

The Organic Farmer

The newspaper for sustainable agriculture in Kenya Nr. 2 May 2005



Potato plant affected by Bacterial Wilt caused by *Ralstonia solanacearum*. (Courtesy: Dr. Z.M. Kinyua, KARI-NARL)

Potato production threatened

Kenya's potato production faces a bleak future unless steps are taken to control bacterial wilt.

By Peter Kamau

Our country is faced with bacterial wilt, a devastating disease that has spread to almost all potato growing areas and which has no cure. The disease, which contaminates the soil making it unsuitable for a range of crops in the potato family, is now found in more than 80 percent of the highland potato growing areas of the Kenya. So far the government has not taken any measures to control it.

Too few seeds

According to the director of the National Potato Research Centre in Tigoni Limuru Dr. Jackson Kabira, farmers can easily manage the disease through use of appropriate farming practices that include crop rotation.

The disease was controlled earlier through provision of healthy seed to farmers. Seed production would be done at the research center and later given to the Agricultural Development Corporation for multiplication and sale to farmers. But this is no longer possible because much of the land was grabbed. The Potato center itself had 250 acres for research and seed production; now only 50 acres are remaining after the institution's land was taken by private individuals.

"18 districts have requested us for seed in this planting season but we have no seed" says Dr. Kabira. "Before no farmer would come to us for seed because they would buy them from our multiplication centers in Molo, Meru and Njabini. This is no longer possible."

Important food crop

As a result of the disease potato production has gone down to 1.5 million metric tonnes from the country's potential of 9 million metric tonnes. Population increase in the potato growing areas has made it difficult for farmers to practise crop rotation, the most important method in bacteria wilt disease management as it allows the farmer to plant other crops which do not harbour the disease - causing bacteria thus limiting its spread.

Potato is an important food and cash crop in Kenya. It plays a major role in national food security and nutrition. The potato-production is set to expand as it extends to the traditional maize growing areas (see page 5)

Encouraging feedback

We are really surprised! The response from farmers across the country towards the launch of The Organic Farmer has been overwhelming.

By The Organic Farmer

We have got dozens of telephone calls, e-mails, text messages and a bulk of letters, some of which we may not be able to publish because of limited space. We would therefore like to thank all farmers for their response. We assure them that we are committed to providing accurate information on all pertinent areas in the agricultural sector.

But for these goals we need your cooperation. For example, after our last issue on pest control in stored maize, some farmers gave us additional advice for other methods. One of these is the use of Diatomite, a natural mineral compound mined at Gilgil area in Nakuru. Diatomite, which is readily available, is made up of small sharp edges. When insects come into contact with it their bodies are cut, dehydrating and killing them. In one of our next editions we intend to carry a story detailing the uses of this important compound in pest control. This interesting piece of advice on the use of Diatomite shows that The Organic Farmer can become a market place for information-sharing. That's why we urge you to pass the copies to fellow farmers in your locality..

We are still streamlining our distribution-arrangements. Many of the addresses we used to send out our newspaper to farming groups may have been changed. So we would appreciate if all farming groups confirm receipt of the newspaper. We are printing 10'000 copies every month, and we think that in the near future we may increase the number according to the needs of the farmers. This is a good sign of the growing importance of organic farming in Kenya.

In this edition:

Learning by doing

Su Kahumbu has taught herself organic farming *Page 4*

Compost - food for the soil

Making compost is easy if done properly *Page 6 & 7*

The problem with seeds

Farmers dilemma: organic seeds are not available in Kenya *Page 8*

MY OPINION

By Isaac Maina Munyari

Being a small scale farmer I know the challenge most of the farmers are facing in Kenya. One is the right information about good agriculture. Many of my colleagues use the wrong food production methods, which lead to poor yields and damage to the environment. One would wonder what the Kenya Governments priorities are if not in farming; 80 percent of the population of Kenya relies on agriculture.

Let me give two examples; The soil! Although many Kenyan farm-ers use the soil year in year out, they do not know how to enrich it to increase food production. It is well known that chemical fertilizers destroy the soil and are expensive. Farmers have a lot of fertilizer like, manure or kitchen waste.

Or let us look at the crops we grow! Of course we know that maize is one of Kenyas staple food. What farmers should also be going for is to grow other varieties which take less time, needs less inputs and fetch higher prices in the market. To achieve these changes, farmers need much more information!

Isaac Maina Munyari is an Organic Farmer in Subukia

The Organic Farmer

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A great supporter of farmers

Dr Hans Herren has made ICIPE a world renowned institution. He was a strong supporter of African farmers.

By Peter Baumgartner

To improve the food security, to strive for an agriculture which promotes the health of the people and does not harm the environment: this have been the most important goals Dr. Hans Herren has tried to achieve during his time as Director General of the renowned International Center of Insect Physiology and Ecology (ICIPE) in Nairobi. For more than a decade, from August 1994 until end of April 2005 Mr. Herren was in charge at the Institute.

The Millennium Institute in Washington (US) which he will now head has the vision of a sustainable



and more peaceful and equitable future for Earth by developing and providing advanced analytical tools for national and global development

Worldwide Respect

A Swiss national, Hans Heren has shaped ICIPE into an institution which became famous not only across the continent but far beyond; almost every farmer in Kenya knows ICIPE as The Organic Farmer could witness during the past few weeks when we met farmers across the country. Under the leadership of Herren ICIPE became famous worldwide; thanks to his many international contacts he found various sponsors for the research projects in favour of African

farmers. Their well-being was his greatest concern. Who-ever has been talking with him about African farming, about the problem of poor soils, crop rotation, the fight against insect pests with biological methods found in Mr. Herren an exciting, intelligent and experienced partner. He is not living in an ivory tower but is familiar with the worries the millions of small farmers are faced with. These are the people his Institute has tried to help.

His legacy at ICIPE includes establishment of major research and development divisions in environmental and biodiversity conservation, commercial insects for rural enterprises, and horticultural crops development. He also formulated the 4Hs concept that integrates Research and Development in the areas of human, animal, plant and environmental health.

Dr. Herren's work in improving the livelihood of the poor in the tropics has earned him several awards, among which are the prestigious World Food Prize in 1995 for his elimination of the cassava-mealybug; this pest was a big threat to food security in Africa.

The African and especially the Kenyan farmers owe Hans Herren, the co-founder of The Organic Farmer, a lot. It is their hope that he will continue to play an important role in improving organic and sustainable farming methods worldwide.

Neem-pesticides now available

In our last issue we introduced to you the Neem-fertilizer made by BIOP Company in Nairobi. In the meantime the Pest Control Products Board has registered two other important BIOP-products: the Neem-Extractive, which is a broad spectrum insecticide, and the Neem Cake Powder, which can be used as a fertilizer or pesticide. Farmers can purchase the products directly from the company, whose address is given below, or through their established stockists.

BIOP Company Limited
P.O Box 65101, Nairobi, Kenya
Tel : 020 861 680, ext. 3127 // 0720 458 931
Fax : 020 860 110 or 020 803 360
E-mail: Biop@icipe.org

A huge potential for export market

Kenya exports only 4 percent of its fruits and vegetables. 60 percent of these comes from small-scale farmers

By Eustace Kiarri Gachanja

Paul Nganga is a trained organic farmer. He grows oranges, avocados, Sukumawiki, cabbage, bananas and maize. In his two-acre market garden in Ruiru area in Thika district. He also keeps dairy cows, a few goats and free-range chicken. He is tired of middlemen who buy his produce at throwaway prices, so he sells the produce at his roadside kiosk.

Increased demand

A huge market potential exists for organic products in Kenya and abroad. Farmers however lack proper information on how they could market their products. As a result, the producers have been left at the mercy of middlemen who continue to offer low prices and sell at a premium in Nairobi and other major towns in the country.

Market information especially on prices are very crucial in deciding what to grow and when. It is not uncommon to see farmers producing the same type of crop, flooding the market and in the process bringing down the prices. The result is reduced earnings and decreased interest in farming.

Markets for organic foods are growing worldwide, as more people get concerned about where the food they eat comes from and how it is produced. Exports require a costly infrastructure such as cold chains, technical expertise and quality assurance procedures that are costly to undertake. This is the reason why only large companies or individuals with adequate capital investments are involved in the export trade. Does this mean then that small-scale farmers cannot access European markets? What Kenyan farmers need to know is that 60 percent of the country's horticultural produce exported to European markets comes from small-scale farmers contracted by large-scale exporters of these products.

In this arrangement the exporter gets



Farmers can increase their income if they can find good markets.

(Photo P. Kamau)

orders from say, supermarkets in Britain, Netherlands or Germany to supply a particular product. Sometimes he may not be in a position to produce the required quantity, so he contracts a number of growers to produce for him.

Out growers

The exporter will also provide the farmers with inputs such as seed. Farmers must repay the cost of these inputs when they receive the final payment for the crop.

For the last 40 years, export of horticultural products from the country has been the preserve of large-scale players. But in the last few years the government has taken a keen interest in the industry, which is likely to see the entrance of more players including small-scale producers into the export scene.

This is especially so with the restructuring of the Horticultural Crops Development Authority (HCDA) a state corporation under the ministry of agriculture whose main function include development, promotion, coordination and facilitation of the horticultural industry in the country.

The main function of HCDA is to link the farmers with the export markets. The corporation does this by carrying out market intelligence surveys and provides the information to farmers. "Kenya only exports 4 percent of its horticultural produce.

We are educating small-scale farmers so that they can exploit the huge export potential which remains untapped. What we want is to make them understand that farming is business," says the authority's principal marketing manager Anne Gikonyo.

Fruits

She says the main fruit crops that could be grown for export by small-scale farmers are avocados, french beans, passion fruits, peas, baby corn and summer flowers. Most large-scale growers are involved in production of flowers and horticultural crops. Efforts are also being made to develop the local markets for small-scale farmers.

The corporation provides a number of services to farmers that include training on production of fruits and vegetables, field monitoring of the crop, handling of horticultural produce and even pre-cooling facilities and pack houses in all major growing areas. It also has refrigerated trucks to keep the produce fresh until it reaches the market.

For details on export markets farmers can get in touch with:

Horticultural Crops Development Authority,
P.O Box 42601-00100, GPO
Nairobi
Tel. 254-020-827260/1/2/7/8
E-mail: hcda@wananchi.com
Website: www.hcda.or.ke

Pioneer discovers organic farming

Su Kahumbu is one of the most successful organic farmers. She supplies supermarkets chains, restaurants and homes in Nairobi.

By Patrick Mwangi, Tigoni

Before her mother became seriously ill after inhaling Dimethoate chemical sprayed on her tomato at their family home in Karen, Su Kahumbu had never thought she would take organic farming as a source of livelihood. But when she discovered that the poisonous fumes were the cause of her mother's painful diarrhoea and vomiting, Su resolved she would never use chemicals to grow crops again.

That was in 1999. Today, she is one of the most successful organic farmers now supplying fresh salads to supermarkets chains, restaurants and homes in Nairobi. The rented 10-acre farm she set up in Tigoni area in Limuru, about 40 kilometres from Nairobi is today covered by healthy shades of green and teeming with assorted fruits and vegetables growing without the use of chemicals.

"When my mother got ill, I said, if this is what chemicals are doing to people when they breath the fumes, what about the food we eat?" Su quips. "Organic farming is much more than protecting our health and the environment than anything else"

More benefit ...

She sells the salads to Nakumatt, Uchumi, several airlines and restaurants, Farmers choice and at least 50 home customers weekly. The crops include tomatoes, broccoli, lettuce, comfrey, carrots, strawberries, peas, radish and even maize. Su markets her produce under the brand name Nature's Organics, owned by Green Dreams, a company she founded with a partner in 2000. To ensure her products stand out, they are washed and packed neatly.

However marketing is a rigorous exercise involving tough negotiations with the companies. They sell her products at a higher price than conventional farm foods. This is because organing farming requires more labour than conventional agriculture. "It needs much less time to apply a bag of chemical fertilizer on the garden than to produce compost,



Su Kahumbus vegetable garden in Tigoni is a model for all organic farmers in Kenya.

(Picture P. Baumgartner)

and to spread it on the crops", Su says. "But the customers know my foods are healthier, so they do not mind paying a few extra shillings".

Su is assisting three local farmers to market their organic produce through her brand name so they can make a better bargain for prices. She trains the farmers on how to maintain standards and supplies them with seeds and free advice. Even though Su practises internationally recognized organic farming standards, she has not tried to sell her salads outside Kenya. "I do not think it is proper for Kenyans to grow healthy foods and sell them abroad with the numerous health problems here, we should eat the healthy foods ourselves", Sue adds.

... earthworms ...

Although she has no formal training in agriculture, Su learned her organic farming through books and magazines, enquiries from friends with kitchen gardens and experimentation on the farm. Her knowledge of organic farming is so extensive that she now appears an expert in this field. On one part of the farm, she rears earthworms in a trough filled with compost from which she drains water to squeeze out nutrients made by the worms to apply on her organic crops. She explains that the worms are able to "digest" farm and kitchen waste to produce nutrients that are more readily available to plants.

On another section of the farm is the



comfrey herb whose root system goes deep into the ground and brings nutrients to the surface for other shallow rooted plants to thrive on. It also has properties that hasten decomposition of compost.

... and pest control

To deal with soil pests, the farmer is developing healthy soils in which they cannot survive. Crop rotation is practised to keep pests off target crops. Stubborn pests such as termites are eradicated naturally by exposing them to diatomite, which lacerates their bodies, causing death through dehydration. Pymac, a pyrethrum extract is used in the soil as a fertilizer and pesticide.

As we leave the farm, one is left wondering what Su Kahumbu will have discovered in organic farming by the next time we pay her a visit.

How can farmers avoid bacterial wilt?

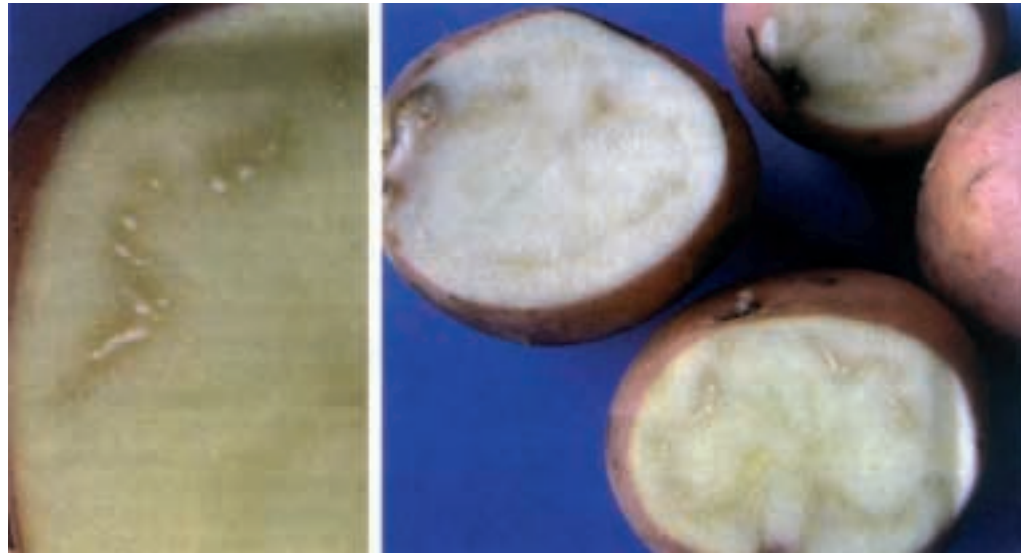
The disease can only be controlled through crop rotation and related measures that include careful seed selection.

By Peter Kamau

Bacterial wilt (see page 1) is a devastating disease that afflicts potatoes when the soil becomes contaminated through constant cropping. The plants stems affected die while tubers rot. The disease has no known cure but control is possible if only farmers can follow simple rules to manage it.

Crop rotation

One way to do this is to ensure they use only certified seed either bought from established seed growers or multiplication centres working with National Potato Research Centre. Where the potato crop has been affected farmers should never replant the field with potatoes or any other crop within the potato family. This includes tomatoes, bananas, eggplant, pepper and groundnuts. Fields affected by the disease should never be planted



Infected potatoes: The black ring and the white spots indicate the presence of the bacteria. (P. Kamau)

with these crops for a period up to four years. During this period farmers can plant other crops that are not attacked by the disease. This include beans, maize, cabbages and peas, lettuce, cucumber, sorghum, wheat, onions, carrots, sweet potato or grass.

Farmers should avoid buying seed

potatoes from neighbours. Farmers should always ensure they use healthy seed in clean soil.

Mode of infection

Infected seed tubers, crop residues, contaminated surface run-off water or even water used for irrigation, spread the disease causing bacteria. Infected soil, which attaches itself on shoes and farming tools such as jembes, fork or even tractors can transmit the disease. Wounds made by the tools during cultivation, nematodes and insects in the soil may also facilitate entrance of the disease into the potato roots.

Wilted plants can confuse farmers who may think its caused by lack of water; they can confirm this by cutting a tuber from the wilted plants and squeezing it. If a white creamy liquid (which contains the bacteria) comes out, this confirms the disease's presence.

Many weeds serve as alternative hosts for bacteria wilt and these must be removed to reduce the presence of the bacteria in the soil. Volunteer potatoes (those potatoes from the previous harvest which grow on their own) should also be removed. One fact farmers should not forget though is that the bacteria can hide itself in healthy plants especially in cool areas at an altitude of above 2500 metres. It will re-emerge when potato seed from these cool areas are planted in warmer lowlands; this is the reason why farmers should only buy certified seed which is tested for the bacteria.

Tips from potato-specialists

How to identify the wilt

- In rapid disease development, the potatoes do not change colour.
- In the long term the leaves turn yellow.
- The growth of the plant is stunted. Sections of diseased plant may wilt completely and dry up, while the rest of the plant appears healthy.
- There is a dark brown colour in the inner section of the stem.
- Heavily infected tubers have soil stuck to the tuber eyes.

How to handle infected plants

- Remove all infected plants and tubers, with the surrounding soil, and put them in a 2- foot deep pit and cover with clean soil, or burn them.
- Do not put diseased plants and tubers on your compost heap.
- The plants next to the diseased

plants should be harvested only for consumption, not for seed.

How to select good seed

- Use clean seed or tubers of tolerant varieties, bought from reliable sources such as Kenya Seed Company, stockists or farmer groups.
- Disinfect all tools with household bleach (Jik) before and after use.
- Avoid planting in low-lying or water-logged areas.
- Plant only whole, undamaged tubers.
- Weed regularly and cover the potato-crop proper with soil taking care not to damage roots and stems.
- Ensure that farmyard manure and compost are fully decomposed to avoid spreading disease.
- Check fields regularly for wilt and other diseases.
- Do not put diseased plants and tubers on your compost heap.

Enrich and feed the soil with compost

Experienced farmers maximize their yield with the use of compost manure. It is a long-term improvement of the soil.

By Eric Lumosi Asiligwa

Man eats to live. Some believe that he lives to eat. Whichever category you fall in, at any time men depend on food to energize their bodies for proper functioning. Without nutrients, they will emaciate to death.

Soil in itself has been one of the key factors to life. Plants grow healthy and of good quality yield if the soil is fertile. If land is repeatedly used for cropping, it tends to lose fertility. In this case, there is need to institute measures to improve soil fertility. In this issue of *The Organic Farmer* we will talk about vegetation compost. It is not the only way of deliberately producing organic matter; other methods are mulching, as we wrote in the past issue, green manure and planting of agroforestry trees will also contribute organic matter. In one of the next issues we shall write about this other methods including the correct use of manure and production of liquid fertilizer.

Local materials

The most effective way to improve soil is to recycle nutrients from local materials. Composting is one of the natural processes whereby organic matter is decomposed to humus. This provides an excellent source of nutrients for regenerating the soil. Composting offers a cheap means of ensuring soil fertility management without the need for expensive external inputs. Applied regularly over many years, it can improve the long-term productive capacity of the soil.

All waste plant and animal materials can be collected into a heap and allowed to rot down as compost. These include weeds, kitchen waste, feathers, urine, manure, stalks and so on. Materials such as glass, tins, plastic, broken crockery and other similar materials are inorganic and cannot be used. Material which is rich in nitrogen does not usually contribute to a good structure and thus does not allow air circulation if composted separately. Material which has good structure, usually has a low

nitrogen content and does not offer enough nitrogen for the bacteria to feed on. Mixing different materials thus helps to achieve a balanced nutrient composition and structure.

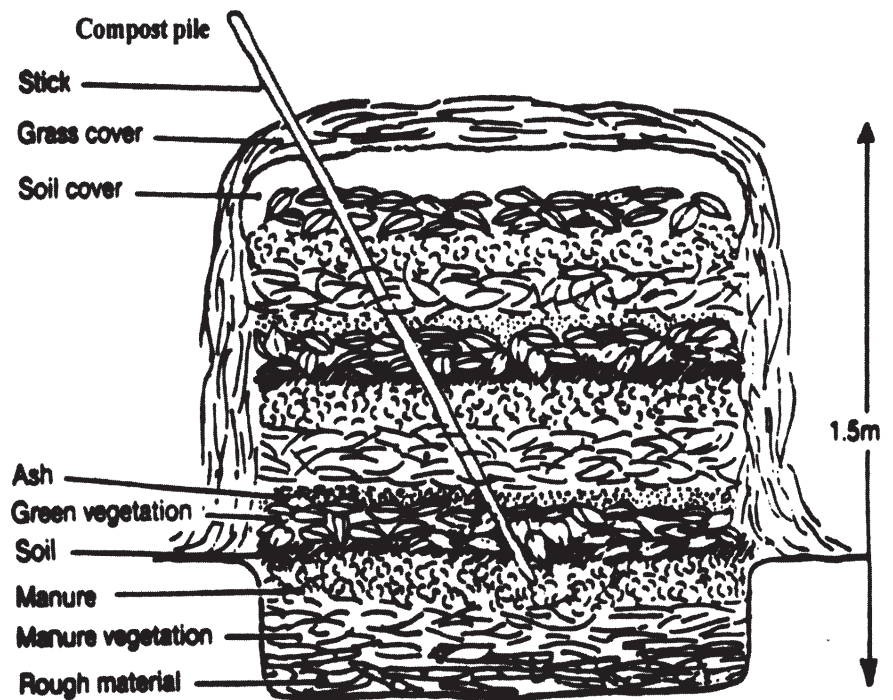
Helpful activators

Moisture and air are essential in the first stages of decomposition after three days, and as a result, high temperatures are produced within the heap. This first stage of decay, induced by bacteria is followed by fungal decay as temperature falls. The heap has to be turned regularly to let air in for a further bacterial stage which also needs to be moist.

Well decomposed compost should be dug in as quickly as possible after

spreading it onto the land. It should be mixed into the top 10cm of soil so that it is readily available to the roots of plants. Less decomposed compost should not be dug in but left as mulch with another grass mulch on top of it.

Farmers can also use a number of compost activators to speed up the decomposition. One of the cheapest method is to plant the comfrey-herb whose leaves are mixed with compost. Other activators are: EM-compositor (to make an order farmers can get in touch with Peter Chandi, Embu, tel 0733 546 491); another compositor is "bio-algeen quick compositor" (order at BESYP, P.O.Box 30105 Nairobi, Tel/Fax 020 572 476 //0722 700 190).



Construction of a compost heap

1. Choose a shady location and excavate a square portion of 150cm by 150cm. It must be possible to work on the compost without walking on it.
2. Loosen the ground where the compost pile will be made. It is best to make a shallow trench about 30 cm (1 foot) deep.
3. Set up the heap in layers beginning with rough materials such as maize stalks, leaves, branches and twigs,

followed by soil

4. The second layer should be manure or old compost, it should be about 10 cm thick. Sprinkle some soil to cover the material generally.
5. The next layer should be made up of green vegetable (grass, hedge cuttings or kitchen waste), about 15 - 20 cm thick. If you have wood ash, sprinkle some of the green vegetation, if not, use soil.

Continuation see page 7

Construction of a compost heap

Continuation from page 6

6. Then water the whole pile well.
7. Repeat the process, starting with rough vegetation, then manure or old compost, soil, green vegetation, ash or soil and water again. Build the pile to a height of one to one-and-a-half metres (around five feet).
8. Cover the pile all over with 10 cm soil, this prevents gases from escaping the compost pile. Lastly, cover the whole pile with dry vegetation to prevent loss of moisture through evaporation.
9. Drive a long sharp stick into the pile at an angle. After two or three days, decomposition will have started in the pile. The stick, when removed, will be warm. The stick supports the aeration and also helps you to check the condition of the pile from time to time. It will show whether the pile is dry or wet. If the stick is white, this is caused by a fungus called "fire fang" which destroys the compost when the pile becomes dry inside.
10. The pile must be watered occasionally, about every third day depending on weather conditions. If it is raining, there is no need to water. If "fire-fang" develops it is best to add water and turn the pile.
11. When all goes well, the pile should be turned after three weeks. Make sure that while turning the bottom part of the pile becomes the top of the new pile. This is important: rotting at the bottom goes slower than at the top.
12. After three weeks the pile should be turned a second time. Be carefully: the pile should be moist, not wet. When the pile has been taken care of well, there is no need for further turning. The finished cooked compost should be a dark, crumbly, sweet smelling substance. You should not be able to identify any of the raw materials used, except some woody branches as they take a long time to rot.
13. Three weeks after the second turning (in total after two to three months, depending on the materials used, the time of year and the climatic zone) the compost should be ready for use. If the planting season is still far away, let the pile where it is. The pile should be kept covered well with dry material, and it should be moist - moist, not wet! Good luck!

Letters to the editor

The paper fills the gap

Many thanks for the copies of the first edition of 'The Organic Farmer'. It is excellent and we in Baraka fully support you in the undertaking. We are happy with the general thrust and tone of the publication and feel that it will fill a big lacuna in the organic farming sector. For further details on what we do in Baraka you can have a look at our website. One of our five programmes is an area based programme to Kamara and Tenges Divisions so we have regular direct contact with farmers in both divisions. If you can send us up to 100 copies per month we will ensure that they are well distributed among interested students and the small holder farming community. Again, congratulations and wishing you success with this venture.

Tony Dolan, Principal, Baraka Agricultural College, Molo

Send copies

I have read the April issue of organic farmer it has taught me a lot. I kindly request you to send me monthly copies. I will be grateful.

Manoab Agorah, Maragoli

A breakthrough

Thank you for appointing me your agent for the distribution of the farmers newspaper. It is a major breakthrough in promoting organic farming in Kenya. The attached is a copy of my introductory letter to all the new recipients of the newspaper. It is expected to instill a sense of responsibility to enhance constructive assessment of the newspaper content and any worthwhile suggestions for future improvement on coverage of matters affecting organic farmers. I request you to forward 10 more copies of April 2005 edition. For logistical purposes, let me know your other agents in Kirinyaga district. Pass my best wishes to the publisher-ICIPE and the sponsors Biovision for their worthy contribution to Kenyan organic farmers.

J. T. Muriithi Simba, Sagana Organic Horticultural Growers (SOHGRO), Sagana

English or Kiswahili?

I have read through The Organic Farmer and I have found it to be a well thought out piece of work. Journalistically speaking, the design

and the content corresponds to the objective. However, my only worry is that 75 per cent of the rural farmers may not benefit from the information published in the magazine due to high illiteracy. May I therefore suggest that you consider turning the magazine into a bilingual (English/Kiswahili). If you don't have anyone to do the translation, then I can volunteer to offer my services. I'm a veteran journalist, so if you find the idea good, let's meet and discuss.

Nicholas Okeya

Dear Mr. Okeya! You have mentioned a real problem. In December 2004 and January 2005 we travelled throughout Kenya and discussed the issue of the language with a lot of farmers. The majority of them advised us to publish The Organic Farmer in English. Of course we would like to write in both languages, but we lack funds for this. Dear farmers and readers! What do you think about the language? Let us know!

A partner

On behalf of farmers, I would like to take this opportunity to thank you for sending me the magazines for the organic programme. I gave the newspapers to two farmers, one for our institution, one for myself and one for the primary school which is our neighbour. I will be grateful if you give me a chance to be one of your partners in this important venture. Please send us more.

Thanks, Rabab Nyangena

Dear Farmers!

Thank you all for your feedback! We got a lot of SMS's, e-mails, telephon calls and letters; we have published some on this page. We are very much delighted about your positive responses to *The Organic Farmer*. If you have comments or remarks, please write to us. If you have advice for your fellow farmers, send them to us. And if you have questions about organic farming, we will find experts who can give you the correct answers.

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Buy certified seed to boost production

Farmers in Kenya are yet to produce their own organic seeds.

By Abisae Amugune, Kaplamai

Organic farmers in Kenya will have to keep pace with their counterparts in the rest of the world in the development of this fast growing agricultural sub sector. One of the areas that is undeveloped is the production of organic seeds. Before any farm product is certified as organic, it has to undergo all organic processes from seed production to the final processing for marketing.

Kenyan farmers cannot buy certified organic seeds from other countries because the law does not allow it. To import any seed products or plants, an importer has to undergo a rigorous process of certification by the Kenya Plant Health Inspectorate Service (KEPHIS) and the Kenya Bureau of standards (KEBS).

Due to the global loss of natural heritage brought about by modern methods of seed production, organic farmers worldwide are encouraged to produce their own seeds. Farmers in Kenya should follow this trend if their products are to be certified. It is only the third generation of seeds that can be passed as purely organic.

Seed banks

One of the ways in which farmers can produce seed is to set up their own community based seed banks- this is a community managed seed storage facility in form of pots, gourds or



Not all maize can be used for seed.

(Picture P. Lüthi)

gardens. Farmers can select diverse seeds for storage to meet their needs in food production, for sale or exchange between themselves.

Development of local seed reserves would increase seed stock at farm level and reduce the cost of buying seeds. It would also facilitate production of seeds suited to local conditions.

Maize seed

But for the production of maize seed, farmers in Kenya would require more expertise and adequate land. It is therefore advisable for them to buy certified seed to help increase maize yield and income for the time being.

Thousands of Kenyan farmers do not use certified seed because of the

increasing prices. This is one of the reasons for the declining food production in the country. Unscrupulous traders often take advantage of the situation selling commercial maize packaged as genuine maize seed.

Apart from low yield, commercial maize peddled as seed maize is responsible for the transfer of diseases and pests such as leaf inflammation, stalk and the larger grain borer. Farmers should therefore be prepared to buy certified seed if they expect good returns from maize growing.

How to deal carefully with seeds

- Genuine seed stockists are provided with licences by the Kenya Plant Health Inspectorate Service (KEPHIS). Farmers should always request to see the licences or buy from reputable seed distributors to avoid buying fake seed from unscrupulous traders.
- All genuine maize seed must bear seed companies tags and KEPHIS inscribed labels.
- Cool and dry storage facilities are important and help keep the seed in good condition. Well stored maize seed can last upto seven years.
- Maize seed is treated with fungici-

des and insecticides. It should never be used for consumption.

- Farmers should be able to tell colour differences for seed maize from different companies.
- Although bean seed can be recycled for upto six times because they are self pollinated, farmers should buy Hybrid seed from seed companies to get better yield that are tolerant to diseases.
- Uncertified fruit seedlings especially from roadside traders are responsible for Black spot and Greening disease in oranges. Farmers should be careful on where to purchase seedlings.

The Organic Farmer in June:



- Drought resistant crops like sorghum are important for Kenya's food security.
- How can farmers make their own pesticides?
- What credit schemes are available to farmers in Kenya?