

# The Organic Farmer

The magazine for sustainable agriculture in Kenya



Nr. 41 October 2008

## New tricks by feed makers

*Feed manufacturers are now trying to cheat farmers with faked labels; farmers beware*

In April this year, *The Organic Farmer* highlighted the problem of poor quality feeds being made by some of the local feed manufacturers. Many farmers wanted us to name the companies involved. But as we explained we could not do so because we risked having legal action being taken against us. We however advised farmers to buy their feeds from established companies with a reputation for maintaining high standards in feed quality. Following pressure from the farmers, we mentioned Unga and Sigma Feed companies as some of those selling quality feeds. Although we thought that we had helped the farmers, we have since established that the companies with low quality feeds have devised new ways in order to keep their products in the market.

One of the many tricks they are using is to use the same packaging and brand names of Unga and Sigma Feeds in order to sell their feeds. According to Robert Muriithi, the sales and marketing manager at Sigma feeds, the problem is so widespread in some regions that the company has been



### Mineral supplements

There are some plants with high mineral content for instance Amaranthus, comfrey or spider weed (pictured). Farmers can easily use them for the required home-made mineral supplements. See page 5

forced to stop distribution in these parts of the country. He advises farmers to check the packaging bags carefully to ensure they are buying genuine feeds from the company. "They can for example check the way our feed packages are sealed to be able to distinguish the difference with the fake products," Muriithi says.

As we explained in our July issue, farmers should buy their animal feeds from reputable stockists. Established stockists get their feeds directly from these companies and are less likely to sell poor feeds. (TOF)

**TOFRadio**   
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## Growing interest in eucalyptus trees

Kenyan forests are under pressure as deforestation has been accelerated. Wood for firewood and for construction is becoming rare and expensive. This explains to some extent the increasing interest in growing the eucalyptus tree. Notably, 70 percent of the new tree plantations are eucalyptus. In terms of efficiency, eucalyptus is a good choice since it grows fast. The concentration on eucalyptus, on the other hand, impoverishes the biodiversity in our forests. The biggest problems still linger: the inefficient consumption of energy, especially firewood and charcoal, and the lack of a long-term policy on energy. Pages 2 & 3



## Dear farmers,

In the last few months, wananchi have had to bear the burden of rising fuel prices. Families are spending a good part of their income on the purchase of kerosene, gas, charcoal and firewood. Recently electricity charges went up! Evidently, even if one has to pay more for firewood than ever before, it still remains cheaper than other sources of energy. Consequently the pressure on our forests is growing. We can see it whenever we are traveling by the countryside: Along our major highways and roads, mountains of charcoal bags are stacked by the roadside, ready for the market, even in areas with a fragile environment such as Baringo, Laikipia or even Northern Kenya. We use more than two million tonnes of charcoal a year – and the figure is on the rise. One can then imagine the pressure and threat on our remaining forest cover!

We are slowly destroying our own future. In the last two decades, Kenya has lost nearly 90% of its forest cover, as we have mentioned on page 3. We know that forests are water reservoirs. Many parts of the country are facing water shortages because all the forests that helped conserve water have been destroyed. Mt Kenya and Aberdares are the best examples of these. Now the Mau forest is threatened by human settlement.

Reasons for forest depletion are well known. They are rapid population growth rate, and lack of a long term, clear and sustainable energy policy on the part of the government.

There are technologies developed to enable us use energy much more efficiently. For the last two decades, the government has not undertaken a single afforestation programme in the country.

Unless urgent action is taken, our remaining forests will disappear. We cannot wait for the government or the NGO's to save us. We, the wananchi have to act. Our country has vast chunks of idle land that could be put to good use by planting trees; moreover, agroforestry is part and parcel of organic farming. Normally, in an emergency everybody has to act pretty fast; degradation of our forests is an emergency!

# Eucalyptus: the tree of choice

*Despite complaints about it, the eucalyptus tree can meet the ever increasing demand for wood.*

**Peter Kamau**

When it was first introduced into the country, the now popular eucalyptus tree was then used in the fueling of steam engines belonging to the Kenya-Uganda railway. Nobody at the time ever imagined that the tree would later on become a major source of firewood, building material, fencing posts as well as providing poles for power transmission and telephone lines.

Destruction of our existing forests due to encroachment by the expanding population has led to an acute shortage of trees for both domestic and industrial use. Reports indicate that Kenya faces a wood deficit of seven million cubic metres. The country boasts of huge chunks of land with potential for tree production but this is underutilised. Trees need a long time to mature

and therefore any tree that takes a shorter period and meets the increasing demand would naturally attract the interest of farmers and even the timber industry; eucalyptus fits the bill.

Eucalyptus is the tree of choice for many farmers who want to diversify their farming activities and earn an extra income from agro-forestry. Thousands of eucalyptus trees have been planted by farmers. In the last planting season alone, more than 70 percent of the trees planted in the country were eucalyptus. One of the reasons why farmers prefer the tree is that it matures fast and does not require a lot of care in terms of management.

However, there are some fears about the negative effects of the tree. One of the objections against eucalyptus is that it takes up a lot of water, depleting water sources and depriving other plants of essential nutrients. Some people demand that the eucalyptus trees should only be grown in swampy areas where they can help to drain water.

## More water, more wood

Jason Kariuki, a senior researcher at the Kenya Forestry Research Institute (KEFRI) says some of the fears about the eucalyptus tree are unfounded. Studies show that the eucalyptus hybrid has the highest productivity per litre of water consumed (2.06 g) compared to most trees planted by farmers. This is a clear indication that the trees are more efficient in water utilisation. Eucalyptus spp. is the most efficient user of water for maximum biomass production in arid areas. More to that, eucalyptus has the added advantage of being a good coppicing tree, ensuring 4 to 5 cuttings without replanting.

Besides, the tree has the highest carbon conversion rate among the local tree species, therefore reducing carbon in the atmosphere. Farmers with large eucalyptus plantations may in future benefit from carbon credit payments like those in other developing countries (Tanzania for instance).

By planting eucalyptus, farmers could help increase the forest cover that currently stands at 3.4 % of the total Kenyan land area. However, Kariuki advises farmers planning to set up eucalyptus plantations to isolate a portion of their land for this purpose. They should be planted away from buildings, boundaries or crops to prevent its vigorous roots from interfering with them. No other tree can grow in an eucalyptus plantation.

## Choose the right varieties

There are three improved varieties of the eucalyptus tree that are now common in Kenya; eucalyptus grandis, eucalyptus camaldulensis and eucalyptus saligna. At the moment more than 40 clones of the eucalyptus tree are being



developed at the Kenya Forestry Research Institute for planting in different agro-ecological zones in the country. Before growing eucalyptus trees, farmers must know the growth characteristics of each variety, straightness and suitability. Eucalyptus grandis and eucalyptus saligna grow well in high potential areas such as Muguga, Londiani, Turbo, Nyeri, Kitale, Eldoret, Nandi hills; eucalyptus camaldulensis is good for low potential areas, e.g Makueni, Kibwezi, Mweiga and Isiolo. The eucalyptus seedlings should be bought only from certified seed producers or the forestry department.

continued on page 3

*The Organic Farmer* is an independent magazine for the Kenyan 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 of charge 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](http://www.biovision.ch)

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# Charcoal is finishing our remaining forests

*Since our forests are becoming smaller and smaller, we should seriously think of other sources of energy.*

**John Cheburet**

Like most african countries, Kenya is faced with a serious energy problem. Increasing oil prices have made it difficult for the poor to afford oil products such as kerosene for cooking and lighting. What this means is that more and more people will continue to rely on firewood and charcoal for their energy requirements. This, in turn, will continue to put pressure on our diminishing forest resources. Already the environment has paid the price: Our forest cover has been reduced to less than 2 percent, way below the 10 percent recommended by the United Nations.

Every year Kenyans consume between 2 and 2.5 million tonnes of charcoal. According to Stephen Mutimba, the managing director of Energy for Sustainable Development Africa (ESDA),



charcoal caters for the huge demand for energy in Kenya's urban areas; it is used in 4 out of every 5 households, while almost all rural households use either charcoal or firewood. Charcoal is one of the leading causes of deforestation in Kenya, together with the clearing of forests for cultivation and illegal logging activities.

### Mass wastage

The charcoal makers use traditional earth kilns that waste close to 90 percent of the would be charcoal produced; the

traditional earth kilns need 1 hectare of woodland to produce 10 tonnes of charcoal compared to a half hectare in efficient kilns.

### Heating the air

What makes the situation even worse is that the biggest part of this high valuable energy is wasted: On a charcoal jiko, only one third of the energy is actually used, the rest disappears into the air; in the traditional metal stoves, 80 percent of the heat vanishes.

The Kenyan Government does not have a policy on sustainable charcoal production or energy in general. The Forest Bill of the year 2000 states: "Forests are the main source of domestic fuelwood for the Kenyan people." But this reliance on forests has to change. There is need for developing energy saving ovens such as are used in cold Europe. Sustainable energy sources, for example wind, solar and of course biogas should be subsidised to make them affordable for wananchi.

## >>> from page 2: Eucalyptus

ment. William Mucheke, a senior tree breeder at KEFRI says farmers should seek advice from the forestry department before buying any eucalyptus seedlings.

### Planting guidelines

**Site selection:** Select a portion of your land that is not very productive e.g. a swampy ground or far away from where you grow maize, beans or vegetables.

**Land preparation:** Prepare enough compost three months before planting the trees, prepare seed bed using sand instead of the soil. The seedbed should be 1m wide and the desired length. Broadcast the seeds and constantly remove any weeds from the young eucalyptus seedlings. Transfer the seedlings into 4 cm by 6 cm polythene bags in a second seedbed.

**Planting:** Transfer the seedlings into the selected portion of land after 3 or 4 months.

**Weeding:** Young eucalyptus trees are very vulnerable to weeds especially grasses, which cause diseases such as Amillaria and root rot. These diseases can wipe out a whole plantation if weeds are not controlled. It is recommended that farmers do spot weeding

that involves removing any weeds growing around the young eucalyptus tree.

**Harvesting:** Harvesting of the eucalyptus tree can be done after 3 - 5 years, but they can be left to grow to the desired size depending on their intended use. Farmers who want to use the trees for poles can cut them when they attain 6 to 7 years. Trees for use in power lines should be allowed between 8 and 10 years. After cutting, the tree takes a short time to grow again. Farmers are advised to prune

the tree when the tree stump starts sprouting; they can leave two stems to allow the tree to grow again. This means (in theory) that if the farmer harvested 1,000 trees during the first harvest, they can get up to 2000 trees in the next harvest.

**Diseases and pests:** Although resistant to most diseases, a new pest, the bluegum chalcid has recently invaded eucalyptus plantations in most parts of the country. Scientists are working on various methods to control the pest biologically.

## Agroforestry improves biodiversity

No doubt, the eucalyptus is a very fast growing tree. When wood production is the major objective of the landowner, he will thus choose eucalyptus.

On the other hand, planting only eucalyptus trees means impoverishment of our nature. We should not forget that planting different varieties of trees in our farms



has many benefits to the farmer. One of them is that various trees attract different other living organisms such as beneficial insects and bees that provide honey and help in pollination. It also provides a habitat for predator birds. And by the way, we should not forget the beauty of big indigenous trees on the landscape! ■



## Improve your soil with mustard green manure

*Mustard as a cover crop, can control pests and diseases while improving soil texture and fertility.*

### The Organic Farmer

Many times, this magazine has advised farmers on the value of planting green manures or cover crops in order to improve the quality of our soils and to increase their productivity. At the same time, green manures provide fodder for animals. Some of the well known green manure crops are lablab, mucuna, desmodium and purple vetch. In this issue, we introduce to you another very important cover crop, the mustard. For centuries, mustard has been used by farmers across the world to improve their soils and to replenish their fertility and productivity.

The application of mustard as green manure can increase the physical, chemical and biological properties of the soil. Mustard controls pests such as nematodes, a fungal disease such as blight, a stubborn weed, and at the same time it improves the texture of the soil.

### **Mustard protects the soil ...**

Mustard supports farmers who want to improve the physical structure of their soil such as infiltration and water holding capacity. It can also help to ensure that more air goes into the soil to increase the population of important soil micro-organisms such as mycorrhizae bacteria that promote plant health. Like any other cover crop, mustard can control wind and water erosion and therefore protect the soil.

### **... and fixes nitrogen**

Apart from the physical properties of the soil, mustard can also improve the soil by correcting its chemical properties. It fixes nitrogen and reduces leaching of essential nutrients and weath-

ering of soil mineral components. Mustard speeds up these processes by activation of soil microorganisms. These microorganisms support the release of essential nutrients for plants while suppressing the disease-causing agents in the soil. The result is that the soil's biology is changed in a way that makes it difficult for the fungi, bacteria and nematodes to survive.

### **Additional benefits.**

Crop rotation, as we know, can reduce pest problems by altering the environmental conditions under which particular pests thrive. When these conditions change, the pest cannot survive and therefore ceases to be a problem to your crops. The application of mustard reduces the influence of some of the pests that pose a problem to the crops. Why? Like other crops in the brassica family, such as cabbage, broccoli or rapeseed, mustard produces, in its roots and shoots, a compound called glucosinolates. It also produces an enzyme called myrosinase. When the mustard is chopped and incorporated into the soil, the glucosinolates and myrosinase combine, in the process producing a mixture of other substances. Some of them are toxic to soil fungi, nematodes and even weed seeds.

These substances help to fumigate the soil in a process called bio-fumigation. Farmers are advised to chop the mustard when it is still green and working it immediately into the soil. This enhances the effects of biofumigation especially when the mustard is cut while still young, preferably when it is flowering or just before it sets seed.

### **It controls diseases**

Some of the diseases that mustard green manure can help control are outlined here:

a) Verticillium wilt, silver scurf and

sclerotinia in potato production.

b) Reduction in nematode population which cause root lesion, hapla and chit wood in potato production.

c) Suppress root rot (pythium, fusarium, and rhizoctonia) and sclerotonia in bean production.

d) Suppresses pink rot and sclerotonia in onion production.

e) It reduces disease pressure from aphamycetes, pythium, rhizoctonia, fusarium and sclerotinia in pea production.

f) It controls cavity spot, root rot, fusarium and sclerotinia in carrot production.

g) It is highly effective on most diseases that affect wheat.

### **How to plant mustard**

Mustard should be planted at the rate of 10-15 kg per hectare at a depth of 10-15 mm in soil that has adequate moisture. The soil needs compacting so that the seed comes into contact with the soil for good germination. Soil moisture should be maintained to ensure adequate plant growth and good weed competition. Well prepared compost can provide the crop's nitrogen requirements. Sulphur can be added if the soil is deficient because mustard requires 5:1 nitrogen to sulphur ratio. Farmers without machinery can plant mustard by simply broadcasting it over the prepared land. For good germination there must be good seed to soil contact.

For good results, farmers are advised to wait for 14 days after chopping and incorporating mustard seed into the soil before planting the desired crop such as beans, potatoes or even wheat.

*Interested in buying mustard seed:*  
HYGROTECH (E.A) Ltd  
P.O. Box 41446, 00100, Nairobi,  
Tel 066 73 567 18/9, 0733 896 092.

# Mineral salts are essential for animals

There are alternative sources of essential minerals that are not found in feed concentrates and fodder.

**Michael Waweru**

Salts provide essential minerals such as calcium and phosphorus. Both of these are vital for livestock. They are needed in the body for bone and eggshell formation, for muscle contractions that

result in movements, hormone and enzyme, etc. When animals do not get salts, the following conditions are observed:

- Reduced growth.
- Rickets or bent bones.
- Osteomalacia (soft bones that fracture easily).
- Reduced egg production with eggshells that break easily.

- In cattle that are high milk producers, milk fever, difficult birth and retained placenta after births are observed.

When no salts are given, animals develop strange dietary habits such as feeding on clothes, rags, bones, soap etc. This is usually a sign that the body is lacking minerals but the habit stops when minerals are provided. Salt should not be put in drinking water as in this case animals shall be forced to take salt when they drink water, regardless of whether they need it or not. Ordinary table salt (sodium chloride) used in the kitchen is not appropriate for livestock, as it does not have the types of minerals that are much

continued on page 6

## Simple and basic feeding tips

To avoid spoilage: Supply only fresh or processed feeds to the animals

To meet nutritional needs: Offer a wide variety of feed daily

To increase production: Provide forage and water at all times

To encourage intake: Ensure easy access to feed and clean water always

To prevent disease: Limit intake of concentrates

To provide minerals and vitamins: Supplement the animal diet regularly



Amaranthus



Spider weed



Cong'e



Stinging nettle



Black night shade



Comfrey

## Make your own mineral supplement for livestock

Farmers can do much more to provide their cattle and other farm animals with important and necessary mineral supplements. Some plants with high mineral content can easily be used for home-made mineral supplements:

**Amaranthus** and **comfrey** are good sources of calcium for poultry and pigs.

**Spider weed** (*Gynadropsis Gynandra*) is a good source of calcium for lactating animals. The plant can be fed to increase milk production in cows. It can also be mixed with other fodder and given to the animals.

**Pumpkins** (and the leaves of other plants of *Curcubitae* family) are very rich in phosphorus, which is essential for boosting immune systems in all animals. Pumpkin leaves can be fed green to the young animals; they can also be cooked and mashed for young piglets.

**Amaranthus** (Pigweed) is very rich in calcium and carbohydrates; it can be fed to the animals; green or as flour. It

is a very good source of carbohydrates and calcium for fattening animals and good masculinity for draught power.

**Oxygonium Sinnathuum** (Kikuyu: *Cong'e*) contains calcium which is essential for egg formation. Leaves of this plant can be hang in the house for the birds to eat; apart from providing them with nutrients they are good for exercise as the chicken jump up and down to peck on them.

**Stinging Nettle** (*Urtica Dioica*) is very rich in calcium and iron. In case of milk fever it can be fed as powder (crushed after drying) or as concentrate by boiling the whole plant. Stinging nettle tea or powder is a good source of iron for poultry and piglets.

**Black night shade** (*Solanum nigrum*) is very rich in calcium and can be fed to all types of animals to reduce chances of milk fever after giving birth. This is very common in cows.

### Dry and feed them!

All these plants can also be dried in the sun, ground to a smooth powder

and add one tablespoon full of salt to encourage intake. The powder should be availed throughout in a mineral box. It is also important that the farmers take care when sourcing for these plants to avoid contamination, especially in areas where lots of herbicides are used. If possible, the farmers can grow their own herbs as opposed to harvesting them by the roadside or in other peoples' farms.

### Variety of fodder

It is important that farmers use different types of plants mixed together, since different plants have different types and quantities of minerals. It is also advisable to use young and tender plants just before flowering; at this stage they are known to contain a lot of nutrients and minerals.

Mineral deficiencies are not common in free-range animals. Thus a farmer should provide the widest variety of fodder in the diet of farm animals to create a balance and reduce the chances of mineral deficiencies.



## farmers forum

>>> from page 5: Mineral salts

needed by animals. Eggshells, when boiled to kill germs, then ground, are a good source of calcium for piglets.

### Tread carefully on licks

Salt blocks are important in supporting the home made mineral supplements, especially in the arid areas where some of these plants are not available (see box). It is important to note that many of the salt licks available in the market are natural in the sense that very few artificial ingredients are added. Also it



is important to appreciate that in every community in Kenya there are natural mineral lick areas where farmers take their animals to lick the minerals. In Makueni district for example natural salt licks, along dry river beds and areas with sedimentary rocks, are a common occurrence. ■

### Salt blocks are often of poor quality

Be careful with commercial salt blocks. Avoid those ones with hormones as they might compromise organic animal production. In the market one can get a wide range of salt blocks from different companies. According to Dr. James Kariuki, the KARI National Animal Husbandry Centre Director Naivasha, more than 80 percent of the mineral licks in the market are of poor quality. He says that the manufacturers of the mineral blocks do not formulate the minerals in the right quotients. Cows are especially very sensitive to calcium and phosphorus if the two minerals are not given in the right balance. Different parts of the country have different mineral deficiencies. (TOF)

## Where can we buy an oil press?

In the July-issue you had a nice article on *Jatropha* and other plants such as Sunflower, soya, peanuts, sesame etc, whose seeds could be used by farmers to produce oil for their own consumption. Unfortunately you did not mention the most important thing: where to get an oil-press at an affordable price. If a group of farmers would jointly buy an oil-press, they could save a lot of money in producing their own cooking oil instead of buying it from the shops. If you have some ideas where we could get an oil-press cheaply, please let us know, we will appreciate.

Henry Kamau, Athi River

Dear Henry,

Your concern is genuine. The problem is that it is not easy to get small oil-presses. This is the same with small cookers for cooking with the oil out of *Jatropha*. The



German university of Hohenheim is developing a pressure oven; we shall inform you in the coming issues about this oven. We really regret the lack of small-scale technology, which would allow small-scale farmers to improve their livelihood through appropriate technology.

## Magazine is

### full of knowledge

I would like to be receiving copies or even photocopies of the monthly edition of *The Organic Farmer* magazine at my own cost in both postage and photocopies. The magazine is full of knowledge for some of us who want to take agriculture a notch higher. Besides there is need for new and sustainable agricultural practices, which the magazine addresses, not to mention the agri-business angle of farming that I find most encouraging in the few editions I have received. Kindly advise me on how I can realize this. Currently we are involved in horticultural farming and are in the process of registering a community based organization whose agenda is to emancipate the rural folks from poverty through sustainable and modern farming methods. Thank you. Joseph Douglas Adera, P.O Box 3505 Kisumu

*Thanks to the support of the Swiss foundation BioVision, our magazine is available free of charge to all farmers. However, those who need to get past issues are requested to send us stamps worth Ksh 350 in an envelope. These stamps are like money; we use them to send letters and other materials to farmers.*

## It's time to go organic

I have come across your magazine which I found very interesting and informative. The cost of farm inputs and most of their side effects, both on us and our environment is devastating. In my area, no one practices organic farming and I think it is time we started it.

Keter DK, FADC Chairman, P.O Box 29, Sotik

## More please on dairy cows

After reading your magazine, I can confidently say that I am now empowered by the information it contained. I am a small-scale farmer with 1 hectare of land. In my farm I have six dairy cattle which give up to 20 litres of milk everyday. Thank you. Benson Karanja Matoro, P.O Box 560, Olkalou

## Useful information

This is to acknowledge with thanks the regular receipt of five copies of *The Organic Farmer* magazine. The information contained is very useful to staff and farmers.

Wafula Mutoro, DAO, P.O Box 104, Kapsowar

Questions? Ideas?

Complaints?

SMS us, and we shall get back to you.

0721 541 590 / 0738 390 715



# Apple vinegar against warts

Is apple cider vinegar a single product or a concoction in warts treatment?

Imboba, Naro Moru. 0721 621 764

No, you can use apple cider vinegar just like it is, without any other ingredients; it is an inexpensive, homeopathic treatment for the removal of warts. There are two ways to use apple cider vinegar:

- You mix warm water with a cup of vinegar and soak the affected area for 20 minutes a day until the wart disappears. This method takes longer than the second method, but it is not apt to cause as much irritation to the surrounding skin.

- A quicker way is to soak a piece of cotton in the vinegar, place it on the wart, and secure it in place with a band-aid and then wear it over night. You should do this each night until the wart and its core is gone. Your wart should be covered with cotton that is soaked with apple cider vinegar at all times. The easiest way for treatment is during the night while you are sleeping.

You can buy apple cider vinegar in the shop, or you can make it yourself. What you need to make apple vinegar: in a wide mouth glass container, cheesecloth, ripe apples and yeast (for brewing wine or beer, not baker's yeast).

## How to produce it:

1. Press clean, washed, ripe apples. Strain to make a clean juice. Pour it into

a sterilized container and cover with cheesecloth. Add yeast and leave the liquid to ferment.

2. Keep the liquid between 15°C and 25°C during the fermentation process. Stir the liquid daily to introduce adequate amounts of oxygen, which is necessary for fermentation.

3. After three to four weeks, the bacteria will have converted most of the alcohol, and the mixture will begin to smell like vinegar. When the vinegar is ready, there should be no more flavor of alcohol.

4. Strain the liquid through a cloth or filter several times to remove the cloudy substance. Otherwise the fermentation process will continue and eventually spoil your vinegar.

Your vinegar is now ready for use. Keep it in a capped bottle in a cool place. Good luck!

*Do you have any experinece with this wart-removing-method? Please write to us and share your knowledge with your fellow farmers! J.C*



## Diverse methods of organic topdressing

We are a home based support group in Bungoma. We would like to know which organic topdressing fertilizer can be used on kitchen crops like carrots. (0735 273 976)

When using organic fertilizers as top dressing you should remember that, unlike the salts used in chemical fertilizers, the organic fertilizers require more than just water to dissipate. They need the help of micro organisms, which in turn demand optimum conditions to survive. It is therefore logical that if you are irrigating with over head irrigation, you can top dress with compost and perhaps mulch the compost to protect the micro organisms from the drying effects of sunlight. Alternatively, it may be better to use bio-liquid feeds as a spray on a weekly or fortnightly

basis depending on your crops. Crops that are heavy feeders like broccoli and cauliflower require more feeding than lettuce, carrots etc.

There are many different liquid feeds that can be made. Fermented Plant Extracts (FPE) can be made using a variety of plants that are decomposed in water for 7 days to release their nutrients. Compost tea can be made by submerging a bag of well matured compost into a drum of water for a day and using the liquid collected to feed the plants.

Vermiculture is another perfect way of using nature; in this case earthworms are used to produce liquid worm juice which is a great organic fertilizer.

**Su Kahumbu**



## Why are my passion fruits dying?

I am a farmer from Gatundu South and I grow passion fruits. Unfortunately my crop has started dying; from the tips downwards. Is there any remedy for this misfortune or should I just abandon this project? (Tel 0720 443 248).

Passion fruit production is a profitable farming activity, but farmers are finding a host of problems when it comes to disease control. Passion fruits are prone to a number of fungal diseases and pests. Unless a farmer manages to control them, he/she may find growing these fruits quite a challenge.

One of the ways of avoiding these diseases is to ensure that your passion fruit crop is not planted on the same plot of land for more than three years; this is to avoid the build up of soil-borne diseases. You should practise strict crop rotation. We may not be sure which of the above diseases your crop is suffering from but we have downloaded all details about each of the possible diseases including pictures from the Infonet/Biovision website at [www.infonet-biovision.org](http://www.infonet-biovision.org). We will send these details to you to enable you identify the particular diseases and take the necessary remedial measures. We advise other farmers with access to the internet to do the same. Alternatively, and more easily, they can order the Infonet-BioVision CD (which is now available) to get any information they need on plant health (*To order the CD, see page 8*). **TOF**

**NOTE:** Farmers send us questions that we find extremely hard to understand. We kindly request you to explain your problems in a clear way and to the point. It is easier for us to give the relevant answers if the questions are clear.

## tips and bits

from farmers for farmers

### Adapt to changing weather

Every farmer in the country must have felt the effect of climate change. We had been used to a very predictable rainfall pattern. The long rains would start in mid-March and end in August-September while the short rains would take us through the September- December period. Now all this has changed with rains starting sometimes late in April and disappearing in June a time when the crops are in dire need of moisture. Meteorological Department forecasts are no longer reliable because only a few of their predictions come to pass.

Do we then give up on unpredictable weather? No, farming gives us an income, and the country relies on us for food. Instead we should adapt to the changing weather patterns. One strategy that farmers can

use is to divide their land into different portions says three portions. What they can do then, is to plant one portion at the beginning of the rainy season say mid-March, another portion can then be planted in May and the third in July or even September. This way the farmer will have reduced the risk of having to lose the whole crop if they planted once. This strategy is already being used by some farmers and it has considerably reduced their losses.



### Order Infonet-Biovision CD

Do you have a problem with pests in your shamba? Would you like to know how to fight spidermite? Then you should order the Infonet-Biovision CD which we have talked much about. The CD contains all the information that a farmer may need. However, information on human and animal health requires much more work, it will be included when the final CD is ready early next year. We are offering the CD for Ksh 200. This amount caters for both the package and the postage charges. Farmers who buy the first edition of the CD will get the final version free of charge. Using the CD is simple, all you need is a computer, when you



insert it into the computer, you will read it like a book.

Farmers interested in buying the CD only need to send us airtime worth Ksh 200 through either our numbers 0721 514 590 or 0738 390 715). After sending this airtime, please send us an SMS detailing your full name and correct address. We shall send you the CD by registered mail.

Issue 4, October 2008

# The Farmers Classified

To advertiser contact: James Wathuge 020 356 4106, 0720 419 584, 0733 893 300, email: [thefarmersclassified@organickenya.com](mailto:thefarmersclassified@organickenya.com)

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- EM increases the humus content of the soil promoting biodiversity, changing disease causing soils to disease suppressive soils capable for sustaining high quality food production.
- Developed in the 1970s at the University of Ryukus, Okinawa, Japan by Dr. Teruo Higa, the technology is rapidly expanding throughout the world.

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