

The Organic Farmer

The magazine for sustainable agriculture in Kenya



Nr. 30 November 2007



Farmers lose a large portion of their harvest due to poor timing and storage (Photo TOF)

Avoid post-harvest losses

The longer the maize stays in the shamba after maturity, the higher the loss due to pests and rotting.

The Organic Farmer

One of the most important areas farmers tend to neglect is the timing of the maize harvest. Many farmers do not know when to start making preparations for harvesting. The result of delayed harvesting is pest infestation and the decaying of maize, especially during prolonged rains, while the crop is still in the shamba. Farmers in Kenya and most African countries lose between 15 to 40 percent of their harvest due to these two factors.

If you plant your maize in March or early April, then it should be ready for harvesting in October, especially in warmer areas where the maize matures early. This means that by September, farmers should be able to cut and stake the maize in readiness

for harvesting. Some maize varieties mature early. If allowed to stay too long in the field, the maize husks tend to open, exposing the maize to weevils and rainwater that is responsible for the yellow discoloration and rotting. Instead of using expensive chemicals to protect the maize from pests, there are several cost-effective measures that farmers can take, for example the use of diatomite. See pages 3 and 6.

Cassava

The new cassava variety Migyera produces six times more yield than the traditional varieties. See page 8



Questions? Go to Infonet!



Infonet is an information platform for organic farmers. Whatever you would like to know about the ecological methods for the control of pests and parasite infestations of plants, humans and animals – Infonet will have an answer. You just go to the Internet, either at home or at a cybercafe and type in: www.infonet-biovision.org

From January 2008 onwards you can order the entire Infonet-service on a CD. More about this in the December issue of *The Organic Farmer*!

Dairy farming is popular

Many dairy farmers have sent us questions on dairy cows and their management, following our articles on the same topic in our March and October 2007 issues. This shows that farmers want to improve the quality of their dairy cows. The problem is that most farmers have poor-quality breeds. On page 5, William Ayako (a livestock specialist at KARI) talks about the importance of breeding. Local farmers lack management skills; their dairy cows are not provided with quality feeds. They also require extension services to educate them on animal nutrition and breeding. See page 5

Dear farmers,

At this time of year, farmers all over the country are either harvesting or preparing to harvest their maize – reason enough to look at two problems facing our farmers: storage and marketing.

Farmers risk the danger of losing their precious harvest due to rotting and pest damage in the field and during storage. One of the easiest methods to save the harvest is to apply diatomite on the maize. This is a refined diatomaceous earth that kills pests, as you can read on page 6. It is cheap and sustainable. Diatomite works physically rather than chemically, so there is no chance of insects building up immunity or resistance against it.

Proper storage is even more important when it comes to securing good prices for your harvest. Since all farmers harvest and sell more or less at the same time, the prices tend to go down. Ideally, farmers should be able to store their maize a little longer until the prices are more favourable. Of course, we know that many small-scale farmers cannot wait. They have to sell their crop immediately in order to pay the school fees for their children and meet other pressing needs.

The situation is closely related to the other problem that is a major hurdle for small-scale farmers: marketing of their produce. Although they invest a lot of time and energy producing various crops, what they get in return is “nothing to write home about”. This is because the market is dominated by exploitative middlemen out to make hefty profits at the expense of the farmers.

Farmers should think of marketing even before they begin planting any crop. A clever farmer will always do a market survey to find which products are likely to fetch good prices at a particular time in the year. Such a farmer will not plant what everybody else is growing, but will carefully choose the types of crops likely to find a ready market and give him/her a good return.

When the crops are ready for harvest, there are modern ways to find customers, for instance using mobile phones, as the example from Tanzania shows (see page 4). Marketing is just one of the many challenges that face you farmers, and you have to find ways to overcome them. Proper planning is the first step. Careful planning is the foundation of any successful enterprise, and remember, farming is a business!

OPINION

Even in areas where agriculture has the potential to drive growth, widespread and significant poverty reduction will only be achieved when agricultural growth stimulates rapid growth in rural non-farm employment, with institutional development, markets and trade relations all eventually favouring the non-farm sector. Agriculture alone will not be able to drive the growth and structural change needed for poverty reduction.

Rethinking Agricultural Policies for Pro-Poor Growth, ODI-Papers 94, Sept. 2004

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.

The Organic Farmer is sponsored by Biovision, a Swiss-based foundation for the promotion of sustainable development.

www.biovision.ch



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Layout

In-A-Vision Systems (k)

Organic agriculture – a real benefit?

Organic farming is sustainable and ecosystem-friendly. But what is its real economic impact? A long-term study should give the answer to this and other questions.

The Organic Farmer

Numerous studies have given much evidence on the advantages of organic agriculture in terms of ecosystem services. Organic farming is now increasingly being taken up by farmers, non-governmental organisations (NGOs), national programmes and agricultural development agencies in tropical countries as a means to improve food security and rural livelihoods in a sustainable way. Demand for reliable data on the environmental and economic impact of organic agriculture is high, but thus far only a few attempts have been made to systematically compare this farming system with conventional practices.

Approach

To fill this gap, the Switzerland-based Research Institute of Organic Agriculture (FiBL) and its partners in the developing world are running long-term farming system comparisons of 10 – 20 years' duration in Kenya, India and Bolivia. Already a similar study in India shows that farmers growing cotton organically spend less on chemicals and got higher prices because organic cotton fetches more money in the market. The replicated field trials now make it possible to monitor the effects of organic agriculture on yield, yield stability, product quality, soil fertility and biodiversity, as well as on natural and economic resource efficiency. The impacts of organic agriculture on livelihood systems (for instance on farm income), education, health, gender relations and farmers' social mobility, will be studied in farm surveys.

In Kenya, the study focuses on a subsistence farming system based on maize and vegetables. It seeks to compare organic systems to conventional systems at two levels:

- the high-input levels that target farmers growing crops for commercial purposes and target external markets;

- the low-input levels that target farmers growing crops for self-consumption and for local markets.

The trial is being conducted on station in Chuka, Meru South district and KARI-Thika in Thika district of Kenya. The project started in March 2006 with the basic research foundations such as field preparations, preliminary farm surveys and definitions of the trial concepts and details. The first maize season with treatments was planted in March 2007 and will be followed by a vegetable crop in the short rainy season in October. The trial is based on a three-year rotation in which a cereal crop (maize or baby corn) will be planted in the first season every year and a vegetable crop (cabbage, kales, French beans, potatoes and African leafy vegetables) in the short season.



Objectives and beneficiaries

The strategic objectives of the study are to:

- place the debate on organic farming in developing countries on a rational basis;
- foster agricultural policy dialogue in the developing world;
- identify the challenges for organic agriculture in tropical countries

and thus gain the ability to address them in a targeted way;

- contribute to the development of organic and sustainable agriculture in developing countries.

The beneficiaries of the project will include farmers, marketing organizations, trading companies, consumers, agricultural NGOs, extension services, national and international research institutions, national authorities and development agencies.

The research is being implemented by the following partners: International Centre of Insect Physiology and Ecology (ICIPE), Tropical Soil Biology and Fertility Institute of CIAT (TSBF-CIAT), the Kenya Agricultural Research Institute (KARI), the School of Environmental Studies and Human Sciences of Kenyatta University, and the Ministry of Agriculture. The project is funded by Swiss Development Cooperation, Coop-Supermarkets, Switzerland, and Bio-Vision Foundation of Switzerland, the sponsor of *The Organic Farmer*. ■

Protect your maize from pests and decay

Post-harvest losses could be reduced considerably if farmers took simple measures to protect maize from pests.

The Organic Farmer

The major causes of post-harvest losses incurred by farmers are insect pests, rodents and development of mould. Farmers can greatly reduce these losses if they take the following measures to protect their maize:

Store preparation: A good store should allow space for air circulation

Metal silo: safe storage

The Catholic Relief Services (CRS) has devised a metal silo for storage of maize and other cereals to protect them from moisture, rats and insect pests. The silo is an airtight cylindrical metal structure constructed by trained local *fundis*



for grain storage. The metal silos come in various capacities ranging from 2 to 20 bags.

How to load the grains

Before loading the grains into the metal silo, tie the grain outlet lid with a rubber band. Open the grain inlet lid, then load the dried, treated grain, tie the inlet lid with a rubber band. Leave it airtight for 30 days in order to complete the life cycle of any weevils that may have entered with the grains.

Where to place the metal silo

Look for an appropriate place in your house in which to place the silo. It should not be exposed to direct sunlight or rainwater. Avoid water spillage on the metal silo. It must also be kept at least one metre or three feet below the roof. It must not touch the house walls. The silo must be placed on a platform. To remove the grains, untie the rubber band on the outlet lid, then place a container below the outlet. After offloading, put back the outlet lid and tie with the rubber band. A 10-bag metal silo costs Ksh 10,050 while a 20-bag one goes for Ksh 16,890. Farmers can make enquiries on the metal silo from the Ministry of Agriculture or Catholic Relief Services offices near them; alternatively, they can contact Mr Kin'goo Tel: 0733 262 543, Machakos.

at the lower end and even more space in the upper section. Pests like a warm environment, so if the store is well ventilated, it helps keep them away. If you stored your maize in the store the previous year, then it should be properly cleaned to remove any remains of the previous harvest, which could be harbouring pests. Weevils reside in cracks in the wood that is used to build the store; these cracks need thorough cleaning to remove any weevils before the grain is stored.

Sorting: Before storage, sorting of the maize is very important, as it removes any cobs that may have been damaged by insects and mould. Studies from West Africa show that sorting reduces the amount of damage in the stores by over a third. This ensures that the maize is as clean as possible and will not help spread the insect pests and mould to the rest of the clean maize. Shelling the maize will reduce pest damage since most pests prefer maize while still on the cob.

Drying: Shelled maize should be dried in the sun for three to four days to prevent mould, which could lead to aflatoxin poisoning. Drying in the sun also kills some of the pests already in the maize. There is an easy method to check if the grains are ready or dried enough for storage (see box below).

Fumigation

One of the most common ways used to kill pests is fumigation. But fumi-



Maize infested with the larger grainborer (above). The photo on the right shows the lesser grainborer. It is important to treat grains before they are attacked by the pests.

gation is not easy to do and is even dangerous if inappropriately handled. It is also costly, since one has to apply the chemicals every month. Furthermore, pests are developing resistance against fumigants. In organic farming, fumigation is not allowed. A much more efficient and cheaper way to fight all the pests in the stored maize is to use diatomite, which kills the pests. See page 6

How can you test for moisture level?

This is an efficient method to check if grains are dry and ready for storage. All you need is an empty glass or bottle and dry salt.

1. Put a handful of grains and half a handful of dry salt in a dry bottle or glass.
2. Shake for 2-3 minutes and allow to settle.

3. If salt sticks on the walls of the bottle, then the grains are not properly dried or have not attained the lowest required moisture content.
4. Dry your grains again and repeat the test.
5. If there is no salt sticking on the walls of the bottle, then the grains are dry and ready for storing.



Use your mobile phone for marketing

Sending an SMS can earn farmers profit and bargaining power while dealing with middlemen and traders.

Anja Bengelstorff

In today's tough business environment, it is not enough to know a lot about farming and bring in a good harvest. A farmer, more than ever before, needs to appreciate the value of information, especially about market prices of commodities in different markets, who is selling or buying what and where, who is transporting, who are the middlemen, and much more. The good news is that accessing this information has become easier than ever before. Just use your mobile phone!

Pushing Tanzanian farmers

Tanzania provides a good example of this. An initiative called 'The First Mile Project' aims to instruct and support Tanzanian small-scale farmers, traders, processors and others from poor rural areas to reach markets and get market information. Modern communication technologies like mobile phones, Internet and e-mail are instrumental to achieving this goal. For example, one member of a farmers' group is sent to market-places and finds out the current prices for various produce. From there, he/she sends those prices quickly via sms to other members of their group, who share the information among themselves or put it on a village billboard for everyone to read. Vital and current information is shared, such as prices and quantities needed.

By knowing the prices in the market, the farmers' group now has a bargaining power with middlemen or traders who approach the farmers on their farms and offer a price. Farmers can now compare the offered price with the one in the market and can calculate if they will make any profit. More importantly, they are able to negotiate a better price.

Value of information

This system works best when farmers are organized. If each member contributes a few shillings to enable one of them to go and find out prices at the markets, this will go a long way in increasing everyone's farm revenue substantially. In other words, farmers must be ready to invest and pay for the information and services that give them profit.



A mobile phone can link farmers to potential buyers, saving money and time. (Photo TOF)

"Most people don't know the value of information, unless they are used to dealing with it", says Joseph Kariuki, agricultural expert at the consultancy firm Cardno Agrisystems in Nairobi. "It's the attitude towards information that farmers need to change." Concerning the use of mobile phones, the scientist says passionately: "It is the most accessible technology in Kenya, but so far its potential remains hardly explored."

The Ministry of Agriculture does not have any measure in place to help small-scale farmers use modern communication technologies to increase their income. "We don't have enough information yet to implement country-wide marketing measures", says Kenneth Ayuko, Director of the Agribusiness Division in the Ministry, established in 2005.

SMS for 7 Shillings

The good news is that Kenyan farmers still have the chance to benefit from information transmitted via mobile phones and the Internet, even though on a rather small scale. The private company Kenya Agricultural Commodity Exchange (KACE) collects market information from as early as 4:00 am (0400 hrs) when major markets open, and sells it to inter-

ested clients. For example, it runs a sms service in cooperation with Safaricom, called SMS Sokoni, which provides daily wholesale buying prices of maize, potatoes, cabbage, beans and tomatoes at wholesale markets in Nairobi, Mombasa, Nakuru, Eldoret, Kitale and Kisumu, as well as buying and selling options for farm produce. A sms with the text "maize prices", for example, must be sent to the number 411. The sms costs KSh 7 in total. Per month, this service is accessed by 8,000 to 11,000 users only, admits Abraham Okolla, Marketing Manager at KACE.

Another option to access prices and trade information or to place an advertisement for any agricultural commodity is the Kilimo Hotline at 0900 552 055. The recorded voice mail costs KSh 20 above the normal rate. Only 2000 - 3000 callers so far make use of this offer in a month.

Farmers and buyers who have an e-mail address can subscribe to the electronic database RECOTIS, run by KACE. Every morning at 9:00 am, explains Abraham Okolla, e-mails are sent to subscribers with Kenya market prices for 25 commodities, including fruits and livestock. Also available is information about buyers and sellers. The membership rate for six months is KSh 5500; an entire year costs KSh 10,000. According to Okolla, about 500 subscribers reside around the world, but mainly in East Africa.

In addition, KACE runs 12 Market Resource Centres, mostly in western and central Kenya, from where farmers can obtain this kind of information as well.

Kenyan farmers stay away

In Kenya, the problem remains that too few farmers make use of this valuable but accessible information — and stay poor as a result. When they manage to organise themselves to share costs and have a stronger voice when dealing with wholesalers or processors, mistrust among individuals often makes farmers' groups fail in their endeavours. "Kenyans are good in individual enterprises, but they fail as a group", observes Joseph Kariuki. Abraham Okolla shares this experience. Kariuki suggests that, "Younger farmers' groups, familiar with mobile phones and the Internet, should be targeted for the use of communication technologies to demonstrate that it works". ■

Farmers show great interest in dairy cows

Our articles on dairy cows have generated a lot of interest from farmers. This shows that small-scale farmers realise the benefit of well-kept and well-fed cows and are

also eager to get information about breeding. On this page, William Ayako* answers some of your questions sent to The Organic Farmer magazine.

Boosting butterfat

May I know if cross breeding of bigger animals with smaller ones can increase or lower the milk production and boost butter content? Tel. 0720 063460

Depending on the breeds, say a Friesian for the bigger animal and a Zebu for the smaller animal, the offspring would have half the genes of the two breeds of animals. In this case, the potential offspring may acquire the vigour as a hi-breed to produce more milk. But in general terms, the chances of her producing as a Friesian are minimal. Yes, it would produce more milk compared to a Zebu. The butterfat content of the milk would be higher than a Friesian's since Zebu have low milk yield but higher butterfat.

The same scenario is likely to happen if you cross, say, a Jersey with a Friesian. Zebu and Jersey both have a higher butterfat index compared to a Friesian. It should be noted however, that milk composition can as well be influenced by the diet on which the animal is fed. Generally, high-energy diets such as good quality maize silage would tend to increase milk solids (all the other constituents of milk minus water), which include butterfat.

* Dr. William Ayako is a livestock scientist at the KARI Naivasha Animal Husbandry Centre



Proper selection of breeds improves the quality of dairy cows

(Photo TOF)

Careful crossing of breeds needed

Q. When a Friesian is crossed with an Ayrshire, the calf born is likely to be a Friesian. Is it upgrading or degrading of the calf? Maurice Abuoro, Rongo Tel.0720 063 460

The genetic merit of a large number of offspring will be the average of that of their parents. This means that some individuals will be genetically superior to the average of their parents while others will be inferior. The offspring of a Friesian and an Ayrshire would contain 50% genes of both breeds. In terms of milk production, a Friesian generally has a higher genetic potential than an Ayrshire. The off-

spring as a hi-breed could produce a similar quantity or more milk than a Friesian due to high-breed vigour. The breeding goals of the breeder may depend on whether he/she requires more milk, or higher protein yield/higher fat yield or to maintain the pure Friesian characteristics.

If the goal is to maintain a pure Friesian, then we could term the breeding plan as downgrading of the Friesian breed. A pure Friesian has 100% genes of a Friesian, whereas the crossbred calf in this case would contain only 50% of the Friesian. In this case, therefore, based on the genes, it would mean downgrading of the Friesian genetic makeup.

What can I do to enrich a ruminant diet?

Is it true that mixing highly nitrogenous feed encourages bull fattening? George Oyeng, Muhoroni, Tel. 0725 587 146

A ruminant's diet should contain at least 7% crude protein for efficient functioning of the rumen microbes to enhance better digestion. The crude protein content of the feeds is basically made of nitrogenous compounds.

A proper feeding plan should embrace this concept to enable the digestive system of the ruminant animal to work well. In a situation where the basic diet of the animal contains less than 7% crude protein, the population of the microbes in the rumen would be decreased to below the required level to enhance proper digestion of the feed. If this occurs, the performance of the animal in terms of growth and weight gain would be



Lucerne (top) and calliandra (bottom) are protein-rich feed for cows. (Photos TOF)



poor. The concept of mixing highly nitrogenous feeds such as forage legumes with low-protein feed like wheat straw would result in better performance. An all-legume feed like lucerne hay is a wholesome feed for a ruminant compared to grass hay.

Balanced feed is important

Some legumes, however, such as the calliandra tree, leucaena and some others contain some anti-nutritional factors (e.g. tannins) which inhibit protein digestion by ruminants and therefore cannot be fed as a sole diet. Mixing of such high-protein feeds with high-energy feeds (e.g. concentrate) would provide the animal with the required nutrients and enhance better utilization of such feeds by the ruminant and would further improve the performance of the animal. ■

Diatomite is a powerful insecticide

Today, I would like to write again about diatomite, as I consider this an incredibly valuable product in organic farming.

Diatomite is not available in most countries, and thus is quite expensive and difficult to access in the organic farming communities around the world. We in Kenya are very lucky to have a deposit being mined right here in Gilgil.

What is diatomite?

Often referred to as DE (diatomaceous earth), diatomite is the fossils of diatoms, single-celled algae. This algae obtains silica from volcanic ash which falls into the water in which the diatoms grow. With this silica, the diatoms produce non-crystalline silica skeletons, and over time as these lakes dry up, exposed diatomaceous earth sites remain.

How does it work?

Diatomite has many uses, all of which are non-toxic. In the organic farming world, its biggest use is insecticidal. As it works physically rather than chemically, there is no chance of insects' building up immunity, or resistance. This is an absolute bonus for we organic farmers! The microscopic fossils perforate all body parts of insects and at the same time absorb the body fluids. This results in total dehydration and finally death of the pests.

Diatomite can thus be used as a powerful insect killer and can be used both on crops and livestock. On livestock, it can be used for both external and internal parasites. When added to stored grain, diatomite kills weevils and protects the grain from further damage. Diatomite is non-toxic and therefore will not harm humans or animals that consume it. Grain should be washed before cooking, however. To treat stored grain, just add 500 g (1/2 kg) of diatomite to each sack of grain.



On crops, it can be dusted on for control of ants, flies, mites, slugs, snails, ticks, scorpions; almost any insects with a waxy coating will succumb to dehydration when the sharp dagger-like points scratch them. For dry application of diatomaceous earth, use a duster and cover the entire plant; apply to both top and bottom of the leaf. For young plants, as little as 1 kg per acre (2.5 kg/ha)

may be adequate. For larger plants, about 2 – 2.5 kg per acre (5 – 7.5 kg/ha) is probably sufficient. Diatomite will need to be reapplied after rain. It is best to apply it when there is dew or after a light rain.

Helpful for animals

For livestock, diatomite can be applied to poultry as a dusting powder, used indoor or outdoor around the barn or house, or any place that is dry. It can also be dusted on dogs, cattle, pigs, goats, etc. for control of ticks and fleas. Beddings of these animals should also be dusted.

Diatomite can be mixed with animal feed. Your livestock will also get the benefit of over 14 trace minerals that make up diatomaceous earth. The following are the amounts to use:

- Cows/Horses: 30 – 60 g per day
- Sheep/Goats/Hogs: 15 g per day
- Chickens or other poultry: you need to weigh the feed and mix in 2% of that weight with diatomaceous earth.

I tried diatomite, and it worked!

Peter Kamau

Preserving maize during storage is one of the most difficult tasks for any farmer. My own experience shows that most chemicals used for this purpose rarely protect maize against pests. I spent an average of Ksh 2000 worth of pesticides to protect my 200 bags of maize, but the weevils would persist, forcing me to repeat the same process every month.

In February 2002 a pest protection dealer advised me to try the fumigation tablets he was selling; the tablets proved to be slightly better than the other pesticides. I still discovered, however, that they can only protect the maize for about two months, and only if it is properly covered with airtight polythene sheeting to stop the fumes from escaping. Another fact I discovered is that the fumigation tablets could only kill the weevils which had not yet entered the maize grains. It is very difficult to protect the grain if it is already infested, and that is why farmers are advised to ensure they harvest early—before the weevils establish themselves in the maize.

Successful trials

In 2005, I learned about the use of diatomite powder in the preservation of maize during storage. Luckily I

had already bought six bags of the powder to protect my newly planted tea bushes against pests. I therefore decided to apply 1/2 kg (500 g) of the diatomite dust on each of two bags of shelled maize on a trial basis. On checking three months later, there were no weevils on the two bags on which I had applied diatomite.

As the rest of my maize was already showing traces of weevil damage, I decided to apply diatomite on the whole consignment. Since then I have been using diatomite dust on all my maize during storage with spectacular results.

Diatomite is mined by the Diatomite Industries at Kariandusi in Gilgil along the Nakuru-Naivasha road. It sells at Ksh 20 for 1 kg. Farmers can apply as little as 3 kg of the dust for every tonne of maize, wheat, barley or even millet with very good results. The Sales and Marketing Manager, Mr Roger Oluchiri, says diatomite is available in 20-kg bags to any farmer who is interested. Farmers can get in touch with him at the following address:

African Diatomite Industries, P.O.Box 32, Gilgil Tel. 050-4015209, Mobile 0722 277 120

Su Kahumbu answers your questions

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Letters to the editor

Requesting for your magazine

We wish to be included in the mailing list of *The Organic Farmer* newspaper. We need thirty copies for distribution to our extension staff and farmers. I have personally read the June 2007 edition and found it quite informative both to staff and farmers. In case our request is considered, we will ensure that the magazine reaches our clients who are the mixed farmers within Machakos district.

Aron M'Ringer, District Animal Production Officer, P.O. Box 1188, MACHAKOS, Tel. 0721566796 e-mail: aronringer@yahoo.com, Email: dlpomks@yahoo.com Telephone – 044-24247

TOF for our library

Congratulations for a job well done. I am an extension officer interested in organic farming. I would like to request for monthly copies of your magazine for the divisional library and to distribute to our farmers' groups. We will appreciate your response. Rebecca Yegon, District Agricultural Extension Officer, P.O. Box 33, Bungoma

Help us fight poverty

I happened to come across *The Organic Farmer* magazine and found a lot of information which, when put into practice, can help alleviate poverty among small-scale farmers across the country. Please put me on your mailing list. I am even ready to pay the postage charges. I do not want to lose the opportunity to read it as it will improve my life and that of other farmers. Isaiah Ogwalo, P.O.Box 162 Homa Bay, 40300

I don't want to miss it

I request to be included in your mailing list. I am a farmer by profession and I believe in natural systems of production, so I do not want to miss any of your issues.

William Chesongol Tiyoi, P.O.Box 2540, Kitale 30200

I discovered tithonia plant

I have finally got the valuable tithonia plant in my shamba which is now in a seedbed for multiplication (vegetative), though the divisional agriculture office did not assist me in this area I do hope they will be of help in future. I will be visiting them as need arises. I would be grateful to receive more literature on the plant. I am waiting for

Give us information on pineapples

You have featured chicken and mango production. I grow pineapples and would like to avoid the use of chemicals. If I have additional information on how to grow them organically, I would have an advantage.

The new Infonet service, which you intend to launch, will be an added advantage to farmers. We welcome it and hope it will provide us with relevant information to help us increase production. J.K. Kirui, P.O. Box 152, Litein, 20210



your positive reply to my request. Moses Gitau Maina, C/o Mawingu pri. School, P.O Box 245, Molo.

Article on rabbits was informative

I wish to request for 5 copies of *The Organic Farmer* magazine. We have school-based gardening and would



like to start rearing some animals such as rabbits. I found your July issue on rabbits very informative. I did not know they can provide very good meat. Looking forward to learning more from you. Bramwel S. Njeri, Golden Tots Preparatory School, P.O. Box 42 Matunda 30205.

Increase our knowledge

I am a regular reader of *The Organic Farmer* magazine and am a practising organic farmer in Tongaren division, Bungoma district. I would like to request you to consider sending me copies of this valuable magazine to supplement my knowledge and that of my students. I need 20 to 30 copies. Kenneth Wapakala, St Francis High School, P.O.Box 178 Misikhu

Send it to East Pokot

I request to be sent 6 copies of your monthly magazine, *The Organic Farmer* to East Pokot. East Pokot is a new district that has five divisions. We intend to give a copy to each of the five divisions. Caleb Ogola, District Agricultural Officer, East Pokot District P.O. Box 50, Chemolingot.

Does organic fertilizer require certification?

I'm a member of a community cooperative in Nakuru dealing with waste recycling issues. We are focusing on solids and water recycling which also includes organic waste. We have members who live in the peri-urban areas and deal in composting of farm waste. We are going commercial and want to produce organic fertilizer (dust and granulated form). Our product has been tested by Kephis, KEBS and other agricultural institution labs. It has been found free of any pathogens or heavy metals, but the biggest question is: Are there standards for organic fertilizer? Please let me know because we wish to fully comply. We are also keen on providing solutions to managing organic waste within our town, through recycling and composting. Please advise us on this. Our members are low-income earners and we are about 100 members. This initiative will provide employment and increased income to our members.

Please assist! Mildred. daymillie@yahoo.com

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

Infonet service is finally launched

Farmers in East Africa now have free access to information on sustainable agriculture following the launch of Infonet, an Internet-based platform that provides information on natural methods for prevention and control of pests and parasites on plants, animals and people.

The site was officially launched on October 9th by the Prime Minister of the European state of Liechtenstein, Mr. Otmar Hasler. The Infonet is sponsored by LED, the Development Service of Liechtenstein through the BioVision organisation and ICIPE. The website, www.infonet-biovision contains information on 40 major pests and diseases that affect more than 35 major crops, vegetables and fruits grown in East Africa. Farmers visiting the site can identify diseases and pests affecting their crops and at the same time get advice on biological methods of their control. Biovision CEO Mr. Andreas Schriber said that the new information service will greatly improve the exchange of information between research institutions and farmers. He added that unlike other internet sites with difficult scien-



The Prime Minister of the State of Liechtenstein Mr. Otmar Hasler (right), addresses participants during the Infonet launch.

tific language and terms, farmers will find the new site easy to access, understand and use. The Infonet project leader, Ms Monique Hunziker said the website will be updated daily to ensure farmers have access to the latest information on such areas as soil and water conservation, processing of agricultural produce, organic farming and plant nutrition. In addition, the website contains information that is relevant to problems specific to the region. Farmers with no access to Internet services will initially be able to use an offline version that will be made available on Compact Discs (CDs) or USB flash sticks by May 2008. ■

High yields with new cassava varieties

The introduction of new cassava varieties in western Kenya has significantly contributed to food security and reduction of poverty in the region.

Cassava is an important staple food in western Kenya. The region produces and consumes 60% of the national cassava production. In 1994/95, a most severe form of cassava mosaic disease attacked cassava crops and devastated all traditional varieties in Teso and Busia districts. The disease rapidly spread to neighbouring districts and by 1997, it had become pandemic, such that farmers abandoned growing cassava altogether. (A pandemic is a disease that has spread over a whole region or country.) People in the region suffered serious food shortages and evident poverty as a result.

New clones selected

In 1997, the Kenya Agricultural Research Institute (KARI) collaborated with the International Institute of Tropical Agriculture (IITA) through the East Africa Root Crops Research

Network (EARRNET) to mitigate the pandemic. Strategies to tackle the pandemic included introduction and evaluation of germplasm (varieties) and multiplication and distribution of cassava mosaic-resistant planting materials to farmers in western Kenya. In the past six years, over 1400 cassava clones have been introduced and evaluated for the disease and other important agronomic characteristics. Fifteen clones have been selected and rapidly bulked for planting materials and distributed to farming communities in western Kenya.



Market Place



Organic produce: The Organic Shop would like to buy the following organic farm produce from certified organic growers: All types of fruits such as raspberries, sugar, corn oil, sunflower oil, garlic, strawberries, green peppers, eggplant, organic tea and coffee, grains such as wheat, barley and oats, beef, lamb, duck. Farmers can contact Zak Tel. 0722 572717 or Su Kahumbu Tel. 0721 100001, email: info@organic.co.ke

Guinea pigs: We would like to buy Guinea pigs from any farmer rearing them. Contact us on Tel. 0729 302 858.

Dairy cow wanted: I am interested in buying a high yielding dairy cow. Any farmer with a ready cow for sale in my area can contact me. Tel 0729 553 517 Endebess, Kitale

Kenbro chicken: I need to buy 100 day-old Kenbro chicks. Any hatcheries selling them should contact me. Tel. 0722 257 796

Pumpkins for sale: I am an organic farmer in Kericho. I specialise in pumpkins (sugar pie). I have 3 tonnes in stock for sale. Contact me on Tel. 0725 396 961.

Over 302,000 households in the region are growing the improved healthy cassava varieties, which yield six to eight times more than the traditional varieties. The preliminary results of the impact study shows that the overall adoption rate in the five districts surveyed in western Kenya is 30% in terms of the proportion of farmers growing the improved varieties. The variety Migyera (TMS 30572) is the most commonly grown (by 25.6% of households) and therefore the variety of interest among improved varieties.

Higher yields

The area covered by the new varieties is approximately 21,000 ha, which is a recovery of 38% of the area in western Kenya that was under cassava production prior to the pandemic. In some districts such as Teso and Busia, where adoption of the technology is high, the recovery area under cultivation with cassava mosaic disease-resistant varieties is over 80%, while in terms of production restoration, it is over 100% because of the higher yields of the improved varieties. (TOF) ■