Dear farmers,

When I was young, there was one thing I learned from my late grandfather. Each afternoon, he would walk around the family shamba and carefully examine every plant to see if there was any problem. If he noticed any sign of disease or pests, he would take action immediately to prevent it from spreading and damaging the rest of the crop.

Of course he had one big advantage. He knew most of the insect pests and diseases that affect various crops in our home region. In other words, he was well equipped with the appropriate knowledge that every farmer needs in managing their shamba. Many farmers may not possess the same level of knowledge, but there are various measures they can take to ensure their crops are safe from pests and diseases.

Careful observation of the crops in the farm on a regular basis is a very important exercise in modern farming. There are many benefits farmers can get from this simple activity. One of these is that diseases and pests are detected early and remedial measures can be immediately taken to prevent them.

The practice in Kenya, and indeed in many African countries, is that farmers do not pay much attention to crops once they have been planted and weeded. They... and with it, their investment in its production. The use of pesticides and chemicals is an added cost to the farmer. Just in the same way we take care of our children, livestock and our other valuable possessions, plants need special care for proper growth. If a plant lacks a nutrient, it shows clear signs on its leaves and stems. The most needed nutrients are nitrogen, phosphorus, potassium and magnesium, but also boron and iron are of valuable benefit to the plant.

Organic agriculture’s approach to fertilization is to feed the soil and let the soil feed the plant. The soil is provided with minerals through decomposition of plant residues and animal remains, weathering of soil minerals, through manures, composts, biosolids (sewage sludge), other organic amendments. Other food processing byproducts and ground rock products including lime, rock phosphate and greensand can be added.

Our article about mineral deficiencies on pages 4 and 5 gives advice on how to fight the lack of minerals in maize, beans and cabbage.

Language dilemma 2

Why it is important to use English in The Organic Farmer.

Biological pest control 3

Results show that wasp can control the diamondback moth.

Fodder trees 8

How to control fodder tree diseases.

Healthy cows give more milk

Integrating animal husbandry into crop producing farms is one of the principles of organic farming. Animal husbandry plays an important role in the recycling of nutrients. In organic farming, animal husbandry is different from both extensive animal husbandry, which is often environmentally damaging (for instance overgrazing of common lands), and from intensive animal husbandry, which keeps animals under ethically unacceptable conditions. According to the standards of organic farming, zero grazing is only allowed if livestock have sufficient free movement and opportunity to express normal patterns of behaviour, sufficient access to clean drinking water, and clean sheds of sufficient size and with adequate light and fresh air. Landless animal husbandry is not permitted in organic farming.

Page 6: Which cow breed is best?

Plants tell you what they need

Attentive farmers can detect mineral deficiencies, if they watch carefully the leaves of their plants.

The Organic Farmer

Plants require three factors for growth and reproduction: light, water and nutrients (minerals). They obtain the nutrients they need through root uptake from the soil in which they grow. Since nutrients are essential for healthy plant growth and an optimal yield, it is important to maintain a high fertility of the soil, which includes a balanced nutrient supply. If a plant lacks a nutrient, it shows clear signs on its leaves and stems. The most needed nutrients are nitrogen, phosphorus, potassium and magnesium, but also boron and iron are of valuable benefit to the plant.

Organic agriculture’s approach to fertilization is to feed the soil and let the soil feed the plant. The soil is provided with minerals through decomposition of plant residues and animal remains, weathering of soil minerals, through manures, composts, biosolids (sewage sludge), other organic amendments. Other food processing byproducts and ground rock products including lime, rock phosphate and greensand can be added.

Our article about mineral deficiencies on pages 4 and 5 gives advice on how to fight the lack of minerals in maize, beans and cabbage.

Integrating animal husbandry into crop producing farms is one of the principles of organic farming. Animal husbandry plays an important role in the recycling of nutrients. In organic farming, animal husbandry is different from both extensive animal husbandry, which is often environmentally damaging (for instance overgrazing of common lands), and from intensive animal husbandry, which keeps animals under ethically unacceptable conditions. According to the standards of organic farming, zero grazing is only allowed if livestock have sufficient free movement and opportunity to express normal patterns of behaviour, sufficient access to clean drinking water, and clean sheds of sufficient size and with adequate light and fresh air. Landless animal husbandry is not permitted in organic farming.

Page 6: Which cow breed is best?

Plants tell you what they need

Attentive farmers can detect mineral deficiencies, if they watch carefully the leaves of their plants.

The Organic Farmer

Plants require three factors for growth and reproduction: light, water and nutrients (minerals). They obtain the nutrients they need through root uptake from the soil in which they grow. Since nutrients are essential for healthy plant growth and an optimal yield, it is important to maintain a high fertility of the soil, which includes a balanced nutrient supply. If a plant lacks a nutrient, it shows clear signs on its leaves and stems. The most needed nutrients are nitrogen, phosphorus, potassium and magnesium, but also boron and iron are of valuable benefit to the plant.

Organic agriculture’s approach to fertilization is to feed the soil and let the soil feed the plant. The soil is provided with minerals through decomposition of plant residues and animal remains, weathering of soil minerals, through manures, composts, biosolids (sewage sludge), other organic amendments. Other food processing byproducts and ground rock products including lime, rock phosphate and greensand can be added.

Our article about mineral deficiencies on pages 4 and 5 gives advice on how to fight the lack of minerals in maize, beans and cabbage.
The wasp that saves the cabbage - this was the title of the story we wrote last year on a wasp against the diamondback moth (DBM). Now, scientists at the International Centre of Insect Physiology and Ecology (ICIPE) have released results of their research on the use of the wasp for the eradication of the pest. They are in a very amazing, as we will see in the following story.

A dangerous pest
Cabbage is one of the most important vegetables grown in Kenya. The average annual production is 256,000 tonnes. In the local farming system, cabbage is usually part of a mixed cropping pattern, and is mostly grown as a cash crop for the local market. The cabbage crop is the diamondback moth. Its control by chemical means had become difficult and uneconomical. ICIPE had been seeking an effective, economical and environmentally acceptable control method for the pest. They finally found a small wasp by the name of Dialymena semifacies, which is a natural predator of the diamondback moth.

The wasp acts so lethal to the moth; first it lays its eggs in the larvae of the diamondback moth. After a few days, the larvae of the wasp come out of the eggs and start feeding on the larvae of the moth, killing it. This process is called parasitism. The larva is the harmful stage of the pest, which eats holes in the leaves of cabbage and other kinds of brassicas (for instance sukumawiki, or kale).

Wasp has reduced diamondback moth
There are many pests threatening crop production that can spread very fast because they are not controlled by any enemy. One of the most common pests, the diamondback moth, is a very serious pest in Kenya. It is a dangerous pest and is very difficult to control.

Wasp has reduced diamondback moth
The successful reduction of the moth demonstrates the benefits of using biological pest control.

Biological control agents
There are many pests threatening crop production that can spread very fast because they are not controlled by any enemy. One of the most common pests, the diamondback moth, is a very serious pest in Kenya. It is a dangerous pest and is very difficult to control.

Wasp has reduced diamondback moth
The successful reduction of the moth demonstrates the benefits of using biological pest control.

Biological control agents
There are many pests threatening crop production that can spread very fast because they are not controlled by any enemy. One of the most common pests, the diamondback moth, is a very serious pest in Kenya. It is a dangerous pest and is very difficult to control.

Wasp has reduced diamondback moth
The successful reduction of the moth demonstrates the benefits of using biological pest control.

Biological control agents
There are many pests threatening crop production that can spread very fast because they are not controlled by any enemy. One of the most common pests, the diamondback moth, is a very serious pest in Kenya. It is a dangerous pest and is very difficult to control.

Wasp has reduced diamondback moth
The successful reduction of the moth demonstrates the benefits of using biological pest control.
### The Organic Farmer

**The Organic Farmer** is an independent newspaper 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 to farmers.

The Organic Farmer does not necessarily reflect the views of ICIPE.

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

**Publishers**

International Centre of Insect Physiology and Ecology (ICIPE)

P.O.Box 30772, 00100 Nairobi KENYA

Tel. +254 20 863 2000

e-mail: icipe@icipe.org

[homepage: http://www.icipe.org]

**Editors**

Peter Kamau, Peter Baumgartner

Secretariat

Lucy W. Macharia

**Advisory Board**

Dr. Reinhard Lehrl, ICPE

Dr. Nguya Maniania, ICPE

Dr. Fritz Schulthess, ICPE

Charles Kimani, Farmer, Wanjiru

**Address**

The Organic Farmer

P.O.Box 4352, 00800 Nairobi KENYA

Tel. +254 020 445 03 98

e-mail: info@organickenya.com

[Layout]

In-A-Vision Systems (k)

---

### Wasp has reduced diamondback moth

The successful reduction of the moth demonstrates the benefits of using biological pest control.

**The Organic Farmer**

"The wasp that saves the cabbage" - this was the title of the story we wrote last year on a wasp that reduces the diamondback moth (DBM). Now scientists at the International Centre of Insect Physiology and Ecology (ICIPE) have released results of their research on the use of the wasp for the eradication of the pest. They are amazing, as we will see in the following story.

**A dangerous pest**

Cabbage is one of the most important vegetables grown in Kenya. The average annual production is 256,000 tonnes. In the local farming system, cabbage is usually part of a mixed cropping pattern, and is most grown as a cash crop for the local market.

The most devastating pest to affect the cabbage crop is the diamondback moth. Its control by chemical means had become difficult and uneconomical. ICIPE had been seeking an effective, economical and environmentally acceptable control method for the pest. They finally found a small wasp by the name of Diaeodes semiclausum, which is a natural predator of the diamondback moth.

The wasp acts so lethal to the moth; first it lays its eggs in the larvae of the diamondback moth. After a few days, the larvae of the wasp come out of the eggs and start feeding on the larvae of the moth, killing it. This process is called parasitism. The larva is the harmful stage of the pest, which eats holes in the leaves of cabbage and other kinds of brassicas (for instance sukumawiki, or kale).

**Good results**

The wasp is very common in Asia but ICIPE have now shown that it is also well adapted to conditions in Africa. The two sites selected for the research (Weruga in Taifa Hills and Tharuni, Limuru in Central Province) are about 500 km apart and are known for very productive all year round. They are the main suppliers of kale and cabbages to Mombasa and Nairobi, respectively.

The scientists released the wasps in July 2002 in Weruga and in September of the same year in Tharuni. According to the research findings, the population of diamondback moths in Weruga has been reduced by more than 50 per cent. The low number of wasps released (100 females, 100 males). In Tharuni, the diamondback moths were reduced by 17 percent within one year. One of the remarkable findings of the research is that half of the moths died on the ground. They abandoned the cabbage and died after the attack by the wasp.

Environmental factors seem to play a role in the speed of the establishment of the wasp. Weruga is a relatively cool place with good rains. Tharuni is a hot and dry place, which might explain why it is taking longer to have the same impact in Tharuni as in the wetter Weruga site.

**Economical benefits**

This is why quite a number of them want the newspaper written in their local language to enable them understand it better.

Although farmers prefer Kiswahili to English, most readers understand English.

**The Organic Farmer**

Language is an important tool of communication, so when we started the Organic Farmer, one of our main concerns was which language to use to ensure the newspaper is understood by the majority of the Kenya's farming community. When we chose to use English, a number of farmers wrote to us requesting that we consider using Kiswahili in order to improve information access to more of the farmers.

**The Organic Farmer**

When we set out the questionnaires at the beginning of the year, one of the questions we asked farmers was which language they thought was appropriate to use in future. As it turned out, more than 80 percent of the farmers were in favor of Kiswahili, 10 percent vernacular languages, while 10 percent preferred English. We know the issue of language is such an important one because it determines the extent to which our readers understand what we write and are able to apply it in their day-to-day farming activities.

Kiswahili has changed

However, we also know the limitations to the use of the language, especially in defining the names of pests, diseases, botanical (scientific) names and other technical terms on our newspaper. No doubt, many farmers would find it difficult to understand these terms unless they were translated into a language they all understand.

Kiswahili as a language has changed a lot over time; this is likely to make it extremely difficult for farmers to understand the modern terms and phrases used in the language. Indeed, one only needs to listen to local radio and TV broadcast stations or read newspapers to appreciate what we are talking about.

Research undertaken on this subject shows that most of the readers in Kenya can comfortably read and understand the English language. We know that many of our farmers are not able to acquire any formal education. Therefore they may not be in a position to read and understand material written in English. This is why a quite a number of them want the newspaper written in their local languages to enable them understand it better.

**Biological control agents**

There are many pests threatening crop production that can spread very fast because they are not controlled by any agent. One of the most common methods is the use of pesticides and/or other chemicals. This is exactly the point the scientists of the ICIPE are starting from their research on parasitoids or natural enemies of biological control agents which are able to reduce the pests and protect the farmer to the environment.

One of the best-known examples of biological control programmes was the fight against the cassava mealybug in the 1980s.

There are natural native (local) enemies of cabbage and diamondback moth in Africa. Unfortunately they have failed to control this pest. However, the wasp Diamondback moth is very well known in Asia.

The earliest introduction of this wasp as a control agent against the moth was made in New Zealand. In Taiwan and in the Philippines the wasps reduced the moths by 70 percent and 64 percent, respectively. The ICIPE scientists tried to find out if the wasp could also act as a biological control agent under African conditions. This is why they have shown in the separate story above.

One might fear that new problems are bound to occur, for instance when the introduced predator insects themselves become a problem. This may not necessarily be the case. If the number of diamondback moths goes up, the number of wasps increases also. This is because they find a lot of larvae in which to lay their eggs. If there are only few moths, the number of wasps decreases and they cannot find enough larvae of diamondback moths for egg laying.

A healthy cabbage crop one year after the release of the wasp (below). Photo ICIPE
### Potassium deficiency

**Causes:**
- Poor growth
- Leaves turn yellow from the tips first. Flowering or fruiting may be reduced or delayed.
- Lower leaves turn yellow from the edges.
- Plants may have short internodes and below average yield.
- Poor growth. Leaves are small and lack greasiness. Younger leaves remain green.
- Poor growth. Leaves are pale green, in shade or nitrogen deficiency.
- Symptoms: The leaves turn yellow around the margins, between the veins and red, purple, or brown, although sometimes green with purple tint, but not yellow.
- This deficiency is not mistaken with manganese deficiency and can be confused with zinc deficiency.

**Prevention:**
- Improve soil structure. Use peat-based compost or manure, add wood ash to compost heap (do not add potash e.g. comfrey leaves or comfrey liquid. Apply well rotted compost or manure, potash e.g. comfrey leaves or comfrey liquid. Apply Minjingu rock phosphate.
- Apply potash fertilizer to increase the uptake of other elements. Weather also temporarily affects potassium uptake. Vital to the microbes in the soil.
- Improve soil structure. Use peat-based compost or manure, add wood ash to compost heap (do not add potash e.g. comfrey leaves or comfrey liquid. Apply well rotted compost or manure, potash e.g. comfrey leaves or comfrey liquid. Apply Minjingu rock phosphate.
- Improve soil structure. Use peat-based compost or manure, add wood ash to compost heap (do not add potash e.g. comfrey leaves or comfrey liquid. Apply well rotted compost or manure, potash e.g. comfrey leaves or comfrey liquid. Apply Minjingu rock phosphate.
- Improve soil structure. Use peat-based compost or manure, add wood ash to compost heap (do not add potash e.g. comfrey leaves or comfrey liquid. Apply well rotted compost or manure, potash e.g. comfrey leaves or comfrey liquid. Apply Minjingu rock phosphate.
### Mineral Deficiencies and Organic Solutions

#### Cause
- Shortage of available nitrogen in soil can occur on any soil, but is more common on light soils as the plant can only access soil nitrogen when the roots are actively growing. Soil may be naturally deficient, particularly on heavy clay or high chalk content. Most common on light sandy soils or those with low organic matter levels.
- Excessive use of high potassium fertilizers can cause a temporary shortage. Wood shavings and similar materials may be added to the soil to help break down the woody material.

#### Symptoms
- Poor growth. Leaves turn yellow or purple around the margins, young leaves may be stunted. Flowering may be reduced or delayed.
- Leaves turn yellow on the tips of old leaves, then spread to younger leaves. Growth is affected. Sometimes affected areas are suffused with red or purple. Lower leaves may be affected first. Flowering and fruiting may be reduced or delayed.

#### Prevention
- Improve soil structure. Use plant-based materials such as compost, mulching, and composted green waste.
- Use liquid organic fertilizers such as compost tea or green manure tea.
- Apply dolomitic limestone to reduce acidity in the soil.

---

#### Beans

<table>
<thead>
<tr>
<th>Cause</th>
<th>Symptoms</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor growth. Leaves turn yellow or purple around the margins, young leaves may be stunted. Flowering may be reduced or delayed.</td>
<td>Leaves turn yellow on the tips of old leaves, then spread to younger leaves. Growth is affected. Sometimes affected areas are suffused with red or purple. Lower leaves may be affected first. Flowering and fruiting may be reduced or delayed.</td>
<td>Principles of organic farming - Build up organic matter levels in soil. Grow nitrogen-fixing green manures. Apply composted green waste and animal manures. Apply Minjingu rock phosphate. Improve soil structure. Use plant-based materials such as compost, mulching, and composted green waste. Use liquid organic fertilizers such as compost tea or green manure tea. Apply dolomitic limestone to reduce acidity in the soil.</td>
</tr>
</tbody>
</table>

---

#### Vegetables

<table>
<thead>
<tr>
<th>Cause</th>
<th>Symptoms</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor growth. Leaves turn yellow or purple around the margins, young leaves may be stunted. Flowering may be reduced or delayed.</td>
<td>Leaves turn yellow on the tips of old leaves, then spread to younger leaves. Growth is affected. Sometimes affected areas are suffused with red or purple. Lower leaves may be affected first. Flowering and fruiting may be reduced or delayed.</td>
<td>Principles of organic farming - Build up organic matter levels in soil. Grow nitrogen-fixing green manures. Apply composted green waste and animal manures. Apply Minjingu rock phosphate. Improve soil structure. Use plant-based materials such as compost, mulching, and composted green waste. Use liquid organic fertilizers such as compost tea or green manure tea. Apply dolomitic limestone to reduce acidity in the soil.</td>
</tr>
</tbody>
</table>

---

#### Phosphorus Deficiency

<table>
<thead>
<tr>
<th>Cause</th>
<th>Symptoms</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of available phosphorus in soil can occur on any soil, but is more common on light soils as the plant can only access soil phosphorus when the roots are actively growing. Soil may be naturally deficient, particularly on heavy clay or high chalk content. Most common on light sandy soils or those with low organic matter levels.</td>
<td>Poor growth. Leaves turn yellow around the margins, young leaves may be stunted. Flowering may be reduced or delayed.</td>
<td>Principles of organic farming - Build up organic matter levels in soil. Grow nitrogen-fixing green manures. Apply composted green waste and animal manures. Apply Minjingu rock phosphate. Improve soil structure. Use plant-based materials such as compost, mulching, and composted green waste. Use liquid organic fertilizers such as compost tea or green manure tea. Apply dolomitic limestone to reduce acidity in the soil.</td>
</tr>
</tbody>
</table>

---

#### Nitrogen Deficiency

<table>
<thead>
<tr>
<th>Cause</th>
<th>Symptoms</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of available nitrogen in soil can occur on any soil, but is more common on light soils as the plant can only access soil nitrogen when the roots are actively growing. Soil may be naturally deficient, particularly on heavy clay or high chalk content. Most common on light sandy soils or those with low organic matter levels.</td>
<td>Poor growth. Leaves turn yellow or purple around the margins, young leaves may be stunted. Flowering may be reduced or delayed.</td>
<td>Principles of organic farming - Build up organic matter levels in soil. Grow nitrogen-fixing green manures. Apply composted green waste and animal manures. Apply Minjingu rock phosphate. Improve soil structure. Use plant-based materials such as compost, mulching, and composted green waste. Use liquid organic fertilizers such as compost tea or green manure tea. Apply dolomitic limestone to reduce acidity in the soil.</td>
</tr>
</tbody>
</table>
Choosing the right cattle breed

Ronald Nyabunya from Kitale is interested in modern breeds of livestock keeping. "I want to know how to rear Friesian, Guernsey or even Jersey. What are their advantages and disadvantages compared to traditional cattle?"

Unfortunately, it would be unwise to make a decision based on the financial advantages alone, especially when considering organic production. Buying a cow, one must look at the overall picture including organic requirements, environmental conditions, disease resistance, markets for products, operational costs and animal management requirements.

Rearing cattle the organic way

Organic standards restrict the use of preventative medicines, the use of herbicides, minimum amount of purchased feed, minimum proportion of forage in ruminant diets and prohibit the use of certain high protein feeds. This is to ensure the animals live at optimum health under natural conditions (see page 1). Healthy animals cost less to care for and provide products that are healthy.

In Kenya we have many diseases affecting our cattle. Foot and mouth, Anthrax, East coast fever, Tsetse Fly (Nagana), brucellosis, as well as many other tick-borne diseases. Different climatic conditions also affect the health and productivity of our livestock.

Some local breeds of cattle are more resistant to diseases than others. The advantage here is that mortality and veterinary costs are low. Purchase and sale price of indigenous breeds is lower and so too is milk production compared with exotic breeds.

Exotic breeds costs more

Exotic breeds require a lot of care and their maintenance costs are high in comparison as they are not adapted to local conditions. They succumb to local diseases quite easily. To reach their potential yields of beef and milk, their feed needs are greater than native breeds too. They also cost more to purchase as well as the costs of their semen through artificial insemination services.

Su Kahumbu answers your questions

Write to The Organic Farmer P.O. Box 14352, 00800 Nairobi, Kenya Tel: 020 445 03 98, 0721 541 590 e-mail: info@organicnkenya.com

Letters to the editor

Dear Farmers,

As part of our efforts to serve the organic farming community effectively, we would like to create a database of organic farmers in the country. We are interested in:

- Your names, Addresses, Location, Farm acreage
- Are you an organic farmer?

To make it easy for you, we have a special telephone number: given above. All the farmers can provide this information through short messaging service (SMS). Come on Farmers, let us jibu. Asante.

I need back issues

A friend of mine last month gave me a copy of your newspaper and it was wonderful. Let me thank you very much for your efforts. As an ordinary man simple and health ways of farming. Mine request to you is, please put me on your distribution list and please send me already issued newspapers and also as you do you put me on another subscriber.

Thanking you in advance.

Joseph K. Njeru, P.O. BOX 927, EMBU

Consider me

I am an agricultural extension worker and have lots of interest in organic farming. Could you please be sending me the organic farmer newspaper or information of your monthly publication of the organic farmer magazine. I will be grateful to be receiving a copy of it.

Grace W Mburu, P.O Box 6, Kirta- Ini, Muranga

Send copies

I intend to start practicing organic farming, please send me past and future copies of The Organic Farmer. Githinji Muthima, Yes farmers group P.O Box 162, Subukia.
Choosing the right cattle breed

Ronald Nyabuya from Kitale is interested in livestock keeping. "We want to know how to rear modern breeds of dairy/beef."

Unfortunately, it would be unwise to make a decision based on the financial advantages alone, especially when considering organic production. Ibuying a cow, one must look at the overall picture including organic requirements, environmental conditions, disease resistance, markets for products, operational costs and animal management needs.

Rearing cattle the organic way

Organic standards restrict the use of preventative medicines, the use of synthetic herbicides, minimum amount of purchased feed, minimum proportion of forage in ruminant diets and prohibit the use of certain high protein feeds. This is to ensure the animals live at optimum health under natural conditions (see page 1). Healthy animals cost less to care for and produce by-products that are healthy.

In Kenya we have many diseases affecting our cattle. Foot and mouth, anthrax, East coast fever, Tse-tse fly (Nagana), brucellosis, as well as many other tick-borne diseases. Different climatic conditions also affect the health and productivity of our livestock.

Some local breeds of cattle are more resistant to certain diseases than others. The advantage here is that mortality and veterinary costs are low. Purchase and sale of crossbred animals is higher and so too is milk production compared with exotic breeds.

Exotic breeds costs more

Exotic breeds require a lot of care and their maintenance costs are high in comparison as they are not adapted to local conditions. They succumb to local diseases quite easily. To reach their potential yields of beef and milk, their feed needs are greater than native breeds too. They also cost more to purchase as well as the costs of their semen, though artificial insemination services.

Su Kabhumu answers your questions

Write to

The Organic Farmer
P.O. Box 14352,
00800 Nairobi, Kenya
Tel: 020 445 03 98, 0721 541 590
e-mail: info@organicnigeria.com

Letters to the editor

Dear Farmers,

As part of our efforts to serve the organic farming community effectively, we would like to create a database of new farmers in the country. Are you an organic farmer?

To make it easy for you, we have a special telephone number: 0721 541 590. Are you an organic farmer? Please do supply us with the following details.

- Name(s),
- Addresses, Location, Farm acreage,
- Are you an organic farmer?

We hope to meet you.

Benson Maina, Ikinyo Self Group PO Box 125, S. Kinangop

I need back issues

A friend of mine last month gave me a copy of your newspaper and it was wonderful. Let me thank you very much for your service. I need back issues and please send me already issued newspapers and also as you distribute to others remember me. Thanking you in advance.

Joseph K Njeru, P.O. BOX 927, EMBU, jakinyo@Mungania.ktdateas.com

Consider me

I am an agricultural extension worker and have lots of interest in organic farming. Could you please send me a copy of your monthly publication of the organic farmer magazine. I will be grateful to be receiving a copy of the same.

Grace W Mburu, P.O.Box 6, Kiuria-Ini, Muranga

Send copies

I intend to start practicing organic farming, please send me past and future copies.

Githinji Muthina, Yes farmers group PO Box 162, Subukia.
Tend your fodder trees

Fodder trees need protection. If attacked by pests and diseases, their growth is also affected.

Eric Lusano Asiligwa

"Prevention is better than cure". This is a common saying of people all around the world. After the planting and establishment of fodder trees (see TOF Nr.8, May ...  Among the best tree management practices, coppicing (cutting back) of the fodder trees works wonders in increasing yields.

Coppicing

Coppicing is done to force new growth of multiple shoots and branches that provide more forage. This is done when the trees are growing vigorously. Cut down the trees to about 6 inches (15 cm) from the ground. Make a clean cut at an angle that allows water to drain off the stump to prevent rot.

Coppice for the first time when trees reach a height of about 6 feet (2 metres), usually 9 to 12 months after planting. The aim of coppicing at this stage is to encourage abundant branching for fodder production. Coppicing can also be done when trees grow old and forage production fails, possibly after 7 years.

Pests and Diseases

Pests can destroy fodder trees. Diseases can also keep the trees from thriving and lower their optimum production. They attack the fodder trees and lead to reduction of foliage and even to plant death. Fortunately only a few pests and diseases are known to cause serious damage to trees. Some trees, e.g. gliricidia and leucaena, are resistant to attack by pests such as termites. Pests and diseases of mature trees include scales, black ants, termites, crickets and hoppers.

Scales are white, powdery insects that attack plant stems, especially calliandra. Scale attacks occur during the dry season. Control scales with washing detergents dissolved in water. Sprinkle the detergent solution onto the affected plants using leafy branches or a knapsack sprayer.

Black ants damage the tree by debarking the stems. To control the ants, dig out and destroy their nests. Smeared wet dung or used motor vehicle oil at the base of the tree or sprinkle some fresh ash to repel the ants.

Termites are destructive and cause serious damage by debarking the tree and may lead to its death. Control them using the methods for controlling black ants. Some farmers use fresh urine from cows diluted with water to repel the termites once they are noticed to affect trees.

Crickets and hoppers are harmful to young and succulent seedlings at the nursery stage and immediately after transplanting. To control them use the pest repellents used in vegetable farming.

Armilleria mellea is a fungus that attacks the roots of plants, causing root rot and eventual death. It's common in areas where forests have recently been cleared. To control this problem, uproot the affected trees and burn them. Avoid planting trees in areas that have been affected by Armilleria mellea.

Caution: Avoid using chemicals to control pests and diseases on forage materials that are about to be fed to livestock. Such chemicals may affect the health of the animals and could eventually be transmitted to human beings through milk and meat.

With this article we have introduced our series on Agroforestry. If you would like to read more, consult the book "More forage, more milk", Technical Handbook Nr.33, published in 2005 by World Agroforestry Centre. The book is available at the World Agroforestry Centre bookshop, P.O.Box 30677, 00100 Nairobi.

Market place

Seedlings: Benjamin Lugano has several varieties of conventionally certified fruit seedlings of Fuerte and Hass varieties of avocado, apple, Tommy and harden varieties of mango fruit. He also has in stock, pawpaw and tree tomato seedlings. Farmers interested can contact him on the address given below:

Lugano Horticultural Enterprises
P.O. Box 323, 30200 Kitale.
Tel 0733 - 99 05 74, 0733 39 19 07

Borer control: Mr. John Sprite from Kitale has advice for fellow farmers who want to control stalk borer in their maize crop. He advises farmers to use tephosia dust. The soft part of tephosia stem and leaves is used. The stem and leaves are crushed, dried and then grounded. The dust is put in the maize funnel. Application is repeated after every three weeks. He says farmers have the alternative of using liquid tephosia extract. About 1 kg of leaves and stem are crushed. They are then put in plastic container to ferment. Later, they are mixed with 5 litres of water for a day. Steve and apply in maize funnel drops. He says the extract can eliminate the borer completely especially when applied early.

Cutworm control: Joannes Samikwo of Endebess Kitale has an interesting way of controlling cutworms to prevent them from destroying his medicinal plants. He places a Kerosene lantern in a tray of water near the plants. The cutworm moths are attracted to the light and drown in the water. This method has kept his plants safe from this destructive pest.

Controlling aphids and thrips: Caroline Kawira of Gacoka Organic Farmers group from Embu have been using a number of plant extracts to control aphids, thrips and caterpillars and nematodes. To kill aphids and caterpillars, she advises farmers to use rhubarb. The leaves are soaked in hot water at the ratio of 1:3 for 20-30 minutes and then sprayed on crops.