



■ The Water Buck

## Doubly safe from the tsetse fly

Domestic animals such as calves, donkeys or sheep stand little chance of survival in areas where the tsetse fly carries the deadly disease nagana. In contrast, wild animals are not affected by the disease. It was this observation which sent insect researchers at the ICIPE International Insect Research Institute off on the trail to solve the problem of nagana.

Scientists investigated several wild animal species native to the East African savannah to find out how they defend themselves against the tsetse fly. In the body odour of the water buck they found 18 biologically active defence components. They also suspected that some of these might be contained in the water buck's breath. After extensive tests they solved the puzzle. They discovered that the tsetse fly's sense of direction is blocked when it comes near the water buck. The antibodies in the animal's odour block the tsetse fly's direction sensors from quite far away.

As a result, the water buck becomes 'invisible' to the fly. The second body odour defence mechanism operates at a short distance, somewhat like insect spray. If, despite its blocked direction sensors, the tsetse fly succeeds in finding the water buck, it is repelled by the animal's natural body odour. The animal remains safe behind this double defence system, protected from the deadly nagana virus.

The scientists are now trying to create a kind of flea collar to protect domestic animals against the tsetse fly. They

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## ■ Editorial

### Now words must be followed by deeds



When the international community met at the Environmental Summit in Johannesburg they set out their aim of halving poverty in the world by 2015. I was able to speak to several politicians, economists and scientists. They all agreed that the battle against poverty must be fought on all levels.

Now the big conference is over and deeds must follow the words. We need lasting solutions, which the people of the Third World can manage themselves. To do this they need practical help. Switzerland has taken a positive step towards this. Dr Walter Fust, head of the Department for Development and Cooperation at DEZA has assured me of his department's financial support for ICIPE's research into environmentally friendly, appropriate solutions. This gives me courage, the suffering in Africa can be alleviated. Biovision will take its discoveries and solutions out to the stricken farming communities. In this practical way we will support the goal set at the Johannesburg Environmental Summit.

Hans Rudolf Herren, President  
Biovision/Director ICIPE

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could then use a 'push pull' method – both repelling and attracting. The flies would be repelled by the flea collars, and attracted by traps using animal urine and colour. Flea collars would be very suitable for the Masai's nomadic lifestyle. The 'pull' part of the method - traps - is already well developed and is being used to great effect. The 'push' part - flea collars - is still at the research stage. But Hans Rudolf Herren is quite positive about it, 'We've found the right track and we'll stick to it'



## ■ The Merry-Go-Round

### Women's self-help

On market day a small group of eight women meet in Nyabia, a small village next to Sindo, where the weekly market takes place. They have clubbed together to give one of their number a small sum of money. None of them would normally have that much. The chosen woman can then use the money to trade and can keep a profit. She can buy a sack of sugar, salt or corn at the weekly market and resell it in small quantities. Every week a different woman gets the opportunity. They call this the 'merry-go-round'.

## ■ Seedlings

### Vigorous growth thanks to Neem powder

In the Lambwe Valley, the women's group, Ndiru, are gradually moving towards ecological methods planting out their vegetable seedlings. On the advice of Biovision eco-trainers, they have put a teaspoon of Neem powder into each hole when planting out. Neem, a by-product of Neem oil production, protects seedlings from marauding insects. The results are astonishing. Nearly all the plants have survived and grown well although it is the dry season, when farmers would normally expect losses of up to 50 per cent.

## ■ Compost

### Keeping the soil fertile

In collaboration with the Kenya Institute for Organic Farming [KIOF], Biovision organised a seminar on organic farming at the ICIPE at Mbita. Until now people have not been very aware of the connection between soil fertility and the size of their harvests. Plus, chemical fertilisers are expensive. Compost is the answer here. You have to learn the right combination of dry and green vegetable fibre, cow dung and ash. A great deal of emphasis is placed on practical matters, because these farmers will be expected to promote this method in their own communities. At the end of the course, members worked out a plan for introducing the new technique to their fellow farmers.

## ■ The Principality of Liechtenstein

### Computers for Africa

At the end of November, computers from Vaduz in Liechtenstein arrived at ICIPE in Nairobi. They were equipped with Windows 2000 and Office 2000, and had been used for three years in IT school classes in Vaduz. When the time came to replace them, Christian Weidkuhn, head of the Department of Technical Supplies, asked Frau Kieber-Beck, the politician in charge, for permission to donate the computers to Biovision. She thought this a great idea and gave the project the green light. Biovision thanks Mr. Weidkuhn for his enterprise, and the Principality of Liechtenstein for their support.



'I hope the computers will be really useful at Biovision.' Christian Weidkuhn, Vaduz

## ■ A day in the life of

### Sofia Auma Okoth, Farmer in Nyaberi, Kenya



–There is a great difference between what I do in the wet and in the dry season. It is the dry season now and it has been **very** dry. Not a drop of rain fell between May and October. Because of this I have to get up at four o'clock in the morning to go to the fountain. There is no tap in our village, the nearest one is a few kilometres away. When I get there I join the queue with the other women. When my turn comes, I fill all three of my 20 liter canisters. This saves me having to queue again later. I get back home at about nine o'clock with the first canister.

Collecting water for the household is traditionally women's work. My husband doesn't collect water for the seedlings any more, ever since our two donkeys died of nagana, a disease carried by the tsetse fly. There was usually some water over from that for the house and the garden. Now many of the plants have dried up.

I had thought of trying out the 'push pull' method against the parasite that attacks our maize crop. You use desmodium beans and napier grass, which would also provide fodder for our cow, but she died last year of nagana. So did the two oxen that used to plough our land. Now we only have three sheep left. Luckily I had increased my poultry stock some

time earlier. At least now we have enough eggs and the occasional bird in the cooking pot. I wanted to see what would happen if I sowed desmodium beans between the rows of maize. I sowed them at the end of May, probably too late. They didn't grow well, but I still got a fair maize harvest. My particular joy are the fruit trees. Oranges, lemons, papayas and mangoes, which help me give my children a healthy diet.

Back to my day. By the time I get back from my first trip to the fountain, my husband has already given the children their breakfast. The older ones have gone to school. I quickly eat something and go back again. By one o'clock I am back home with the second canister. I make lunch and prepare the evening meal. Then I go back for the third time. Then I have to hurry to get everything else done, collecting wood and feeding the animals before nightfall. We eat our supper by the light of a paraffin lamp. At eight o'clock the children go to sleep. I am normally dead tired and fall into bed soon afterwards.

I do hope the rains will come soon and, with them, a day when I won't have to carry all this water.

Written by Claudia Friedl, visiting scientist at Mbita Point, Kenya.

## ■ Biovision

### Guest appearances at Bio Suisse, EvB [*Declaration from Berne*] and FIBL

A report about Biovision's eco-trainers was published in the October edition of Bio Actuell, (Issue 8/2), the magazine of Bio Suisse and FIBL, with the title: World Food Day. Biovision's eco-trainers were also referred to in the joint document N111/2002 produced by EvB and Bio Suisse. Biovision thanks these two organisations, with which it has common objectives, for their support. The brochure is available from Bio Suisse, 4053 Basel [Vereinigung der Schweizer Bio Landbau-Organisationen] Tel. 061/385 95 10. [www.bio-suisse.ch](http://www.bio-suisse.ch)

EvB [Erklärung von Bern]. P.O.box, 8031 Zuerich. [www.evb.ch](http://www.evb.ch)

## ■ Brandenberger Prize

### Hans Rudolf Herren honoured for his life's work



Nigeria 1982

On the 30<sup>th</sup> of November a beaming Hans Rudolf Herren received the Brandenberger Prize from the President of the Brandenberger foundation, Dr Karel Zoller.

Dr Zoller said that Dr Hans Rudolf Herren had been chosen, not only because he is an eminent biologist whose achievements in environmentally-safe pest eradication have been enormous, but also because he has had a very beneficial impact on society. Dr Zoller added that the Brandenberger



Dr. K. Zoller, Dr H. Herren

Prize is very important in Switzerland. It is in some ways a kind of Swiss Nobel prize. In their letter of invitation to their 13<sup>th</sup> prize giving, the Foundation set out their reasons for conferring the award on Professor Doctor Herren: 'For his pioneering contribution to safe and improved living conditions for the rural population of Africa, by developing environmentally appropriate systems of agricultural production'. The Foundation was set up by Frau Maria Martha Brandenberger who died in 1986. She was the daughter of Dr J E Brandenberger, who invented cellophane. The aim of the award is to honour a Swiss individual or institution who

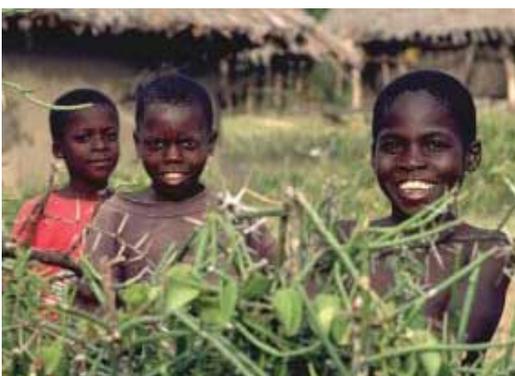


Hans Rudolf Herren, 2002

has staked everything for the benefit of mankind. Independent of gender, religion or political persuasion, the prize is given for achievements during a person's lifetime in the arts, natural sciences, social work, or the promotion and preservation of culture, as well as in raising living standards.

The Prize Committee consists of representatives from the scientific, social and cultural fields who suggest candidates to the Foundations' council.

The Biovision Association would like to congratulate their President on this great honour.



## ■ A film about Hans Rudolf Herren

### A Vision for Africa

In the spring of 2002, the education department of SF DRS and the Department for Development and Cooperation asked Uta Lenzlinger to film Hans Rudolf Herren and his work. Her documentary provides a vivid insight into the work of Herr Herren and the commitment of the eco-trainers. You can buy the video (in German) from atv-TvO-Production. Tel. +43-557231026, or by e-mail: [atvassmann@aon.at](mailto:atvassmann@aon.at) Teachers can obtain teaching aids from Swiss Television SFDRS at [www.schulfernsehen.ch/zusatzmaterial](http://www.schulfernsehen.ch/zusatzmaterial)



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Thanks to your help, Biovision has been able to start up and achieve environmentally friendly projects. We hope to be able to count on you again. We are truly grateful for your gifts. PC Account 87-408333-2