

The Organic Farmer

The magazine for sustainable agriculture in Kenya



Nr. 39 August 2008



Care for your goats – and get more milk

Dairy goats are now popular across the country. However, most farmers breed them in very unhygienic conditions and in small compartments without adequate space for movement and play. They are also poorly fed. All this negligence causes discomfort, stress and poor health. On pages 5 & 6 we have lots of advice by Valerie Corr, an experienced goat-keeper in Naivasha. (Photo TOF)

More shops for organic inputs

One of the big challenges for organic farmers is the supply of organic fertilizer and biological products.

Many farmers are willing to change from conventional to organic agriculture. But practising organic farming in many parts of the country is not easy. The problem is that most of the organic inputs are not available in our agrovet shops. Conventional farmers are happy because they can buy all chemicals and fertilizers, even at the local kiosk.

For organic farmers, farming is really tough business. You need diatomite for preserving stored maize against

the Larger Grain Borer (Osama)? It is not available, unless you travel all the way to the factory in Gilgil. You need Mijingu rock phosphate? Or neem-products? You rarely get it. Some weeks ago, we tried to buy a neem product in the agrovet shops in Thika. It was frustrating and a waste of time: We did not find anything. If you want to buy environmentally friendly products such as *Bacillus thuringiensis* (Bt) for pest control, you might find them in stock; but the sales people cannot even tell the differences between the different varieties of Bt products they sell.

About 70 percent of all telephone calls or SMSs we get from farmers are inquiries on where they can get this or that organic product we have written about in *The Organic Farmer*. The ideal solution would be something like a general shop in villages, where farmers can find all biological products, organic fertilizers, some books, TOF copies and other information. It would be desirable if farmers' groups, institutions and, of course, the manufacturers would pick up this idea. (TOF)

Dear farmers,

Knowledge is power! Since we started publishing The Organic Farmer magazine, we have tried to provide farmers with as much information as possible. To reciprocate this, farmers should therefore try by all means to work as professionals in order to increase production, and to do this in a sustainable way. Our overall target is to sustain the livelihood of farmers, help them to get better income and consequently have a better life. The overwhelming response from farmers who have been making telephone calls, sending us SMSs or letters and e-mails, has continued to motivate us – not only to go ahead, but to intensify our commitment to forge ahead publishing this magazine.

This month we have taken another big step forward. First, we have increased the circulation from the current 16,000 to 18,000 copies. Secondly, we now can inform you that the Internet service, Infonet-Biovision, is now fully updated especially the part on crops and crop protection. This is a comprehensive information platform, which provides organic farmers (and even conventional farmers!) with a bulk of very valuable information on crop production. Extension workers and farmers can visit the site at www.infonet-biovision.org. If you would like to order for the first edition of the CD, contact TOF office.

Thirdly, we have relaunched the radio programme that we had started in May last year for a couple of months. The programme will now be aired, as usual, on Thursdays every week, at 8.30 pm on KBC Kiswahili service. We intend to provide you with lots of advice in all areas of farming, answer your questions and give important tips that will help you solve the day to day farming problems. Listen in, we shall have competitions with attractive prizes.

Farming is a challenging profession. Rain, weather or markets – all contribute to farmers' headache. The supply of environmentally friendly products remains a big problem, as you can read on this page. But at least one challenge we have managed to solve for you is lack of information. With TOF, Infonet-Biovision and the radio programme, farmers are well served. Whoever has knowledge can use it to better his or her life, for without knowledge – and the will to use it! – there is no real development that can take place.



We are back on air!

From Thursday August 28, 2008, you can listen to the TOF radio programme again on the KBC Kiswahili service every Thursday from 8.30 to 8.45 pm. In the programme, we will give you useful tips on organic farming. You can also get your questions answered and even win prizes. Listen to TOF on radio, join us for the first programme on August 28!

Pyrethrum is a powerful, natural pesticide

Although pyrethrum is environmental friendly, farmers should be careful when using it.

The Organic Farmer

Every week, we receive calls from farmers asking us to advise them on where they can buy an environmentally friendly pesticide. This is interesting since Kenya is the largest producer of Pyrethrum in the world, one of the most effective and widely used natural insecticides. Farmers can make their own pyrethrum pesticides - if they can do it correctly. All parts of the plant (*Chrysanthemum cinerariaefolium*) can be used - flowers, leaves, and roots. Its mode of action is insecticidal, repellent, fungicidal and nematocidal.

Pyrethrum knocks down

Most insects are highly susceptible to pyrethrum at low concentrations. Pyrethrum works very fast on insects, causing an immediate "knockdown" effect. Insects are left paralyzed by its toxic nature. The normal function of their nervous system is affected. The pesticide kills on direct contact with the insect. Flying insects drop almost immediately upon exposure however

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many of them recover after the initial knockdown phase. In the second round, you can use a stronger solution; or you can use pyrethrum mixed with other compounds such as sesam oil or piperonyl butoxide. These compounds enhance the utilization of the toxic substances in pyrethrum either by increasing or prolonging their effect.

Not toxic to humans

Compared to many other insecticides, pyrethrum is biodegradable. It degenerates very fast. That is good for the environment. But if you make your own insecticide, you have to keep it in a dark place. Use it immediately you prepare the extract. Pyrethrum is relatively non-toxic to humans. The most common problem to people is its allergic properties. Pyrethrum can produce skin irritation, itching, pricking sensations and local burning sensations. These symptoms may last for up to two days. Pyrethrum is also non-toxic to most mammals, making it the safest among the insecticides in the market today. Other than the synthetic pyrethroids, pyrethrum is not so much dangerous to the beneficial insects. But you should spray early in the morning or in the late afternoon. **Caution:** Pyrethrum is highly toxic to bees.

Work carefully

- Store only properly dried flowers, use an airy container (never use plastic

container), keep it away from direct sunlight and moisture.

- Make sure that they are free from moulds before using them.

- For the extract preparation, use utensils that are not used for your food preparation, drinking and cooking water containers. Clean them after use.

- Avoid direct contact with the crude extract while making the preparation and during application. Ensure that you place the plant extract out of reach of children and house pets while leaving it overnight.

- Always test the plant extract formulation on a few infested plants first, before going into large scale spraying. When adding soap as an emulsifier (mixer), use a potash-based one.

- Wash your hands after handling the plant extract and wear protective clothing while applying the extract.

Pyrethroids

Pyrethroids are synthetic compounds whose structure and mode of action are similar to pyrethrins but they are not approved for use in organic production. There are many pyrethroids including Ambush®, A m m o®, Aztec®, Pounce® and Warrior®.



Home-made pyrethrum-pesticide

Pyrethrum alcohol extract

Preparation: 500 g of fresh pyrethrum daisy flower heads are put into 4 litres of kerosene for half a day. Stir well, strain it, and the solution is ready for use. Kerosene mixes very well: It dissolves about 70 percent of the pyrethrin.

Target pests: Aphids, cabbage loopers, codling moths, Mexican bean beetles, spider mites, Stink bugs, thrips, tomato pinworms and whiteflies.

Pyrethrum water extract

Preparation: Mix 1 to 1.5 kg of finely shredded dried pyrethrum into a drum of 100 litres water, stir vigorously, add 3 kg of liquid soap (which increases the toxicity). Spray in the evening.

Target pests: Aphid, bean fly, cabbage white butterfly, coffee bugs, colorado beetle, diamondback moth, eggplant fruit and shoot borer, flea beetle, gall midge, grasshopper, green leafhopper, locust, mites, thrips

Powder extract

Preparation: Mix 30 g of pyrethrum powder with 10 litres of water and 1 teaspoon of soap, stir well and apply immediately on infested plants, preferably in the evening.

Target Pests: Flea beetles

Powder or dust

You can make a powder or dust of dried pyrethrum flowers. As a dust it can be used either pure or mixed with a carrier such as lime or diatomite.

Farmers can benefit from micro-insurance

Affordable insurance schemes reduce the risk of losing money should farming activities fail.

Anja Bengelstorff

On a daily basis, subsistence farmers around the world face many risks that threaten to derail any progress they have made to work their way into a successful farming business and out of poverty. The death of a family member, loss of property and livestock, illness, and natural disasters each pose unique dangers. Protecting people against these losses is an important step towards alleviating global poverty.

Micro insurance - the protection of low-income people against specific risks in exchange for regular payments (premiums) proportionate to the likelihood of occurrence and cost of the risk involved - seeks to manage these risks. "Micro" refers to the small financial transactions that each insurance policy generates.

It is estimated that only 80 million out of the world's 2.5 billion poor are currently covered by some form of micro-insurance. Most remain without access to this critical financial service. In India and China, where organizations are estimated to serve nearly 30 million micro-insurance clients each, the percentage of the poor insured is below 3%. In Africa this figure is much lower - just 0.3% of the continent's poor are insured. In 23 of the poorest 100 countries in the world, there is currently no micro-insurance activity, representing an unserved population of 370 million.

Insurance schemes for the poor

However, micro-insurance schemes are a growing market world wide. The Swiss Zurich Financial Services Group sold its first micro insurance in Bolivia in 1999. It has become a familiar practice in countries like India and Indonesia. More and more insurance companies recognize the need to provide a safety net for the poor, particularly in Africa. In Malawi, the Micro Insurance Agency (MIA), an international organisation, developed together with the World Bank a weather-indexed crop insurance to decrease the risk of drought and its negative effect on crop yields. This way, farmers in Malawi can access credit for seeds and fertilizer without the danger of defaulting. Other insurance schemes might cover excessive rainfall, livestock, property, but also



Crop losses due to bad weather can be disastrous for small-scale farmers with no other source of income. Insurance can compensate such losses. (Photo TOF)

life and health as well as funeral expenses. With average premiums of as low as \$1.00 a month (KSh 60/=) for a family of five, the Micro Insurance Agency is making insurance affordable.

Micro-insurance in Kenya

In Kenya, insurance schemes that are favourable for small-scale farmers are hard to find. Equity Bank claims to have introduced a micro-insurance scheme for its farmer clients, but no details on this were available.

Blue Shield Insurance offers poultry, livestock and crop insurances. Both the poultry and livestock insurances cover the death of insured birds and animals due to uncontrollable diseases, accidents and illness; the

livestock insurance also includes epidemics and emergency slaughter. The minimum premium rate for the poultry insurance is Kshs 1,500, for the livestock insurance Kshs 1,200.

The crop insurance scheme can either be comprehensive which covers the physical loss or damage to a growing crop caused by natural disasters and others. It can also cover fire and lightning for selected crops. The premium rate depends on the type of crop and level of risk involved. It ranges between 1 and 2% for the fire and lightning policy. For the comprehensive coverage, usually a premium of between 2.5 and 3% of the expected crop's value is charged; for example one 80 kg bag of barley can insure one acre of the expected harvest of barley. ■

Micro insurance can alleviate poverty

In developed countries insurance is common in all sectors of the economy. The agricultural sector is not an exception. Farmers are insured against all forms of damages that may affect their crops, animals and machinery.

Unfortunately, in the poor countries of the 3rd world it is not like that, as you can read on this page. Here, it is even more important that small-scale farmers can rely on an insurance: If they lose their crops or livestock, they lose everything. Most of them do not have any cash in reserve; after a disaster, they have to start all over again.

It shows that governments lack concern for farmers. International insurance companies now start to dis-

cover the poor as a new market and introduce the so-called micro-insurance schemes with very low premium rates.

But even here, Kenya is lagging behind. Agricultural insurances exist, but small-scale farmers still lose out since the premiums are not low enough. If some of the funds allocated to the agricultural sector by governments and development agencies were set aside for micro-insurance schemes, farmers would be able to protect themselves from the mentioned risks. That would make them more sustainable and would, in this way, contribute to the development of agriculture - and the country. (TOF)

Right varieties and care give more beans

If you fulfill some conditions, you can get much more yield from your bean crop than usual.

The Organic Farmer

Beans are quite valuable to Kenyan farmers. They provide the much needed proteins to Kenyan families, especially in rural areas where income is low and many people cannot afford to eat a balanced diet. Being a legume crop, they also fix nitrogen into the soil thus improving it. Intercropping or rotating beans with maize and other crops has benefits because the crops gain from nitrogen fixation and essential elements such as lysine which is found in less quantities in maize and related cereal crops. Local farmers however, harvest an average of 1 or 2 bags of beans per acre. Experienced bean farmers in developed countries get up to 11 bags or more of beans per acre through proper growing and management methods. To get good yield, farmers have to grow varieties that are suitable to their areas and adopt good management practices. Beans can grow well under the following conditions:

Altitude: Beans can do well in both high and low altitude areas as long as there is adequate rainfall. They tend to grow and mature faster in lower altitude zones.

Rainfall: The best growth for beans is in medium to high rainfall areas with an average of 750-2000 mm annually. Too much rain and long spells of drought are not good for beans and reduce their yield.

Soils: Beans thrive well on well-drained soils which are high in organic matter and with a pH of between 6 and 7. Their growth is poor in water logged soils.

Land preparation: Land preparation should be done early enough so

that the field is free of weeds and ready for planting at the onset of the rains. The seed bed should be composed of fine soil.

Seed quality: Farmers are advised to buy certified seeds. However local farmers prefer using seed from their own stock; while this is allowed because beans are self-pollinated, farmers should be careful when selecting seeds for planting.

Ensure all wrinkled, damaged or diseased seeds are removed. Seeds when planted are prone to fungal diseases and pest damage before they germinate. To prevent these, all seeds must be treated with organic fungicides and pesticides, a range of which is available in the market.

Inoculation: Inoculation of beans before planting is very important. Inoculation is the process of mixing bean seeds with nitrogen-fixing bacteria called rhizobium, which enables the bean plant to take in more nitrogen during the growth cycle. Inoculated beans yield more than those that are not. Farmers can buy rhizobium from seed companies or enquire from agricultural research institutions near them. Taking soil from a field previously planted with beans and mixing it with your seed beans also inoculates the seeds.

Planting: Beans should be planted at the onset of the rains. Delay in planting may cause a reduction in yields or even crop failure.

Spacing: Where beans are planted alone, planting should be done in rows at 50 cm by 10 cm (one seed per hill) if weeding is done using animal



drawn implements or tractors, then spacing can be done according to the implement to be used for weeding. Beans should ideally be planted in furrows- this protects the bean pods from contamination because the leaves hang over the edge of the furrow. For farmers who want to intercrop beans with maize, two rows of beans 15 cm apart can be planted between the rows of maize. Plant one bean seed per hole when using this spacing pattern. The alternative is to plant one bean row and then two seeds per hole. The depth of the plant is not a problem in bean growing and can be done by eye estimation.

Seed rates: The amount of seeds required for a given area varies from variety to variety and the size of the seed. The bigger the size of seed, the more the quantity of seed required. Beans grown as pure stands take up more seed than when intercropped with maize.

Fertilizer application: The use of farmyard manure or well decomposed compost is highly recommended for bean growing especially in areas where soils are low in organic matter content. The manure should be applied at least 1 week before planting. Apply 7- 10 tons of farm yard manure for every 1 acre of land.

Weeding: Weeding should be done continuously to ensure all the weeds are controlled. Farmers are advised to weed the crop 2-3 weeks after emergence followed by second weeding 3 weeks later (before flowering) when beans are planted alone. Avoid cultivation at flowering time when the field is wet as this can spread diseases.

Harvesting: This should be done immediately the pods turn brown and hard before they start shattering.

Bean varieties and suitable growing areas.

Bean variety	Maturity (Days)	Suitable growing areas	Remarks
Rose coco	90	Trans-Nzoia, Uasin Gishu, Kiambu,, Meru, Nyandarua, West Pokot, Keiyo, Marakwet, Nakuru, Laikipia etc	
Canadian Wonder	95	"	
Mwitmania	99	"	
Red Haricot (Wairimu)	88	"	
Mwezi moja	85	"	Can also do well in low potential areas with between 500 and 750 mm of rainfall
Katamani bean 1	60-65	Kitui, Makueni, Baringo	Perform well in areas between 900- 1600 m above sea-level.
Katamani bean 2	60-65	"	Affected by leaf spot and halo blight in areas 1200 m above sea level

The Farmers Classified

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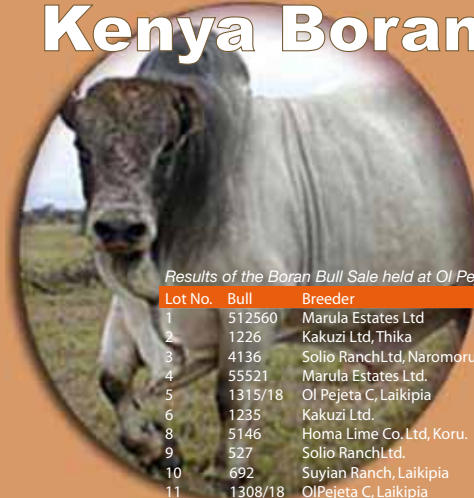
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Kenya Boran Bull Sale



Results of the Boran Bull Sale held at Ol Pejeta Conservancy on 7th. June 2008:

Lot No.	Bull	Breeder	Buyer	KShs
1	512560	Marula Estates Ltd	El Karama Sahiwals, Laikipia	95,000
2	1226	Kakuzi Ltd, Thika	Ol Maisor Ranch, Laikipia	85,000
3	4136	Solio Ranch Ltd, Naromoru	Marula Estates, Naivasha	145,000
4	55521	Marula Estates Ltd.	Suyian Ranch, Laikipia	80,000
5	1315/18	Ol Pejeta C, Laikipia	Ruhombe Borans, Uganda	150,000
6	1235	Kakuzi Ltd.	Ol Maisor Ranch, Laikipia	75,000
8	5146	Homa Lime Co. Ltd, Koru.	Ruhombe Borans, Uganda	175,000
9	527	Solio Ranch Ltd.	Ol Donyo Farm (Timau) Ltd	193,000
10	692	Suyian Ranch, Laikipia	Mpala Ranch, Laikipia	70,000
11	1308/18	OlPejeta C, Laikipia	David Kamukama, Uganda	215,000

Source: Giles Prettejohn, Livestock Manager, Ol Pejeta Conservancy, + 254 (0) 20 203 3239, +254 (0) 733 299592, gilesj@olpejetaconservancy.org

Following the postponement of the Brookside 2008 Livestock Breeders Show & Sale, The Boran Cattle Breeders Society organised a Kenya Boran Sale at Ol Pejeta Conservancy. This confirms that animals can fetch better prices as well.

Wake-up ...farming is a business not just a hobby

Farmer's Diary

Conferences

25 - 28 August: Biovision will launch Infonet 2012 with the aim of Co-creating a farming information hub for the next decade in Kenya.

05 - 09 Oct: International Institute of Tropical Agriculture (IITA) invites you to the International Banana Conference 2008. Target: scientist, policy maker, government, NGO, donor, importer, exporter, trade, private business, tissue culture firm, farmer group, farmer cooperative. For more see, www.banana2008.com

Courses & Training

07 - 08 August: Dairy farmers field day at Mrs Nevill's farm in, Opp Kentmere, Tigoni, Limuru.

Shows & Exhibitions

14th Aug: AgMark Farmers Exhibition Day. At Tala Market, Machakos.

19 - 21 Sep: Kenya Trade Fair and Conference, Sandton Convention Centre, South Africa. email: ktrade@mweb.co.za or judy@kenyatrdefair.com or info@kenya.org.za

General

Oct 15 - 18: Global Expo Botswana. Agribusiness, leather manuf., Power & Renewable energy and others. At Gabarone, Botswana. tel: +2673181931, fax: +267 3170423 globalexpotswana@bedia.bw

Organic Mark

Kenya produces Organic meat and a variety of other products. But are our products certified to access and compete in the international market and fetch our farmers premium prices. The answer is NO, but who is responsible? Shoppers should remain warned to look out for Certification Marks on all "Organic" Products, otherwise you are exposed to very high risk of paying premium prices for products grown using conventional methods which are not necessarily organic. TFC



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Apply for Diploma in Organic Agriculture or Certificate course to Kenya Institute of Organic Farming (KIOF). The course is fully residential at KIOF, Juja town. Fees are reasonable. Mean grade D+ or C-. Intake for the September/October 2008 is now in progress.



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Toothpaste

- 2 Table spoon Baking Soda
- 1 tea spoon salt

Mix with water to form a paste.

Soap

- 3 litres melted fat, 1 can lye
- 1.5 litres water

Instructions/Caution

- **Lye** is very irritating to the skin and can do severe damage to eyes and throats.
- Use extreme caution when using lye, always keep it away from children. You **should use rubber gloves and safety glasses when using lye.** Follow the directions on the back of the lye box on how to handle lye.
- You can also make your own lye by pouring water over wood ashes and saving the byproduct--lye water. The lye water is then added to fat to make soap.
- Although lard is the main ingredient in soap, one can successfully substitute with other oils to use in its place. Possible substitutions for lard can be sunflower, canola, or just vegetable oil. (I have found that soap made from oil is greasier than that made of lard.) Lard can be purchased at a grocery store or a butcher shop.
- **The utensils you use in soapmaking should be saved for soapmaking use only and should not be used thereafter for food purposes.**
- **You must not use metal pans and utensils, like aluminum, iron, tin, or teflon for soap making.** You can use cast iron (as in a kettle, if you are making it outside over a fire) or enamelware, stoneware, wood, glass or plastic and (nyungu) earthenware pot.
- **Always add lye to cold water.** Not vice-versa. Remember to stir slowly to avoid splashes. The water will start heating up once the lye is added, due to a chemical reaction. Afterwards, pour the lye solution into the fat, once again stirring slowly.
- Chunks in your bar soap is caused by the separation of the lye and the lard. The chunks are the fat. If this happens, melt the mixture and add a cup of water at a time, until the mixture is thick and syrupy again.
- You can make your own soap molds out of a rag-lined box or glass cake pans or casseroles. Simply slice the bars with a knife after the soap has cured for a week.

Steps to follow:

1. Add lye to water and dissolve.
2. When container which holds the lye water is warm, add the fat and stir until cool. 3.
3. Pour into a cloth lined box or mould, or a box that has been dipped in cold water, and then cover.
4. Leave for 7 days until ready cut soap into squares.

Source: farmgal.tripod.com



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Nature's most perfect food may also help smokers quit

Milk does your body good in many ways, but what you may not know is it can also help you quit smoking.

Researchers from Duke University Medical Center in Durham, North Carolina report consuming milk, water, fruits and vegetables make cigarettes taste bad.

The findings could lead to a quit-smoking diet that would make cigarettes less palatable, says lead study researcher Dr. Joseph McClernon, an assistant research professor of medical psychiatry at the Duke Center for Nicotine and Smoking Cessation Research.

"With a few modifications to their diet—consuming items that make cigarettes taste bad, such as a cold glass of milk, and avoiding items that make cigarettes taste good, like a pint of beer—smokers can make quitting easier," McClernon said.

The researchers asked smokers to name items that improve or diminish the taste of cigarettes.

The findings appear in the *Nicotine and Tobacco Research Journal*, funded by the National Institute on Drug Abuse.

Source: Duke University Medical Center



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A good farmer knows the needs of a goat

Dairy goats are easy to keep and can supply you with milk if you care for them well.

Val Corr *

There is an old saying: 'The eye of the farmer fattens the beast'. In our experience, with varied species of livestock, this saying is very true. It simply means that a good farmer, by watching his stock, will know what it needs to thrive.

Zero grazing and fodder

Zero grazing, as we know, applies to a huge percentage of Kenya's livestock, particularly in the case of small-scale farmers. Dairy goats are an ideal animal for the small-holder farmer as they are relatively cheap to keep, take up very little space, are easy to feed and produce more milk than a cow, which takes up more room, eats more food and costs more to keep.

It has been our experience that goats kept on zero grazing are fed mainly on Napier grass. Other green matter is only fed when available. Although the food is sufficient, especially if it is subsidized with a small amount

**Val Corr, Lake Breeze Farm & Toggenburg Dairy Goats, Naivasha. If you wish to contact her for further advice, please call her on Tel. 0734 913 049.*

In the next TOF-issue: Birth weight, weaning, feed and bucks.

of concentrate feed (i.e., dairy meal), there is total lack of 'herbage'. The goat is, therefore, being fed more like a rabbit. This can only be remedied if the goats are left to graze free range or, alternatively, if herbage can be cut and put into the stalls.

In some instances it is necessary to tether goats. This should never be done by attaching a rope to the leg. Not only is this cruel, it can also result in serious injury. Goats should always be tethered by the neck and, preferably, with a rope tied to a collar. It must be ensured that whatever the rope is tied to allow the goat to move freely round the stake as, otherwise, you will find that the goat finds itself on a rope so short that it cannot move and, more dangerously, it may strangle itself.

Exercise and playing

Young kids will show a natural ability to jump up and down from as early as 2 days. They will instinctively look for places to play by jumping on and off anything that is higher than the ground. It would seem that this is a crucial part of their growth and, in our opinion, it is essential that goats should be allowed to jump on an off things, and be able to play freely.

If left to their own devices it is apparent that they are happy to interact with each other; energetic



games will become part of their daily pattern. This exercise ensures the growth of strong bones and muscles. It is possible, even in the zero grazing situation, to rig up things for the goats to play on, for instance old car tyres, stones etc.

Careful eaters

If you are able to free range your dairy goats, you will observe that they are very discerning eaters. In other words, they tend not to destroy the environment in the same way as the Masai goats do. They will eat at

Continued on page 6

Goats require good shelter and enough space!

It is essential to house your dairy goats off the ground. The floor of the pen should be slatted (with gaps for the droppings to fall through), but the gaps between the slats must be small enough to stop the feet from slipping through. This is very important as their feet very easily get lodged, and this can cause serious injury). The reason for housing off the ground is to ensure that the goat is not lying on wet bedding which can result in coughs and will certainly 'taint' the milk.

Goats don't like rain

The pens must be well-ventilated, but covered against direct winds, for goats will quickly develop coughs and colds if they are housed in damp or drafty pens.

Even more importantly dairy goats should never be allowed to get wet (i.e., left out in the rain). We have observed that, at the first hint of rain, they will all try to get inside the stalls. It is essential that the floor of the pen is covered with

a thin layer of hay. The goat will eat most of this during the night which is necessary for its intake of roughage.

The droppings and urine, which fall through the slats, can be raked up two or three times a week and made into compost by placing it in neat piles and allowing it to rot down. This can be used on the shamba or sold as a by product. I can assure you that it is a very sought after commodity!

Goats are not prisoners!

Goats kept on zero-grazing generally have very little room outside their stall in which to exercise. Some goats we have seen do not even have a pen to roam in; they spend their entire life in a stall. This, without doubt, severely restricts their growth and is extremely detrimental to their well-being. It is, therefore, very important that, no matter how small the farm is, goats have access to at least a small pen during the day.



Two types of goat pens; above: a good shelter for goats to stay at night, during daytime the goats are out grazing. Below: a good pen, but the goats have no space for movement; a poor feeding system, as the goats are walking on their feed leading to more wastage. (Photos TOF)





farmers forum

Letters to the Editor: an abused section

“Bravo, hurray, TOF *tosha*, we need more copies of your magazine”. These are the slogans that have dominated this section of the letters to the editor for the four months I have read the magazine. As far as these bags of praise and prayers for more copies are justified, I have been asking myself if farmers should not begin to discuss on this page with the name “forum” their real problems of their day-today-life.

Let me give you an example. In the last issue, in the article on Meru Herbs, the government’s proposal to charge horrid amounts of money for using water from rivers or lakes was reported. How can the government on one hand assure the farming community that it is interested in improving the livelihoods of small-scale farmers while on the other hand it is actually oppressing them? Where are the farmers to fight against these policies that are pushing the small-scale farmers to the wall? Should an important magazine like TOF not be full of letters of farmers who complain about

this kind of contradictory behaviour?

Of course, one of my fellow farmers may say: “Me, I do not use water from a river, I am not affected.” Maybe it’s true! But if we only cry foul when we are affected personally, then we will never change anything. We have, with TOF, the opportunity to mobilize the farming community in accordance with the saying: together we are strong! All what we do, my colleague farmers, is to wait and sit. Prices are going up? We wait. The roads are a disaster? We wait. The power supply? We wait!

TOF is a forum for exchange of ideas, not just a prayer breakfast for more copies. This part of our magazine is boring! I believe that we, the farmers, hold the key to the betterment of this section of letters to the editor only if we wrote about real issues such as infrastructure, agricultural services, farming experiences, health and wealth etc, etc, world without end... will you say yes!?

Philipp Ng’aa, frustrated farmer, Machakos

Where is TOF?

A monthly magazine should appear monthly and TOF has been quite faithful in producing monthly copies. However, the pains and frustrations of a delayed magazine are similar to a delayed salary at the end of the month. With delayed salary one cannot be able to pay house rent and the landlord comes knocking at the door. Likewise, with a delayed magazine the monthly mental bills for the quest of knowledge are also delayed leading to a host of problems invading the farms of TOF addicts. The TOF team should thus wake up and improve on the logistics for circulation of this magazine! Thank you!

Paul Kimani, Nyeri

Dear Paul,
Sorry Paul, and other affected farmers for getting your TOF copy late or even getting nothing at all. The reason for this, however, is not that we are asleep. All TOFs are dispatched the same day through Securicor and the Post office. In many cases the owners of shared Post Office Boxes do not hand over the magazine to the addressee in time, or they keep the magazine, or their box rentals are not renewed. So the Postal Corporation sends the letters back to us.

Often the chairpersons of farmers’ groups hold copies in their houses for whatever reason, or give them out to friends or even family members instead of fellow farmers. We are getting so many similar complaints from farmers like you, Paul. Few weeks ago we visited some distributors in western Kenya and found an NGO keeping hundreds of TOFs in a cupboard instead of distributing them.

We have good eyes, but we cannot see in all offices of the group-chairpersons or the NGO’s! So Paul, and all you farmers, if you do not get the magazine in time, send us a letter, sms or call us. We will help you to get it! If possible, you should try to get your personal post office box to solve this problem. (TOF)

I got turkeys through your magazine

I congratulate you for your magazine and also wish to thank you for publishing my request for turkeys. Right now I got turkeys through your advertisement. I distribute your magazine to farmers groups near me.

Peter M Kibara, P.O Box 336, Nyeri
Tel. 0721 155169

Questions? Ideas?
Complaints?
SMS us, and we shall get back to you.

0721 541 590 / 0738 390 715



>>> from page 5: Dairy goats

one type of herbage for a while and then all change to a different type of food. It is in this way that they pick up naturally produced vitamins and minerals from the surrounding herbage, even if this only consists of grass and ‘weeds’.

They will, however, require an addition of concentrates, such as dairy meal, bran (fibre) and molasses, if they are expected to produce a good supply of milk. A good milker will give anything from 3 – 7 litres per day if looked after and fed properly.

Vaccinations

It is in the interest of the owner that the goats are inoculated (vaccinated) appropriately. Vaccination against foot and mouth disease is a must, especially where there are lots of livestock kept in one area. They should be vaccinated annually for Pasteurella, which is a killer disease in goats (viral pneumonia) and also for Clostridium. This is a highly infectious bacteria that lives in much of the soil in this country. Seek the advice of your local veterinary officer. None of the above inoculations are expensive, but nevertheless they will save you a lot of money and heartache in the long run.

De-worming

It is essential that you de-worm goats every three to four months. Vary the type of worm treatments to avoid immunity to a certain brand. It is important that they are de-wormed at least once a year with a treatment that covers nasal bot and at least once a year with a treatment that covers lung worm. Owners often mistake snotty noses for a cold when it is, in fact, caused by flies which lay their eggs in the nostrils, causing nasal bot.

Healthy milk

It is becoming obvious that more and more farmers are looking at the dairy goat as the preferred animal for milk production. Goat milk is easily digestible and is tolerated by people who cannot tolerate other dairy products. It is low in fat and cholesterol and is known to be beneficial to children who suffer from asthma and skin complications. ■

Many ways of controlling moles

Moles are destroying my cassava; and can beans be planted in sandy soil? Dennis Matungu, 0726 730 203

Moles are indeed a problem to many of us farmers. We have tried various methods but the best seems to be to find a mole catcher: the guy who ties a tin to a stick with a noose and baits it underground. It really seems to be an art. Mole catchers seem to know the habits of moles better than most of the farmers.

A second method we tried was to smoke the moles, by blocking up all of their holes and blowing smoke down one. The smoke will travel down their tunnels and eventually suffocate them. This needs a lot of patience, matches and dry grass. Take care not to set your farm on fire!!

Once we had a guy who put a tuber down the end of a mole hole and sure enough there was a dead mole the following day with a mouth full of the tuber. I do not know what the plant was though I somehow think it was a simple potato. I have often seen big birds of prey catching moles, so encourage them into your property by planting some tall trees around



your boundary. Another easy method of controlling moles is by using the castor oil plant especially of the red variety. Cut the leaves and the ripening fruit into small pieces and plug them into both sides of the mole tunnels, moles do not like the smell of castor oil plant and will move away immediately they sense the smell. A mole's skin is very sensitive to some plants such as stinging nettles. All a farmer needs to do is to cut the nettles and plug them into the tunnels used by the moles in the same way as the castor oil plants. When the moles come into contact with the nettles, they cannot withstand the stings and will immediately move away.

Of course it is not wise to kill the moles, the tunnels they dig allow air to go into the soil, which in turn sustains soil organisms that support plant life.

Beans in sandy soils?

Yes, beans can be planted in sandy soil as long as it has enough nutrients. However, ensure that they do not dry out as these soils tend to drain and dry quickly. **Su Kahumbu**

Capsicums require warm temperatures

Hi TOF, I am planning to put up a greenhouse for growing capsicum in Eldoret. What is the ideal temperatures to maintain it? Tel. 0721 856 519

Capsicums love high temperatures. Germination temperatures can be as high as 28 °C, though optimum production temperatures range between 21-25° C. Night temperatures are best at around 20 ° C.

If you have an expensive temperature controlled green house this is easy enough to maintain, however if it is not very high tech, you will have to make some of the following adjustments: Try to construct your green house taking into account the natural air flow around the building. I had the rear of mine facing the on coming

wind flow with no ventilation on that side. This meant, the airflow would come up and over the structure but could come on the sides to displace the hot air. My greenhouse was about 4 metres high on the front and 3 metres high at the back. The front side had a half a metre ventilation window at the top running its entire width. The sides were covered but also had a slight slanting ventilation gap. One side had a door. If you find you are losing too much heat at night, attach polythylene flaps to cover the ventilation windows. **Su Kahumbu**

especially African marigold.

Blight is very difficult to eradicate. Copper oxychloride is allowed in organic production but in limited quantities. Where there is blight in the soil, it is best to rotate your crops to another family group for a few growing seasons. **TOF**

A cook wants to become a farmer

I have a ¼ acre of land just near the river. I am a cook, but I would like to be a farmer. I would like to plant different types of crops like potatoes, tomatoes and cabbages, and I also have a cow. Please assist because I don't know how to start. Wafula, Tel.0721 731 233

Hi Wafula, you have a wonderful combination! A cow will give you the manure you need to feed your crops. Make sure you grow some crops to feed your cow!

Start preparing a small area of land to start a seed bed and sow a couple of beds. Keep the soil moist as the seeds germinate. Meanwhile, start making a compost pile, by staking out a 1 metre by 2 metre area. Start layering biodegradable dry materials such as maize stalks, grass, leaves, cleared plants etc with green material and manure until you have a pile one meter high. Soak the entire compost pile with water and cover it with banana leaves or a sheet of plastic and leave it for 3 weeks. During this time check to ensure it does not dry out, add water if necessary.

After three weeks, turn the compost pile until the materials are well mixed. Stack it again. It will decrease in size as it rots down. After another three weeks your pile should be ready, and your seedlings will also be more than ready for transplant.

Seedlings are ready to plant at 4 weeks, so start your compost preparation two weeks before you plant your seed beds. Prepare your growing area and when transplanting, add good two handfuls of compost into the planting holes. Mix in a little soil and then plant your seedlings. Water straight away and thereafter every 3 days or so depending on your soil type. Tend your plants and watch out for insects and signs of disease.

Su Kahumbu

Organic fertilizer is just as good

Can the organic fertilizer that KFA is selling be used to plant groundnuts or peas? Francis Kimani 0710 968 554

Any organic fertilizer will do well with groundnuts or peas. But we would recommend that – instead of buying organic fertilizer – you produce your own healthy compost. Whenever you want to plant any crop you can be able to reduce your expenses by using your own compost which is cheap; it will require some bit of extra labour, but you can save a lot of money. **TOF**

Which plants repel worms?

Can I intercrop tomatoes to control worms? Are there any plant extracts that can eradicate blight? Maurice Juma, P.O Box 111, 50212 Ndalul, Tel.0734 607 294.

Plants that repel soil born insects when planted are onions, leeks and

tips and bits

from farmers for farmers

The value of organic manure

Organic manure is not taken seriously by most farmers as a fertilizer that can help improve soil fertility on the farm, but according to research conducted by various institutions, it was found that the use of farmyard manure can boost crop yields significantly. New findings now indicate that farmers can increase their crops yields by between 10 to 15 percent after reducing the use of chemical fertilizers in crop production. The use of increasing amounts of organic fertilizers has been found to increase soil fertility and its nutritional value.

Manure and foliar feeds

Preliminary results of the ongoing push-pull project in parts of Central province which is being implemented by KARI and funded by BioVision Foundation support this view. Small-scale farmers who used well-composted organic manures in their demonstration plots at the start of the season have healthier crops than those who did not. The crops were even better where the farmers used foliar feeds from plant teas made from tithonia.

Samuel Njihia, the project leader says that farmers participating in the project are only allowed to use organic

inputs on the push-pull sites. "From mere observation, the difference in crop health between the organically grown crops and conventional ones is very clear. In the second season we expected to have even better results because the farmers will have mastered adequate skills in preparation of compost," he says. We will give you the full report on the importance of manure in one of the coming issues of *The Organic Farmer*. (TOF)



Right: A healthy intercrop of maize and beans grown using organic manure.

Below: Farmers scout for stem borer infestation in a push-pull demonstration plot at Kagunduini, Thika. (Photos KARI)



New market for organic produce

The marketing of organic produce from small-scale farmers in East Africa will now be easier following the establishment of a streamlined supply system that has been set up by two marketing outlets in Kenya and UK. The outlets will enable farmers to sell organic produce locally and abroad. Organic farmers in any part of East Africa will get orders for supply of various organic products and also alert the buyers of the type of produce they want to sell through a computerised information system that will be linked to their mobile phones.

Su Kahumbu of Green Dreams' Organic Shop has teamed up with a UK-based organic food marketing chain to form the Food Network of East Africa (FNEA) that will train local farmers on the requirements of production, packaging and marketing of the various organic products that are produced in the three East African countries for both local and the export market. They will buy the products.

Hurdles: Standards and Credit

"Our intention is to consolidate the organic produce from various parts of East Africa and sell these products in the region and also in the export market. To do this successfully, we have to train them on supply of the required volumes and quality", says Kahumbu. "The main problem that faces local organic farmers is the inconsistency in supply of organic products including overproduction or underproduction," she added. Organic farmers will be trained on quality assurance systems to ensure that the produce they supply is of highest quality. The training on quality will reduce rejection of produce for failure to meet the set organic standards.

Another hurdle that faces local small-scale farmers has been lack of credit. To overcome this problem, Kahumbu says FNEA is also networking with a number of micro-finance institutions to train farmers on where they could source credit to overcome their cash flow problems. Farmers will also be trained on local and export certification requirements, and introduced to organic input providers. Organic farmers interested in joining the organic supply chain can contact Su Kahumbu for details, call Tel. 0721 100 001.