1 litre of cold water, spray.



All Photos courtesy of ICIPE. Recommended further reading: A Guide to IPM in Tomato Production by Ana Milena Varela, Abdurabi Seif and Bernhard Loehr, published by ICIPE Science Press, Nairobi 2003.



Rabbits are good for meat and income

Rabbits provide quality meat and manure; they are also a good source of income.

The Organic Farmer

Rabbit-keeping is one of the simplest farming activities, although it is not very common in Kenya. Many people keep rabbits as a hobby or as pets. If kept clean and well fed, rabbits take a short time to mature. There are three common breeds:

California White: This rabbit is white in colour with black ears, nose and tail. It weighs 7 to 8 kg. With good spacing, it is able to kid (produce offspring) four times in a year, giving around 8 kids each time.

New Zealand White: This rabbit is pure white in colour. It weighs approximately 8 kg. It also kids four times in a year with good spacing. It can produce between 7 to 15 kids each pregnancy.

Flemish Giant: The colour of this rabbit is light grey to black-blue. It weighs 6 kg when fully grown. When cross-bred with other breeds, the offspring reproduces even more than the parents. It is also bigger in body size.

Meat not the only benefit

The most important benefit of rabbits is their meat. As yet, the meat is locally not very popular as in many other parts of the world, but in Kenya rabbit keeping is slowly becoming more popular. In Kenya a mature rabbit weighing 7 kg goes for an average of Ksh 500. Many local hotels prefer rabbit meat to chicken meat. According to John Mucheru, an extension officer with the Dairy Goats Associa-



Godfrey Gichuhi with some of his rabbits

tion of Kenya (DGAK), rabbits have many more benefits:

Rabbit urine: The urine contains a lot of ammonia and uric acid. It can be diluted with water at a ratio of 1:7 and applied on crops as a fungicide that helps to control most fungal diseases in plants. The urine also acts a foliar feed because of its high ammonia content.

Rabbit dung: The droppings are rich in nitrogen and phosphorus. Added to the soil, it helps give plants resistance against attacks by pests and bacteria.

Proper feeding is important ...

Organically grown rabbits have a higher nutritional value compared to conventionally kept rabbits (rabbits fed with commercially produced feeds). To rear rabbits organically, one has to select their feed carefully. Rabbits can feed on all weeds that goats feed on. On these feeds it is advisable to add Mexican Marigold; this plant contains certain substances that control parasites. To protect rabbits against intestinal worms, farmers should feed them with Nasturtium (Indian cress).

... and so is cleanliness

If rabbits are neglected, they are susceptible to the following diseases:

Coccidiosis: The disease occurs when feeds are contaminated with dung (especially from poultry) or when they feed on wet fodder. Signs and symptoms of coccidiosis include diarrhoea and inability to feed. The best way to prevent this disease is to ensure the rabbit house is always kept clean. In case of an outbreak of the disease, amaranth seeds and cucurbit (plants of the cucumber family such as cucumbers, zucchini, melons, etc.) seeds are used to provide lost energy and nutrients to the rabbits. Aloe vera (the white milky liquid in the leaves of the plant) can be used to prevent or cure the disease.

Pasteurelosia: Occurs when the rabbits are exposed to the wind. It affects the lungs. A sign of this disease is abnormal breathing. The only way to prevent the disease is by protecting the rabbits from the wind. This can be done by covering the hutch at night.

Pneumonia: This disease arises by exposure of rabbits to wind. It also occurs when the droppings are trapped in the hutch. The decomposing waste releases ammonia which when inhaled into the lungs causes pneumonia. Protection of rabbits from the wind and making sure that drop-



Californian White



Flemish Giant



New Zealand White

(Photos TOF)

pings do not build up on the floor will help to protect the animals.

Good housing

Rabbits are very sensitive to diseases if not kept well. They rarely become sick if well taken care of and kept in proper housing and space for rest and movement. The hutch (rabbit house) should be properly built to provide a comfortable and safe place for their stay. The hutch should be 1 metre above ground to keep off predators. Rabbits naturally like dark places. The hutch should be a bit dark but with some light.

The leeward side (the side sheltered from wind) should be completely shielded. The material used to build the hutch should not leave any gaps that will allow wind into the hutch. The floor should be well constructed such that the panels or wood or sticks allow the free flow of urine. Farmers who want to trap the urine or droppings should place a trap (basin) under the hutch. ■

"My family likes rabbit meat"

Peter Kamau, Ruthagati

When 65 year-old Godfrey Gichuhi, a farmer in Ruthagati village in Karatina, started rabbit-keeping 16 years ago, fellow farmers in his village did not take him seriously. But he has proved them wrong. Rabbits have become a major source of his income, as well as providing his family with a good supply of high-quality meat.

"I keep rabbits for several reasons, the most important being the fact that everyone in my family likes their meat, which is soft and nutritious. The second reason is that they are a good source of income, and thirdly, because they provide me with high quality compost that contains all essential nutrients that the soil needs for crop production. I no longer use chemical fertilizers in my shamba," he says. Gichuhi's passion for rabbits started in 1991, when he attended a training course at the Kenya Institute of Organic Farming (KIOF). After the training he bought five rabbits from the Ngong Farmers Training College, where he received further training on rabbit husbandry.

Today, Gichuhi is one of the most prominent rabbit farmers in the



Gichuhi's awards for rabbit keeping (TOF)

country. Every year he has scooped the top prizes during annual Agricultural Society of Kenya shows in various parts in the country. Apart from being a major supplier of rabbits to farmers, schools and hospitals, he has been able to fill orders from across the borders in Tanzania and Uganda. Whenever the Ministry of Agriculture officials get enquiries from buyers, they refer them to him, which has increased his customer base and income. In a year, Gichuhi sells between 300 to 400 rabbits, at an average farm gate price of Ksh 300 to Ksh 400, making him an average of Ksh 100,000 a year. Sometimes the rabbits reproduce so fast that he has difficulties finding markets for them. He is now planning to set up a website on the internet to tap buyers in the international market. Gichuhi also keeps three dairy cattle and grows coffee and other food crops in his 7½ - acre (3 ha) farm.

Group campaigning for market

Together with other farmers who have embraced rabbit keeping, they have formed the Mathira Rabbit Keeping and Horticultural Fruit Growers. The 80-member group is carrying out a major campaign to educate fellow farmers and consumers on the benefits of rabbit meat and their production. "Many people who could not touch rabbit meat are now becoming consumers and they have started keeping them. This is a sign that many Kenyans could turn to rabbits as a cheap source of protein since they are easy to rear and require little space", Gichuhi adds.

If you need more information, contact Godfrey Gichuhi, P.O Box 137, Karatina, 0720 406 195



Northern leaf blight is difficult to control

How can one deal with the northern leaf blight? Despite good cultural practices in subsistence farms, the disease is still persistent in maize.

*Z.M. Kinyua **

As with any problem, proper diagnosis (identity) of a disease is important in determining how to control/manage it. Assuming that the farmers raising the question on how to manage northern leaf blight have correctly identified the disease, the following highlights might be useful:

1. The disease northern leaf blight is caused by a fungus known as *Exserohilum turcicum*, which attacks maize. The disease is also referred to as Turcicum leaf blight.
2. The disease is particularly damaging in high-altitude areas (above 2000 metres), under cool, humid conditions. This is opposed to the southern leaf blight (caused by the fungus *Helminthosporium maydis*) and northern leaf spot (caused by *Bipolaris zeicola*, also known as *Helminthosporium carbonum*), which are prevalent in warmer, humid environments.
3. Northern leaf blight may be controlled by applying the following measures, preferably in combinations:

Control methods

Field sanitation: Destroy diseased plant remains, for instance by ploughing under the residues soon after harvesting dry maize, in order to reduce the survival of the fungus. This will prevent attacks on a subsequent season's crop. Removal of lower leaves if they are heavily attacked is also useful in reducing disease spread.

Crop rotation: Avoid planting maize in the same field during consecutive seasons. Rotation allows the fungus to die due to lack of a host on which to multiply. Again, this is for the protection of subsequent maize plantings.

Use of resistant varieties: A variety named EH05272 has been reported to

continued on page 7

What can I feed rabbits in the dry season?

This question from Wellington Njeru, Kianyaga, and other farmers is easy to answer. Rabbits like to eat grass, weeds, garden and kitchen waste, however, during the dry season farmers have

difficult time because most of these feeds are in short supply. Rabbits need to feed on concentrates such as maize bran and pollard at this time of the year; however many farmers cannot afford to buy these concentrates as they are too expensive. Gichuhi cuts arrowroot tubers or bananas into small pellets, which he then dries and feeds the rabbits. He also feeds them with maize. Pellets are nutritious and can sustain the rabbits when other feeds are not enough. Rabbits can also be fed on good quality hay. To fatten them, rabbits can be fed with dairy meal, porridge or even bread.

Take care of rabbits

Many farmers keep animals in unhygienic crowded cages without adequate light and air. Organic Farming Standards demand that animals are kept in a clean environment with adequate space for movement. They should also be handled in a humane way to reduce injury and stress. Do not hold rabbits by the ears.

Watermelons don't like it too wet

What preventive / curative means on watermelons are possible in organic farming?

Watermelon and all other plants from the same family, butternut, pumpkin, zucchini cucumber, etc., generally all suffer from the same diseases. This is a family group that is prone to suffer from viral, bacterial and fungal diseases.

It is extremely important therefore that these plants are kept as healthy as possible. Have you ever noticed how the strongest and largest pumpkins grow around compost pits? In learning from this we realise these plants need a lot of nutrition, they are heavy feeders.

To avoid heavy fungal infections on the leaves that are normally due to powdery mildew or downy mildew, we must recognise the conditions in which fungi thrive, and avoid them. Fungi thrive in areas of high humidity. Thus, when planting in areas of high humidity, make sure to have adequate spacing between the plants, resulting in good aeration around each plant.

Further to this, plants that are in areas with water logging or too much water are easily subject to soil-borne bacterial diseases. This is obvious when the plant starts to wilt and leaves easily rot off the main stalk. It is wise to make sure soil drainage is very good and irrigation is controlled if using



Water melons are heavy feeders

Su Kahumbu answers your questions

Write to

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this method of watering. Overhead irrigation and rain will also result in the spread of both bacterial and fungal diseases in this plant family group.

Remove infected plants

Finally, these plants can also be subject to virus diseases. This is when the leaves, especially the new growing ones, are mottled, veiny, curled and scrawny looking compared to healthy leaves. Insects and pollinators can spread viral disease from plant to plant. In the case of viral and bacterial



What about hedgehogs?

How can I control hedgehogs and squirrels?

Squirrels love to eat seeds and often dig up newly planted butternut, zucchini, cucumber, etc. Fortunately I do not have the problem on my farm, though I have heard about a farmer who does the following. After planting, he sprinkles dried crushed chillies around and over the seedbed or seed holes. Squirrels love to pick the seed in their hands and chew on them. As they walk over the chillies, their feet and hands are contaminated. The resulting chillie taste soon deters them from the field or area.

I imagine the same application of crushed chillies may be a good deterrent to hedgehogs, though hedgehogs generally feed on small insects, slugs, snails, beetles and worms and are said to be insectivores. It is not likely they are damaging your crops or seeds. On the contrary, they are helping to control the bug population in your fields and should be encouraged. In many parts of the world especially the UK and other European countries, organic farmers encourage hedgehogs into their fields by creating conducive habitats, for example hedge rows, for the little animals. Some farmers even feed them to keep them around when insect populations are low!

infections, it is best to lift the entire plant as soon as you spot the infection and destroy it, preferably by burning.

Fungus infections, however, if detected early can be treated organically the following ways:

- Spray with milk diluted with water 1:5
- Soak 4 kg stinging nettle in 10 litres water, leave for 7 days then spray
- Spray with neem solution
- Spray with Thiovit (sulphur, accepted in organic farming and available from most agro- veterinary shops).

Guinea pigs are nutritious but not popular

"Can you print something on Guinea pigs?" asks a farmer (0723 006 508). They can play a major role to promote farm waste recycling and produce quality protein for human food".

You are right! Guinea pig meat is rich in protein, low in fat and cholesterol and is described as being similar to rabbit meat or the white meat of chicken. These animals, a little smaller than rabbits, are a staple food for the population of the Andes, the high mountains in South

America. In Peru for instance (28 Mio inhabitants), people consume an estimated 65 million guinea pigs each year. Due to the fact that guinea pigs require much less room than traditional livestock and reproduce extremely quickly, they are for rural and urban families a more profitable source of food and income than many traditional animals, such as pigs and cows. Guinea pigs were once popular laboratory animals for scientific research. Since the middle twentieth century, they have been replaced in laboratory experimental test in many countries primarily by mice and rats.

In Africa and Kenya people tend to see guinea pigs more as rats, they refuse to eat them. In April 2007, the

Daily Nation wrote an article about a farmer in the outskirts of Eldoret, who is rearing guinea pigs and is totally desperate: he can not find buyers.

(TOF)





Letters to the editor

Radio programme helped us know you

Khwisero United Farmers Organization is a community-based civil society organization currently operating in four sub-locations of Khwisero Division with the following objectives:

- Access to marketing systems of their products
- Access to modern farming technologies
- Soliciting for assistance from the government and other well wishers and addressing food security within our divisions.

On farming technologies, we collaborate with research organizations such as ICIPE, KARI, KEFRI, AATF etc. to reduce striga weed, which is a major problem affecting food security in this region. In your programme aired over the radio, you mentioned *The Organic Farmer* magazine of April which featured mushroom farming. Our group is very much interested and wishes to kindly request if you could be sending us copies of your monthly publication. We will ensure that they reach all members of our group. We enclose a copy of our registration certificate.

Drecky E. Okeno, P.O. Box 125-50101, Butere

Dear Drecky, we will send you the issue on mushroom growing. Let us know about your experience in the fight against striga. We are very interested to know more about the problem.

Northern leaf blight a problem

continued from page 5

be 'resistant' to Turcicum leaf blight. It is a late-maturing variety suited to highland areas (between 1800 – 2200 m). More information on availability of EH05272 seed may be obtained from KARI's Maize Breeding Programme or Dr. George Ombakho (Email: irmaktl@africaonline.co.ke). You may also assess various varieties that are available to you for their tolerance/resistance to the disease by planting them in portions on the same field; select the most promising ones (the ones that show no sign of the fungus) for large-scale planting in subsequent seasons.

* Dr. Kinyua is a plant pathologist at the Kenya Agricultural Research Institute, National Agricultural Laboratories (KARI-NARL), Nairobi.

Our soils improved

We are a registered group dealing with dairy goat breeding under the Dairy Goat Association of Kenya. As an organized group of 25 members we would be grateful to be sent your educative magazine. We learned about it from a friend and found it useful because we also practise other farming activities in our farms apart from goat breeding. For instance we do poultry keeping, dairy farming, maize, potatoes, carrots and beetroot growing among other crops, using EM compost and plant extracts. This group is in Malewa location, Kipipiri Division of Nyandarua District. As an organic farmer, I have experienced soil improvement in texture and fertility since I started using EM and compost in my farm. Also helpful insects like earthworms, sugar ants which attack aphids and cutworms in the farm have increased tremendously. Thank you.

Mwangi Kimani, Kimuru Dairy Goat, P.O. Box 5, Wanjohi

Tumejifunza mengi

Nikiwa msikilizaji sugu wa kipindi cha sikio la mkulima kila alhamisi, nimeweza kuwasikia mkizungumzia kuhusu kilimo hai. Ama kwa kweli nimeweza kujifunza na kujiongezea maarifa mengi ambayo ninajaribu kuyatimiza katika mradi wa kijamii ninaoendesha. Hivyo basi ili kuweza kufaridi vyema na kuweza kuwanu-ufaisha wanakijiji wenzangu hasa kutokana na mbinu bora za kilimo hai, naomba mnitumie nakala moja au zaidi ya *The Organic Farmer* hatimaye mko huru kuutembelea mradi huu ili kujionea yale ninayoyafanya mathalani ufugaji wa mbuziwa maziwa, ngombe wa maziwa, ufugaji wa nyuki, ufugaji wa kuku wa mayai na mengineo mengi. Asanteni sana.

Ali H Kimani, Care for the Earth Farm Project, P.O. Box 34-40602, Ndori

Tushirikiane

Kwanza pokeeni salamu zangu nyingi sana, nina wapongeza sana kwa kazi yenu nzuri sana ambayo imetuelimisha vilivyo ikiwa kwanza mimi ni kijana ambaye ninajishughulisha na kazi ya shamba, kama vile upandaji mboga na mimea ya migomba nita-furahia sana nitakapoon tunashirikiana vilivyo kupeana usaidizi kwa kazi hizi zetu. Kwa upande wa lile toleo nitashukuru sana nitakapopata

ili nizidisha maarifa zaidi kwa yale ambao yalikuwa. Sina ujuzi nao kwa vile ni mara yangu ya kwanza kuwasiliana nanyi tuzidisha ushirikiano kwa shughuli zote. Sina la ziada ila hayo.

Ronald Ben Nzomo P.O. Box 78, Mar-iakani

I heard you on radio

I am a small-scale farmer, and became interested in organic farming after listening to your programme "Kipindi cha sikio la mkulima". Now, please can you send me the magazine. I believe this will help me much in organic farming.

Lawi Mutuma, P.O. Box 6383 00300, Nairobi

A valuable magazine

We are farmers in Ol Joro Orok, Nyandarua District. We have found *The Organic Farmer* magazine very helpful. We are interested in becoming organic farmers. Include us in your mailing list.

Peter Kambo, Oraimutia Primary School, P.O. Box 344, Ol Joro Orok

More on zero grazing

We recently received a copy of your very useful magazine from another group in Kangundo. We would like to receive future copies of the magazine as our 25 members were all very impressed by the quality of articles and the many useful tips for dairy farmers. Please kindly put us into contact with somebody who can advise us whether we can conduct our zero grazing in an organic manner, what advantages there will be, and the costs sacrifices involved.

Soo Nzioka, Itethye Ngutethye Group, P.O. Box 814, Machakos

Dear Soo, we will send you some copies of an article we carried in our magazine in our March 2007 issue. We hope this will provide your group with the information you need.

Dear Farmers,

If you have any questions or ideas for articles, or if you would like us to publish experiences about your shamba or within your farmers' group, please contact us. We shall get back to you!
SMS ONLY

Tuma maoni yako! Asante.



tips and bits

from farmers for farmers

Blackjack is not just a weed!

As we are getting on with our farm work, I would like to share some practical advice on the so called "weeds". In almost all systems of cropping, weeds are quoted as a big nuisance, causing yield disadvantage to farmers. To get rid of these weeds, herbicide use is promoted by most farmers and the cost is very high. Therefore, agro-management of these weeds in a useful manner is important.

Keep weeds as secondary crops. Farmers should be taught the value of these so-called weeds and how to harvest and utilize them for their own well-being. Let me take you quickly through a known plant (called a weed by many): the blackjack or Latin, *Bidens pilosa*. Honestly, this plant does wonders both health-wise and environmentally in general. *Bidens pilosa* is used as a vegetable (leaves), medicine (for intestinal worms, gas remover, natural antibiotic, eye & ear problems, malaria fever etc.); it is helpful as natural fertilizer, fodder and as insect repellent. In our botanical



garden, people normally get amused when they come across a *Bidens pilosa* garden and also when our workers collect the seeds. To be more precise, the plant can earn huge income to many if well utilized. Take a look: 150 grs. of *Bidens pilosa* tea goes for KSh 150, therefore 1 kg of tea will give you about KSh 1,050. Fellow farmers, just let us be honest when answering this question (you can text me or answer it through *The Organic Farmer*): How much do each of you spend in eradicating such weeds like the one I have mentioned?

Johannes B. Samikwo, Multiplan International Medicinal Conservation, Endebess, 0735 393 608, Fax: 054 311 26, Email: bosco-joannes@yahoo.com

Growing seed potatoes in mid-air

The alternative method can produce more seed and is cheaper than the methods used currently.

The Organic Farmer

The International Potato Centre (CIP) has developed a low-cost and affordable technology of fast production of potato seed without exposing it to soil-borne diseases. Local research institutions have inadequate land to multiply basic seed for sale to farmers. The new method known as aeroponics overcomes this problem by growing minitubers from disease-free plantlets in insect-proof screen houses. In this method potato seedlings are grown on specially made frames in such a way that the roots and the tubers grow suspended in the air without touching the soil.



Growing potatoes are suspended in the air

In the normal way, the production of minitubers is done on soil or compost-based substrate which has to be sterilized to kill disease-causing organisms. The new method avoids the need to disinfect the soil with harmful chemicals and keeps it healthy as well. The frames are covered with black plastic to keep out the light and the plants sprayed with a solution of nutrients to allow them to grow. The method is up to ten times more effective than the use of the conventional methods of seed production which produce less seeds.

Seed production cost reduced

The new technology also reduces the seed potato production cost considerably. Results show that up to 60,000 minitubers can be produced in a single 15 x 5 feet screen house. In the conventional production system, only 18,000 minitubers can be produced. Another advantage is that the tubers can be harvested at any size the seed user wants, say from 5 to 30 grammes. The KARI Horticulture Division has shown interest and is seeking funding to establish the technology within the National Potato Programme. ■

Market Place



Training: Baraka Agricultural College Molo, offers training opportunities for farmers, development workers and rural business people. The following courses of one week duration will be offered in July and August 2007: Dairy farming July 1-7, Bee multiplication July 1-7, Dairy farming July 8-14, Sustainable agriculture July 29-August 4, Introduction to beekeeping August 12-18, Bee equipment making August 19-25. The charges vary between KSh 6000 and KSh 8000, covering tuition, food and accommodation. The Certificate in Sustainable Agriculture course takes 60 weeks and the Diploma takes 57 weeks.

Baraka Agricultural College
P.O. Box 52 Molo, 20106, Tel. 051 731 091, Cell: 0725 777 421, email: baraka@sustainableag.org

Watermelon: I am looking for buyers of my watermelon fruits. They are not yet ready for the market but interested buyers can get in touch with me. Call Owino Tel. 0727 127128 Siaya.

Beehives for sale: I make beehives of type ORION 12'. Interested farmers can contact me. Karago, Ngorika Tel. 0734 961391 or 0724 245958.

Fish for sale: We run a fish hatchery called WISE Fish Hatcheries in Bungoma. We supply quality catfish and tilapia fingerlings. Contact us on Tel. 0723 006508. For orders we can arrange to deliver to the nearest town.

Indigenous trees: I am from Ngorika and I have indigenous tree seedlings for sale. Contact Daniel Mugi 0723 686960.

Indigenous chickens: I have 100 locally bred indigenous chickens for sale. Any buyer interested can get in touch with me. Chairman Kimasa Youth Group Tel. 0729 750707.

Rabbits for sale: I am a farmer dealing with rabbit production, and I am looking for markets. My rabbits are organically fed. Tel. 0724 857878.

Do you know this farmer? John Njagi, a farmer in Malindi would like to get in touch with Stephen Nguyo, a mushroom grower who also owns a hotel in Nyeri town. Do you know Mr Nguyo? Please tell him to contact Mr Njagi on 0722 171 518.