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AFRICA

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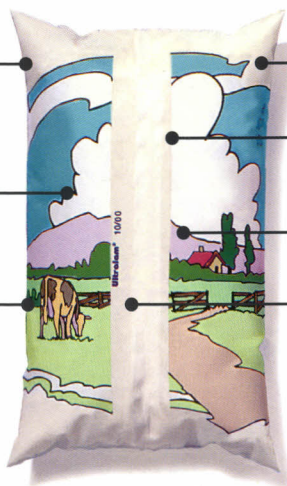
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Editor's note

Every minute of every day, somewhere in the world, 21 children die of malnutrition and preventable diseases. It is a given fact that sustainable school milk programmes can help alleviate hunger, while at the same time building a future consumer base. The debate still rages on as to how a country should go about establishing a sustainable school feeding programme. However, one undisputed fact remains: cooperation is pivotal. In fact, it is the only way forward.

In 2005, Uganda hosted the first Eastern and Southern African School Milk Conference. Here, the notion was reaffirmed that the success of school milk programmes relies on various role players who work together towards one common goal.

The South African Milk Producers' Organisation (MPO), in cooperation with the United Nations Food and Agricultural Organisation (FAO), recently hosted the Fourth International School Milk Conference in South Africa's Cape Province from 6-8 November 2006. Here, it became evident that discussions on how to initiate and facilitate sustainable school milk programmes in the region, have delivered few successes. The way forward for school milk on the African continent remains an open debate.

The next edition of *Dairy Mail Africa* will almost exclusively focus on the future of school milk in the continent. As a precursor to the school milk edition, Dr Michael Griffin from the FAO discusses important issues surrounding school milk programmes.

As the year draws to a close, we reminisce about the past and hope for a better future. My wish for 2007 is that the African dairy industry will experience unparalleled growth and development. With these positive prospects in mind, read how the East African dairy community plans to expand its industry by joining hands and working towards the same goal.



In the spirit of cooperation, this edition of *Dairy Mail Africa* features a discussion on the cooperative structure as a business model. Sit back and relax as Todd Thompson, Land O'Lakes country manager in Uganda, gives a brief history of this well-known structure. More importantly, he takes a look at the exact nature of cooperatives and the reasons for forming one.

In the focus on smallholder development read about women's role in agriculture, how breed evaluation helped improve the Zambian dairy cattle industry, and how the Keyline irrigation system is helping dairy farmers in Africa's Cattle Corridor.

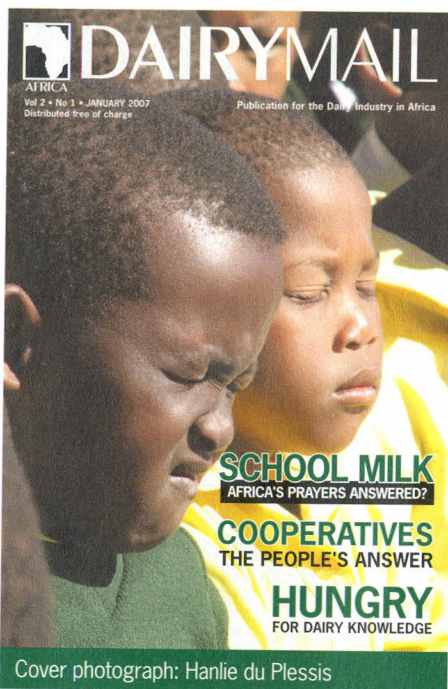
Happy dairying in 2007!

Karien Slabbert
Editor: South African Development Community (SADC)

Dairy Mail Africa wishes to thank its loyal readers and advertisers for their support in 2006. May 2007 be filled with opportunity and well-deserved growth.



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Cover photograph: Hanlie du Plessis

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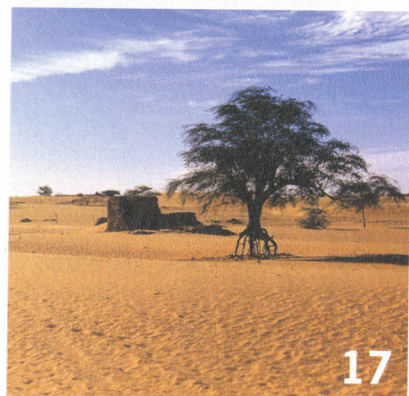
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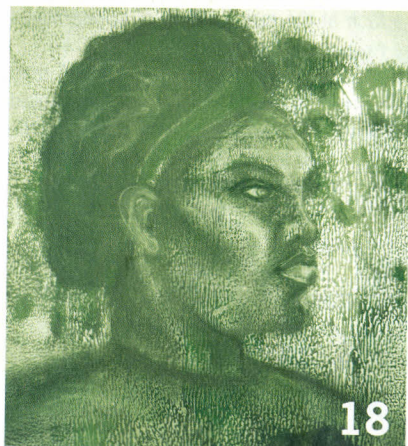
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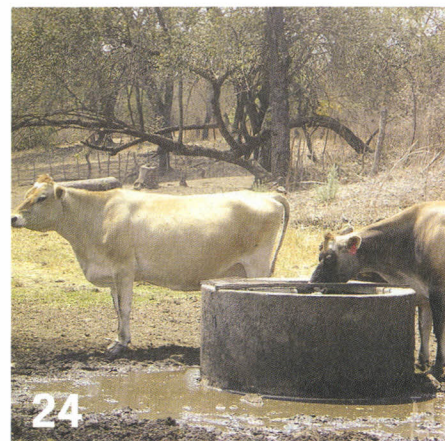
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- Jembas – Angola
- Parmalat – Zambia

From the Esada secretariat

Dairy farming has great potential to improve food security and welfare in the Common Market for Eastern and Southern Africa (Comesa) and the East Africa Community (EAC). Recent analysis provides clear evidence of an increased demand for dairy and animal products in sub-Saharan Africa and other developing regions of the world. This is because of rapid population growth, urbanisation and increased buying power.

The analysis estimated that, between 1993 and 2020, developing countries' annual demand for milk and dairy products will grow between 3,2-3,5% annually. This implies that demand will more than double from 168 million tons in 1993 to about 400 million tons in 2020. As milk production is currently estimated at only 200 million metric tons, this poses a formidable challenge. Current milk production in Comesa and the EAC is estimated at only 12 million metric tons per year, whereas the demand is 14 million metric tons.

Demand for milk is also expected to increase, from the current average *per capita* consumption of 36 litres per year, to at least 90 litres per year attained by the highest milk-consuming Comesa country, Mauritius.

Esada recently retreated to Lusaka, Zambia, to deliberate on its future direction. The need for a strategic review arose due to key stakeholders' high demand for Esada services. The Esada board also launched the third African Dairy Conference and Exhibition (ADC&E III). It will be held in Zambia from 16-18 May 2007. The Conference will focus on technology and investment with a special focus on Zambia.

Esada was established to promote initiatives in the dairy industry, provide a variety of services to its members, and contribute towards shaping the policy environment for trade in dairy products. It has actively engaged in advocacy issues by bringing the various stakeholders at national and regional level in an exchange and dialogue to understand the issues, identify hotspots and find strategies and options to address issues of dairy trade, health, safety and quality.

Esada will require networks of policy makers, academics, non-governmental organi-

sations, donor agencies and experts working on a common platform to exchange and share experiences and best practices. Esada seeks to incorporate knowledge management geared towards enhancing organisational effectiveness, translating to vitality and organisational success. It aims to design knowledge structures that emphasise human capital and structural capital outlines. Policy proposals and advocacy exchange must be based on proven science and knowledge that the stakeholders have acquired in the process of operations.

Knowledge management will be aligned with business strategy to create a well-balanced mix of technology, cultural change, new reward systems and business focus. The organisation will focus on avenues of knowledge management which will be the association's "pillars of excellence". It is reviewing areas such as global competitiveness in dairy trade, quality standards, leadership and corporate governance.

Esada's broad mandate is to be the premier association internationally recognised for excellence, responsiveness, professionalism, and proactive advocacy and promotion of health, safety and quality in Africa's dairy sector.

The board believes the new strategy will promote and advocate efficient and effective means of achieving quality standards in Africa's dairy sector through innovative technologies and knowledge sharing, focused on market developments and capacity building while caring for customers' social and environmental responsiveness.

Dr Kipkirui Arap Lang'at
Executive Director – Esada DMA

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Briefly | Africa

Sameer UHT and powder milk plant

The Sameer Group of Kenya reportedly plans to construct an \$8,5 million ultra-high temperature (UHT) and powder milk plant in the Ugandan district, Mbarara, to solve the problem of milk wastage. The new plant is set to produce 80 000 litres of UHT and 100 000 litres of powder milk.

The Ugandan Parliament is currently investigating how the Ugandan Dairy Corporation (UDC) was leased to the Sameer Group without the necessary documents, including a business plan, being made available. The Ugandan Government and the Sameer Group signed a ten-year lease agreement in June 2006. Sameer Agriculture and Livestock (SALL) took control of UDC's assets in August. Under the deal, SALL is to pay \$500 000 for UDC and invest \$2 million in the plant. The company will spend another \$8,5 million on building the new factory.

Within the next two to three years, milk production in Uganda is expected to reach 200 000 litres a day, from the current 30 000-60 000 litres per day. Meanwhile, the Ugandan Dairy Corporation's milk production has increased from 25 000 to 52 000 litres daily. – *Food and Beverage Reporter*

Zimbabwe Dairibord boss arrested

Dairibord Zimbabwe Limited managing director, Benson Samudzimu, was recently arrested for arbitrarily increasing milk prices without authority from the Ministry of Industry and International Trade. Police confirmed that they arrested the Samudzimu. Police spokesman Chief Inspector Andrew Phiri said he was charged with contravening regulations that deal with increasing prices of goods without the authority of the Ministry of Industry and International Trade. The spokesman, however, could not give much detail on the price increases allegedly made by the Samudzimu.

Phiri said police had their surveillance teams in place, which monitored all prices in stores countrywide. This move by government is aimed at curtailing unwarranted prices. The

exercise was also necessitated by the general outcry from the consumers regarding overpriced items. Phiri said that 600 companies had been ticketed to date. – *The Herald*

Farmers need the Internet

William Metzger, the director of London-based International Business Concepts, says farmers in Africa need to adapt to using the Internet. He says it is the only way forward for their development in this information era: "Through the Internet, farmers would instantly access information about crop diseases, resistant varieties and prevention measures, which results in good yields. They would also know about the prevailing market conditions," he said.

Metzger recently presented a paper with the theme "Information Technology for Development" during a seminar organised by the Ugandan-based Information and Communications Technology Association (ICTA). Charles Basajja, the chairman of ICTA, said they are lobbying government to establish Internet hot-spots all over Uganda for people to access it. – *New Vision*

Zim minister admits food shortage

The Zimbabwean government has admitted to suffering a food shortage, *Zim Online* reported. It quoted Joseph Made, the agriculture minister, as saying the country did not harvest enough food last season and that an army-led programme to produce food, had failed. "The country has already imported maize to cater for the deficit. We will continue to import food if the need arises," said Made. The government has until recently insisted that Zimbabwe harvested around 1,8 million tons of the staple maize from the 2005/06 season, enough to meet national consumption.

Maize meal, the main food for more than 90% of the 12 million Zimbabweans, is in short supply especially in southern Matabeleland. Made said Operation Maguta, a scheme under which soldiers were moved onto former white farms to produce crops such as maize and wheat, failed because of lack of resources. – *Sapa*

Ethiopian farmer training centres

Thirteen farmer training centres around Bulehora in the Ethiopian state, Oromia, are ready to open their doors to farmers, the Woreda Rural Development Coordination Office said. Office head, Berriso Zewde, said that his government provided 780 000 birr. The public contributed free labour and material support for the construction of the training centres. Zewde said that two of the training centres have already started operations by receiving 70 farmers. The rest will start service after being equipped with the necessary materials. – *The Ethiopian Herald*

Defence training with a difference

Namibia's largest multi-purpose agricultural co-operative, Agra, recently held a training course for farm workers in conjunction with the Cheetah Conservation Fund (CCF). The CCF is a Namibian non-profit trust dedicated to the long-term survival of the cheetah and its ecosystem. The course taught workers about livestock management and how to resolve conflict with predators. Twenty farm workers from the north-central farm area, attended the course at the CCF headquarters outside Otjivarongo in Namibia. – *The Namibian*

Universities must be more practical

Janet Museveni, the Ugandan first lady and member of parliament for Ruhama County, has urged tertiary institutions to focus on teaching practical agriculture. "I wish all universities in the country could conduct practical agriculture lectures like Mountains of the Moon University, because agriculture means a lot in the lives of Ugandans," she said while addressing students of the University in Fort Portal town. She observed that if agriculture was emphasised at all education levels, government leaders would find fighting poverty, easier. – *The Monitor*

Problems plague Zim agriculture ministry

The Zimbabwean Ministry of Agriculture is at its weakest to deliver due to under-funding, high staff turnover and internal expansion without replacement of workers. Simon Pazvakavambwa, the Ministry's permanent secretary, said there had been no recruitment of staff to meet the current expansion drive due to a freeze imposed by the state. The Ministry has no resources for most of its activities due to under-funding.

Pazvakavambwa recently presented this evidence to the parliamentary portfolio committee on land, land reform, resettlement and agriculture. He said that when he joined the ministry last year, restructuring was underway. New departments were created without extra personnel being brought in. Some employees were quitting out of frustration. He stopped some of the restructuring processes, as the Public Service Commission had frozen recruitment of staff. – *The Zimbabwean Herald*

Uganda to modernise agriculture

The Ugandan-based Plan for Modernisation of Agriculture (PMA), has launched a three-month sh50 million media campaign in the country's Luweero district. The campaign is supported by the Danish International Development Agency's agriculture sector programme support. The theme is "Working together, earning higher incomes." At the launch at Luweero district playground, state minister for gender and culture, Lukia Nakadama, said that the key message in the campaign is to remind women to support each other in order to create wealth. – *New Vision*

Millions could starve

The food shortage crisis in three Southern African countries is far from over. The United Nations World Food Programme (WFP) has appealed for \$78 million to provide emergency aid to millions of people. "We had hoped to scale back our activities in 2005 following two massive regional aid operations over the past two years, but unfortunately the crisis in parts of Southern Africa is far from over," the WFP said in Johannesburg. "Early next year, the lives of almost two million people will be at risk."

Mike Sackett, WFP regional director, said the money was needed to provide emergency aid to 1,85 million people in Lesotho, Malawi and Swaziland in the first half of next year. The three countries suffered extremely poor harvests this year due to drought and the effects of poverty and HIV/Aids.

Malawi's cereal crop was estimated to be 17% less than the five-year average. In Lesotho, the 2003 winter harvest failed, and improved rains early this year came too late to save the maize crop, which was estimated to be 68% below the average. Lowveld areas in Swaziland

were hit by both a late start of the rainy season and below normal rainfall. That country's maize crop was estimated to be 30% less than the average.

Sackett said WFP would also assist thousands of other "chronically poor and food-insecure" people in these three countries, as well as in Zambia and Mozambique as part of a longer term operation. This programme would run for three years. – *Sapa*

Livestock minister visits Namibia

Tanzania's Minister of Livestock Development, Dr Shukuru Kawambwa, and his delegation recently visited Namibia on a fact-finding mission and to discuss matters of mutual interest especially in relation to livestock and animal health. He is being hosted by his Namibian counterpart, Dr Nickey lyambo.

Among others, the delegation visited the government veterinary laboratory, the Neudamm Agricultural College and a resettlement farm in the Dorbabis area. The party also toured Namibia Dairies and experienced a stud auction at a farm in Lichtenstein West.

Namibia and Tanzania have had some excellent relationships dating back many years. Tanzania's livestock industry is well-known, with the Masai people forming the bulk of communal farmers in that country. It is expected that the two countries will benefit from each other's experiences, especially now that the land reform process is well under way. – *New Era*

Angola discusses rural women

The fourth Provincial Forum on Rural Women in Angola's central Benguela, was recently held to discuss pressing matters that face rural women. The two-day meeting was part of the celebrations for World Rural Women's Day celebrated on 15 October.

The meeting comprised four panels, namely "Economic promotion of rural women", "Communitarian development", "Added competence in rural families" and "Rural women and ecological challenge". The celebration programme started in early October and included several activities such as environmental education campaigns, tree planting, fund-raising and donations to needy communities. – *Angola Press Agency DMA*

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Esada News

by Moses Nyabila, technical advisor for the Eastern and Southern African Dairy Association (Esada)

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East Africa cheese championships

South African-based agricultural organisation, Agri-Expo, joined hands with the Eastern and Southern African Dairy Association (Esada) to stage the first Esada cheese championships at the end of August 2006. The championships coincided with the Premier East African Cheese Festival that was held at the Carnivore grounds in Nairobi, Kenya.

An encouraging 62 cheeses in 27 different classes were entered in the competition. Kobus Mulder, Agri-Expo's manager for dairy and an international cheese judge, acted as organiser and judge. He was assisted by three dairy officers from the Land O'Lakes programme.

The winners of the various categories included Sun Power Dairy, Eldoville, New Kenya Cooperative Creameries, Raka, Valley Dairy and Gouda Gold of Uganda. The overall winner was Sun Power Dairy. Their Brown's Haloumi was crowned best cheese on show. It scored 17,5 out of 20 points. In addition, they also won eleven other first prizes.

Exhibitors were briefed on defects and correctional measures during the prize-giving ceremony. Judging from the cheese makers' response, an improvement can be expected at the 2007 championships.

The appearance of most cheeses was of an acceptable to a high standard. However, a fair amount of improvement is necessary to the body and texture of the cheeses. These defects can be eliminated by paying attention to milk quality, pressing and moisture controls. Many cheeses had an acid flavour which can be corrected by improving culture selection and use.

Renewed interest in cheese

With a *per capita* consumption of around 100 grams of cheese, Kenya has the potential to grow a blossoming cheese industry. However,

it needs the necessary promotional activities and improved quality. Enough milk is available for cheese production. Only a fraction of the estimated annual milk production of three billion litres is processed into cheese. A survey among chefs and other catering operations showed a willingness to use more cheese in recipes and dishes once a wider variety of good-quality products are available.

“With a per capita consumption of around 100 grams of cheese, Kenya has the potential to grow a blossoming cheese industry”

The future

During the Cheese Festival a number of local cheeseries were visited. Here constructive discussions took place regarding production and supply chain improvements. Retail outlets were also visited to discuss display and merchandising methods to improve sales. Training of local cheese makers will assist the local industry. Agri-Expo has been asked to play a meaningful role in this regard.

Esada and Kenyan cheese companies were encouraged by the outcome of the Premier East African Cheese Festival. Esada is considering making the Festival part of its annual calendar. It also plans to expand the concept to a number of towns and cities across the African continent.

Esada and its affiliate national associations are in the process of compiling and elaborating on cheese promotion and development programmes. This will include consumer education, cooking demonstrations, sampling, in-store promotions, skills development and investment promotion. Esada hopes that this will lead to increased consumption and production of cheese, as it is currently lagging far behind other regions. **DMA**

Cooperatives: by the people, for the people

by Todd Thompson, country manager, Land O'Lakes Inc, Uganda

The principal of cooperating to better one's life, has been around since man first existed. It did not take early man long to figure out that by cooperating, they would increase their chances in the areas of hunting, fishing, food gathering and protecting one another from wild animals and other dangers.

Formal cooperatives first began to appear during the Industrial Revolution. People moved from their farms into the cities and had to rely on stores for their food. Early cooperatives were set up to help address these issues. One of the first cooperatives in the United States was established by the great American Benjamin Franklin in 1752, to protect homes against loss from fire. It still exists today.



Todd Thompson

The Rochdale Equitable Pioneers Society in Rochdale, England is credited with being the first cooperative. It was established in 1844. What distinguished it from cooperatives before them, was that it came up with a set of operating principles to govern the organisation. Twenty-eight people saved money for over a year and opened a cooperative store to sell butter, sugar, flour and oatmeal. They were also forced to buy candles when the gas company refused to sell them gas. The cooperative then bought candles in bulk to use as lighting and sold the excess to its members.

Although the founding principals of the Rochdale Pioneers are now considered outdated, it remains the basis of the modern cooperative movement. It has been modified over time:

- ▶ Open membership
- ▶ One man, one vote
- ▶ Cash trading
- ▶ Membership education
- ▶ Political and religious neutrality
- ▶ No unusual risk assumption
- ▶ Limited interest on stock
- ▶ Goods sold at regular retail prices
- ▶ Limitation on the number of shares owned
- ▶ Net margins distributed according to patronage.

In many cases, well-managed cooperatives have been instrumental in developing countries, especially in rural areas. While cooperatives

provided agricultural services such as input supplies and marketing, it also provided services and products such as electricity, telephones and credit.

Cooperatives have a long history of providing people with a business structure so that they can obtain the benefits needed to improve their lives. If started for the right reasons and managed properly, cooperatives can and still do work. Even in the 21st century, this principle still applies.

What is a cooperative?

A cooperative is a business that is owned and controlled by the people who use it. The primary purpose of a cooperative is to provide goods and/or services to its members for their mutual benefit. Some business goals in forming a cooperative are to:

- ▶ Increase bargaining power
- ▶ Share costs
- ▶ Obtain a new service
- ▶ Purchase in bulk
- ▶ Gain access to new markets
- ▶ Increase income
- ▶ Secure credit
- ▶ Achieve economies of scale or size
- ▶ Add value to agricultural commodities
- ▶ Reduce risk.

Cooperative business structure

Three main characteristics of cooperatives distinguish them from other business forms. They:

- ▶ Are member-owned
- ▶ Are member-controlled
- ▶ Provide member benefits.

Cooperatives are a business-type option that, depending on the goals of the business, may or may not be the correct option. In most countries these business options are sole proprietorship, partnership, corporation, a limited liability corporation and a cooperative. Depending on the circumstances of the business, one of these business types will be the correct one to choose.

Steps in cooperative development

The cooperative must go through various steps in order to be successful. Most steps are similar to the ones taken in starting any new business. The following is a short synopsis of the steps involved in forming a cooperative. If you decide to start a cooperative, look for outside help and assistance.

Step 1 – Recognise a need or opportunity

An individual or a few people recognise an opportunity. This might be the lack of a market for a product or a lack of necessary supplies and services. Through mutual action, this opportunity can be fulfilled through a cooperative.

Step 2 – Hold an organising meeting and establish a steering committee

The core group holds an informational meeting with other potential members and explain their idea. It is important that the group comes to an agreement on the nature and importance of the project. Such an agreement will become the shared vision of the group. A steering committee needs to be formed to coordinate activities on behalf of the group. Committee members must put in the time necessary to research the feasibility of the cooperative and provide initial leadership.

Step 3 – Conduct a feasibility study

The steering committee can either conduct a feasibility study themselves or hire a consultant to carry out the study. The purpose is to examine critical opportunities and obstacles that might make or break the proposed cooperative. The study should analyse the number and interest level of potential members, as well as critical market issues. If insurmountable obstacles are discovered, the development of the cooperative should be abandoned or shelved before too much time and money has been expended. Contributions by potential members often cover the cost of a feasibility study.

Step 4 – Report on the feasibility study

The steering committee conducts a meeting with the potential cooperative members to report on the results of the study. It will show whether or not the cooperative could be viable.

Step 5 – Legal issues

Once it has been determined that the cooperative is feasible, the cooperative should file the necessary documents to become a legal entity. Basic bylaws which dictate how the cooperative will operate, should also be prepared at this time. The bylaws can be changed once the business plan is prepared.

Step 6 – Prepare a business plan

A business plan provides a blueprint for the development and initial operation of the cooperative. It also provides supporting documentation for potential members, financial institutions and other investors. Often a steering committee will want to prepare a business plan itself. It is often wise to hire a professional firm to prepare the business plan with the involvement of the steering committee or future cooperative members. The start-up cooperative should be involved in this process, so that the consulting firm fully understands what the cooperative's goals are.

Step 7 – Secure financing

The amount and type of financing necessary to begin operating will vary from cooperative to cooperative. The business plan should include the type and amount of financing necessary to begin operations and the strategy for obtaining it. Essentially all cooperatives will require some type of member financing, usually in the form of membership fees or stock purchases. This provides equity for the cooperative, and makes the attraction of other capital easier. Without member commitment, financial institutions will not provide additional capital.

Step 8 – Recruit members

Recruitment can occur through formal meetings or members recruiting other members on their own initiative. The steering committee should prepare a membership application for new members to fill out and sign. However, until someone is willing to pay their membership dues, the cooperative is still just a concept. If sufficient membership cannot be found to provide the necessary equity, the cooperative will not be able to proceed.

Step 9 – Hire management

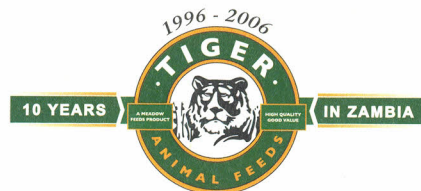
Now that the cooperative is ready to commence, it is time for hire management. It is very important to hire the correct key personnel. If possible, hire those with prior experience in working in a cooperative.

Step 10 – First membership and board meetings

If the cooperative has sufficient membership and financing to proceed, they then will hold their first general membership meeting. The two most important functions of this meeting are to adopt the cooperative bylaws and elect a board of directors for the cooperative. This meeting marks the transition from a steering committee and interim leadership group, to a formally elected board and legally approved bylaws. Those who were part of the steering committee are not automatically people who should be on the board.

Step 11 – Begin operations

During the initial phase of the cooperative's start-up, management should adhere to the business plan. It is important to have excellent communication between the staff, board and members. A strong cooperative is built on a foundation of involved members. Without an active base of members who are willing to work towards the success of the cooperative, the cooperative is bound to fail. **DMA**



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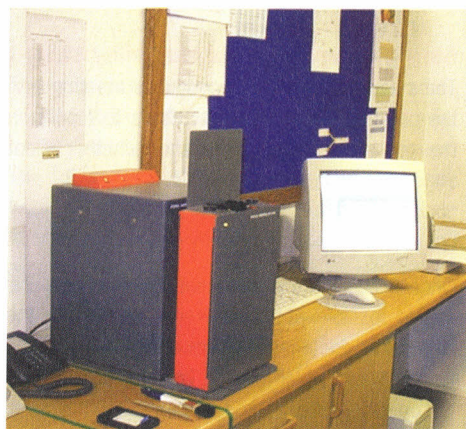
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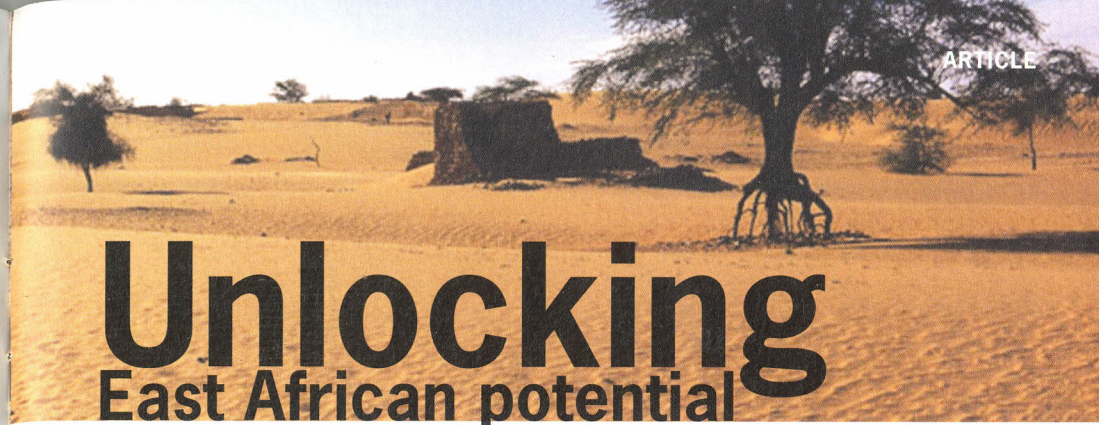
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Unlocking East African potential

by Michael Baingana

The Ugandan-based Amate Gaitu Cooperative recently held a dairy business workshop on the East African Community Trade and Production Programme at the Lake View Hotel in Mbarara, Uganda. The workshop's objective was to present proposals for new innovations and partnerships designed to unlock the potential of the Ugandan dairy sector, enabling it to compete in the emerging East African market. The workshop's theme was "Unlocking the potential of our dairy industry".

Workshop attendants agreed to create a new, more efficient dairy value chain through a partnership between processors, milk transporters, farm input suppliers and farmers of Amate Gaitu. This value chain will be operated by the Agriserve platform, a new web-based information system that *Dairy Mail Africa* reported on in the previous edition.

The Global Standards and Surveillance Bureau, a firm of local standards professionals, and the Makerere University departments of Agriculture, English, Veterinary Public Health and Preventive Medicine, as well as the Department of Information and Communication Technology will lend their support in terms of training, extension and dairy farm planning. The heads of these departments all attended the workshop in person.

The new value chain will be projected in the dairy market through a new dairy brand named Amate Gaitu Cooperative, which will be launched in February 2007. The brand is farmer-owned. The main objective of the new value chain is to maximise the farmgate price of milk and to give maximum support to the dairy farmer to enable commercial production.

The first product will be high-quality fresh milk that will be sold in Uganda's Mbarara district. A number of farmers were earmarked for the pilot phase that will see the daily processing of about 6 000 litres of milk.

Another key difference with the new system is that, for the first time in Uganda's dairy history, farmers will have milking parlours and milk bulking tanks on the farm – not at some remote collection point. This will greatly support raw milk hygiene. It will also decisively change the face of dairying in Uganda. This is real commercial dairying being introduced.

The Ugandan Government recently gave dairy traders an ultimatum to cease the sale of raw milk by the end of December. Thus the workshop resolutions are well-timed. Presentations included:

- ▶ Value chain remodelling discussed by Swedish business consultants Lenart Bangens and Bjorn Dryselius of Spintrak AB
- ▶ Keyline methods for farm planning addressed by Brad Warren, a farm land management expert from Australia
- ▶ Coverage of the Agriserve integrated information platform to commercialise dairy production.

The Ugandan Minister of State for Financial Planning, Omwony Ojwok, also attended the Conference. Government promised its support. It was decided that the Amate Gaitu dairy business conference and exhibition will become an annual event. **DMA**

Zehia Bouzouita, Tunisia

Zehia Bouzouita is a 58-year-old farmer, born and raised in the scorching Tunisian Sahara where the blazing African sun leaves the land dry and fallow. Bouzouita works for the Tunisian Agricultural and Fishing Union in her capacity as secretary-general of the National Federation of Biological Agriculture. She is married with three sons and two daughters.

Bouzouita inherited her love for agriculture – especially olive trees – from her father. She believes that the most important ingredient for success, is to work without respite “and to believe in one’s potential to win the challenge”. She decided to study in the electrical industry to manage her small electrical company more efficiently. In 1991, after her husband suffered from ill health, she found herself having to cope with a large abandoned farm in southern Tunisia – a region famous for its century-old olive trees and dry desert planes.

“In the poorest countries, rural women produce a very large proportion of the food. They are therefore right on the front-line in fighting these problems”

As a female farmer, Bouzouita faced several obstacles, such as the state of the fallow land and the impoverished soil. “Furthermore, the equipment was in a very poor condition and the trees had been drastically pruned,” she says. The region had also suffered a long drought. “Restricted financial resources, together with the difficulty of supervising workers who refused to be directed by a woman, also marked this phase,” she notes.

Despite all these difficulties, Bouzouita persisted. She decided to introduce a number of agricultural innovations to her area. With this objective in mind, she drew up a comprehensive farming programme. It included winning the trust of farm workers; making the equipment operational again; finding the necessary funds and improving the plantations with other varieties of olive and almond trees.

In 2001 she turned her attention to biological agriculture – a new agricultural niche Tunisia adopted in April 1999. In the same year, she also managed to fulfil her childhood dream by giving

Unlike their more glamorous urban counterparts, rural women are often the ambassadors of hunger and suffering. Millions of women around the world bear witness to extreme poverty. They are often left to fend for themselves. Many of these women live in the extensive rural areas of Africa.

As they plough fields, look after cattle, milk cows and care for their families, they continue to contribute to household food security. Despite this, their concerns often go unheard. These women have been systematically excluded from owning property – whether it is land, a home, a business or even their own children.

Karin Serres, President of the International Federation for Agricultural Producers’ (Ifap) Committee of Women Farmers, reiterates this fact. She notes that hunger and malnutrition still hounds too many countries: “In the poorest countries, rural women produce a very large proportion of the food. They are therefore right on the front-line in fighting these problems.”

She questions whether these women ever get a much-needed opportunity to voice their opinions: “Are they listened to? Are their demands for access to land, credit, seeds and tools acknowledged?”

The challenges that women around the world face, are in more ways than one mutual and interlinked. Throughout history women have fought to be viewed as equal partners, to have the same access to jobs, information and credit. The list is endless. Feminists have managed to place women’s rights on the public agenda. Despite a few hiccups, urban women now enjoy more freedom because of this. Although rural women need not follow the same path, they should demand the attention they deserve.

World Rural Women’s Day was celebrated on 15 October. Karien Slabbert traces the experiences of three female farmers, two from Africa and one from South America. Zehia Bouzouita from Tunisia, Nibia Olid from Uruguay and Addo Comfort from Ghana have managed to become leaders at local, regional and national levels, despite many obstacles.

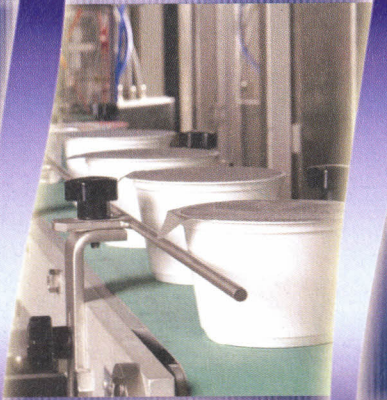
A world apart

by Karien Slabbert

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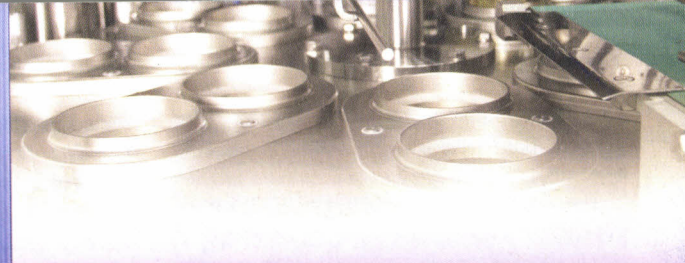
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her family name to the farm. It is now known as Domaine Bouzouita, an estate spread over 500 ha of land.

Her farm boasts the famous Chemlali olive trees, which have earned the biological agriculture certification, EcoCoert, in 2001. She proudly notes: "Today, olives, cereals, fruit cultivated for drying, spices and citrus fruit grow in a subtle symbiosis between technological innovations and traditional agricultural methods."

As secretary-general of her country's National Federation of Biological Agriculture, Bouzouita feels compelled to serve as a role model to ensure that "other high-level positions are entrusted to women". Bouzouita now enjoys the support of her male counterparts. They have realised that she is more than capable of fulfilling their objectives, she says proudly.

Nibia Olid, Uruguay

"The story of my life as a rural woman is marked by memories and experiences of my childhood. I come from a family of humble origins from the Velazquez region in the Rocha district in Uruguay." As with many rural children, Nibia Olid did not have a glamorous childhood. "We lived modestly and with major difficulties," she recalls. From a very young age, she was expected to do her share of family chores.

As a young girl, she attended a rural school in the area. She later left her parents' remote home to pursue a further education. Yet she was always linked to rural activities: "I liked bringing together groups of people who defended the activities of small farmers."

Later in life her love for information and people inspired her to become a teacher. She worked for a married couple of physicians who had founded a residential home for students. "There I donated my time as a volunteer working with young rural farmers who came from the most remote areas," she recalls.

However, life was not easy. The team worked tirelessly to pay for the supplies needed to sustain the farmer support project. While some people would have found this disheartening, Olid, who has

worked hard her entire life, found this experience rewarding. "If you sow, you shall harvest and if you harvest, you shall eat," she notes.

In 1986, Olid joined the Uruguayan Rural Women's Association (Amru). "At that time, I cultivated and processed fruits and vegetables. I was also part of a group of craftswomen." This managed to stand the test of time. "Even today, we continue working together," she notes.

Around that time, she convinced her husband to sell their goods at a fair in La Paloma, a holiday resort in her district. "During the day, I sold corn, going from one house to the next with a basket and at night I marketed my products at the crafts fair," she says. In 2000, she started playing a more active role in Amru. As a district representative, she organised courses, workshops, tours and exchanges. She also worked closely with rural women living in the poorest and most remote areas, trying to offer her support so they could overcome their difficulties.

She was later elected as Amru's chairperson. She says that more rural women join the association every day. They now have more tools at their disposal to do their jobs. Better training and education enables them to voice their opinions. They are also well-equipped to negotiate with other organisations and political stakeholders.

She has survived the harshness of rural life. She recalls feeling useless and relegated as a rural woman in society. "Nevertheless, I have lived through it. Amru has made me stronger, with the exchange of experiences and with the tools to face reality and to be able to look for solutions for the small rural family."

Addo Comfort, Ghana

Although illiteracy and poverty is rife throughout the developing world, all women can use their unique talents and knowledge to help develop their communities. On this topic, Addo Comfort, a fish-monger and tomato producer from Ghana, notes: "Some people are born with the quality of a leader."

However, others acquire this quality through hard work and perseverance, she says. Then

there are those who are expected to have this quality, as they are queens of a clan, town or village. Queen mothers and village leaders often support chiefs in making important decisions. Comfort firmly believes that each one of these women play an important role in helping develop rural women's quality of life.

"Better training and education enables them to voice their opinions. They are also well-equipped to negotiate with other organisations and political stakeholders"

The South African Foreign Affairs Minister, Nkosazana Dlamini Zuma, recently addressed a three-day conference to discuss the involvement of women in agriculture and rural development. She noted that Africa – and the rest of the world – can never realise its fullest potential until women are placed at the centre of development.

She encouraged African women to network among themselves, in communities, with other women's organisations on the continent and beyond, "in an effort to speak in one voice on issues and programmes affecting their lives."

South African Congress for Rural Women

South Africa will host the 4th World Congress on Rural Women in April next year. South African government spokesperson, James Maseko, said the Congress would go a long way towards advancing the cause of rural women, particularly in the developing world. The Congress aims to provide a global perspective of issues confronting women in the world's rural areas, with a wide cross-section of speakers making presentations on diverse issues. For further information contact Noncenco Vulula at +27 12 319 7291 or Steve Galane at +27 83 635 7346 or visit www.nda.agric.za DMA



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Excellent cows with good dairy form on the Combrinck farm near Livingstone. These animals are originally from the Free State in South Africa

Hungry for dairy knowledge

by Annelize Smit, Jersey SA

I was recently invited by Land O'Lakes to spend time in Zambia together with Wikus Taljaard of Taurus. Our host was David Harvey, technical advisor of Land O'Lakes Inc in Zambia. The aim of our visit was, on the one hand, to form an idea of Land O'Lakes' activities in Zambia.

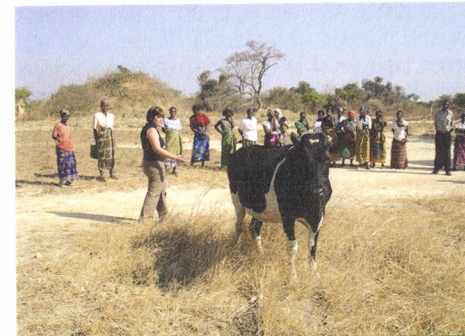
On the other hand we wanted to determine how Jersey SA can contribute towards supporting the Jersey breed in the rest of Africa.

From day one I saw only beautiful Jerseys. Our first visit was to Dave Harvey and his herd of about 20 cattle. He milks by hand and has no more than ten cows-in-milk.

Our visit to GART, a training institute/experimental farm situated between Lusaka and Kabwe, was very revealing. The institute is managed very professionally and everything on the farm is painfully neat. The Jerseys were of good quality with good dairy form – perhaps slightly narrow-chested, but

with good capacity and udders. Hind udder height could be slightly better, but for an 18 kg parlour average, these cows presented well and possess great potential. These animals graze on a semi TMR-system. Their calf-rearing also caught my attention. I haven't seen so many healthy calves together in a very long time!

At GART we talked to Dr Stephen Muliokela about training and the need to transfer knowledge to emerging as well as commercial farmers. Emphasis was also placed on the fact that an institution such as GART must set an example from which others can learn.



The author explains linear characteristics and classification to a group of emerging farmers at Masopo in the south



Training day at Murrayfield Farms in Lusaka. Emerging farmers and students from the Palabana Dairy Institute attend the day

Our next stop was the Jersey farm of Dave and Bungy Combrinck near Livingstone in the south. Their herd was originally built up from that of Dudley Meyer of Bethlehem in the Free State. The Combrinck's commercial herd consists of good quality Jerseys. The cows are big and strong with good dairy form, body depth, and good feet and legs. The udders are good and fairly well-attached, sufficient for the environment and the type of production required by the farmer. They could, however, give more attention to udders.

Production varies between 16-22 kg parlour average in a TMR-system. They produce their own roughage. There is less emphasis on production – the latter is determined by the demand for milk or the volumes they are capable of packaging. Artificial insemination (AI) is strongly emphasised and applied in both commercial herds as well as the herds of emerging farmers in the vicinity.

Two Holstein herds were also visited. The first was that of Sharon Cook in Lusaka. There we came upon a cow who is currently in her twelfth lactation. We then moved on to Nick Becket at Choma. He milks 80 black-and-white cows by hand and packages the milk himself. His parlour average is 23 litres.

Emerging farmers

We also visited some of the emerging farmers being trained and managed by Land O'Lakes. Farmers are identified throughout Zambia and

those who meet the Land O'Lakes requirements, are then trained for a period of some eight months. Training includes milk cow housing, illnesses and treatment, general management, including calf-rearing, and nutrition.

David Harvey and Dr Johns Nyirongo are two of the people who visit these farmers on a monthly basis and help with training. Each group comprises some 35-60 farmers. A lady in charge does the interpreting and arranges meetings. They hold regular get-togethers and are continuously evaluated and trained. As soon as a farmer "graduates" after eight months, he or she can buy a pregnant heifer from Land O'Lakes. If the animal is not well-looked after, it is removed and placed with the next qualifying family.

As soon as a heifer calves, the calf is moved to the next family in line. Bull calves are castrated and the owner may keep it. Oxen may be sold or used as draught oxen. Some projects have progressed much further – more than 280 farmers in Magoye deliver milk to a milk station run by themselves. They have a 3 500 litre tank which supplies to a milk buyer every second day. Milk recording is also done with regard to the bulk tank, and in this way farmers are paid on the basis of butterfat percentages and bacterial counts. Some of the farmers in a group are also trained in AI. He will be approached by his fellow farmers to inseminate cows. In this way he earns an income within the scheme.

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In Kitwe, 450 km north of Lusaka, we were warmly received with traditional dances, beer and lunch. I was struck by the respect shown for women. We saw some excellent animals. After being in the ownership of the farmers for about five months, the animals looked exceptionally well.

Re-orientation

In Masopo Alice told us that this area has about 52 emerging farmers. The group was used to World Vision handing out free food to the community. It was a challenge to re-orientate these people to work for their food and to become self-sufficient. They were trained in nutrition, housing, health and conservation. Another challenge was convincing them to move away from the traditional way of farming towards a zero grazing system.

Two of the requirements are that farmers have to attend every meeting and that 30% of the members have to be women. This group of farmers attended their first show in Lusaka and are planning to show some of their own animals in future.

Murrayfield

In Lusaka we attended a training day at Murrayfield Farms together with emerging farmers and students of the Palabana Dairy Institute. A certain Dr Zuma addressed them on the subject of nutrition and we told them more about classification, selection and AI. We specifically emphasised the linear characteristics that we look for in the Jersey breed, and how it correlates with production.

Our main aim was to tell them more about what to look for in a dairy animal, which characteristics are important and what the ideal is. Their interest and appreciation was amazing! Wikus Taljaard concentrated on the benefits linked to AI. In Zambia the traditional use of bulls is still quite common and it is critical for the industry that farmers are persuaded to use AI.

There is a lot of promise just waiting to be developed in Zambia. Farmers are hungry for knowledge and they want to be self-sufficient once again. Jersey SA will visit Zambia again the near future with a view to further training in classification and registration of animals, as well as to assist with record-keeping and data collection. **DMA**



The Keyline irrigation system can help benefit dairy farmers in Africa's Cattle Corridor

The Keyline Plan

by Brad Warren, land management and Keyline Technologies expert. Brad Warren lives in Arusha, northern Tanzania, and has strong links with agriculture and dairying in the area

In 1954, Australian farmer Percival Yeomans published the best-selling *The Keyline Plan*. In this book he explained a means to collect run-off water from hills and its storage in – and distribution from – small to medium-sized dams. This simple system aims to collect all run-off from sloping ground by means of shallow diversion channels.

up on a water course. It can easily be identified as where the convex shape of the land changes to concave. There is usually a flattened area at this point and commonly, centuries of erosion have deposited good clays suitable for dam construction and water-holding.

Water

The water fed into this dam by the distribution channel, is led out over a spillway along a distributor channel to another dam situated in a site less conducive to water collection. In an ideal situation, an area of land can be developed so that all run-off water is collected and held in dams located throughout the property.

Yeomans proposed that all dams be constructed with a lock pipe that runs through the base of the dam which can be opened to provide water for stock and for irrigation. This means that animals can be kept away from the main dam. It avoids the damage and silting that animals always cause.

Water from the lock pipe is led along a shallow channel which is blocked by a simple canvas "flag"

Keyline farming basically involves:

- ▶ The strategic and careful construction of small dams over a wide area of the property
- ▶ The inexpensive collection of water from all land above the dam via collection channels
- ▶ The distribution of overflow from the dam to other dams
- ▶ The provision of lock pipes through the dam wall
- ▶ The distribution of water through a lock pipe via channels for irrigation.

Yeomans refers to a position in a stream running from a ridge as a 'keypoint'. This point is high

This causes the water to overflow the drain along part of its length and flow evenly over the land to be irrigated. This has now become known as the easiest and cheapest method to irrigate pasture.

Ploughing

Yeomans noticed that normal ploughing methods in many cases destroyed soil fertility. He got word of the first chisel plough that was invented in the United States of America, and immediately bought the right to manufacture it in Australia. The "Bunyip" plough became one of the most widely-used implements in Australian agriculture.

Yeomans, and later his sons, went on to devise and manufacture a variety of soil rehabilitation implements that have earned the reputation of being highly effective, strong and durable. The developments caused a revolution in agricultural practice. Heavily degraded land has been brought to deep fertility within the space of two or three years.

Using these ploughs deepens topsoil and powerfully increases soil fertility without the use of fertilisers. It also greatly increases the water-holding capacity of soils. This combination of benefits leads to the drought-proofing of land, and the re-establishment of fertility and dramatic economic benefits.

Tree planting

The Keyline Plan advocates trees on farms to increase the water-holding capacity of the soil, provide land stability and fertility, as well as shade and feed for stock, wildlife habitat, and a host of other benefits. It also embraces agro-forestry. The plan basically involves:

- ▶ The construction of dams and distributor channels
- ▶ Irrigation from the dams
- ▶ Treatment of the land with subsoil ploughs
- ▶ Agro-forestry.

The Cattle Corridor

Eastern Africa's Cattle Corridor is semi-arid with an average of 700 mm rain per year. However, it becomes quite lush and has good grazing after regular rains. The entire region has been heavily compacted by centuries of intense grazing. Water quickly trickles off and is not retained in the soil.

The shallow water retained in the soil quickly evaporates with the heat when the rains end. Within weeks the land becomes parched, but recovers rapidly with every rain storm. Soils vary from white granite with rocky outcrops to rich red soils. The potential for improving soil fertility with simple methods, is high.

For centuries the region has not been treated for weeds. It has taken on serious proportions. In some areas thorny species have completely covered the paddocks. Lantana and non-nutritious clump grasses are so rampant that at least 60% of the land is non-productive. Where clearing has been undertaken, it has been non-methodical and is not followed through. Therefore, weed species reappear immediately.

The region's topography is characterised by rolling hills, with water courses that flow only during, and immediately following, the rains. Some well-located dams have never run dry, although they have been rudimentarily constructed. It appears that the water holding capacity of the soil is good.

Solutions

Local farmers and administrators are looking for any means to overcome the water problems and are searching for all means of water harvesting and efficient use. It is generally believed that as much as possible run-off water from the rains should be collected in small dams. The water is then distributed over a broad area, rather than in one large (and expensive) dam that would by necessity be situated on low ground and would service only those farms beneath it. The problem is how to distribute water over the widest region at the lowest cost.

An initial investigation of the region indicates that it is ideal for a low-cost Keyline project. The area consists mainly of low rolling hills with gentle slopes. Keypoints are easily identifiable and accessible by tractors. Soils are generally good and will respond rapidly to treatment. The clay content is adequate to sustain good drains and water holding in dams. Rainfall is adequate to maintain dams at sufficient levels.

Keyline Technologies will be piloted in Uganda in January 2007 to help develop dairy farms in the region. It will be conducted in collaboration with the Amate Gaitu Cooperative and the Department of Agricultural Engineering. **DMA**



Mauritian milk villages launched

The Mauritian government recently finalised a strategy to increase milk production in the country by 60%. The pilot project will be launched in Nouvelle-Découverte. If it proves successful, six similar "milk villages" will be established to facilitate milk production, collection and sale.

Through this project, led by the Mauritian Food Agricultural Research Council (FARC), the State hopes to increase milk production from 3,2 million litres, to 5 million litres a year. At the moment, the local milk production only represents 2% of Mauritian needs. Although this is far from the 120 million litres consumed, it will at least make the country less dependent on imports.

The main problem at the moment is that farmers use old methods that no longer match today's needs. Moreover, the absence of fodder and the lack of financial help from the authorities, do not help the industry to take off. And this is probably why all similar projects have failed thus far. The country's livestock has plummeted to below 3 000 cows.

Twenty farmers from Nouvelle-Découverte have already formed a cooperative and will adopt modern production methods. In fact, the first objective will be to retain only farmers who show an interest in new and modern techniques for which the state is going to give full support.

It is expected that these farmers will produce 840 000 litres of milk every year with their 200 cows – 4 200 litres each. However, the project will not be limited to Nouvelle-Découverte. Research is being conducted to find five other areas where conditions are favourable for milk production. The authorities know that they will have to buy some land from the private sector.

Creambell Mauritius Private Limited's project in Salazie, is set to use the milk village in Nouvelle-Découverte to create its dairy farm. The company started a partnership with a major milk producer in South Africa. The expertise of this foreign company is expected to help Creambell achieve its objectives. "In the very long-term, we want to absorb the production of all other units in the country and meet the daily

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consumption at 100%," Creambell's manager, Rajiv Sant, revealed. - *L'Express*

Zim desperate to save dairy industry

Zimbabwe imported 100 pregnant heifers from South Africa in July this year, in a desperate move to improve its depressed milk production. It had aimed to import 500 dairy cows, but only managed 100 due to lack of foreign currency.

Dairiboard Zimbabwe Holding said its first batch of cows arrived in the country in July and produced over 11 000 litres of milk in August this year. Busi Chindove, the company's corporate services director, said the cows were imported under the government-initiated "Buy, Operate and Transfer" scheme. The country's milk production has decreased by 60% since the country launched its controversial land reform programme in 2000. - *Farmer's Weekly*

Ethiopian farmers benefit from AI

The Agriculture Development Desk in Hadiya, Ethiopia, says activities are underway to artificially inseminate (AI) 4 000 cows to help the country's dairy industry. The development desk's animal resources development coordinator, Mathias Gebre-Selassie, said that more than 3 000 farmers would benefit from the scheme during this budget year.

The coordinator said professionals and AI equipment have been distributed to six insemination centres. He added that 1 400 improved calf breeds were also delivered by inseminating 2 295 cows last year.

Gebre-Selassie indicated that local cow breeds produced an average of 1,5 litres of milk per day. He said that farmers are becoming more motivated to use AI after learning that artificially inseminated cows can produce up to 5,5 litres of milk per day. The desk is also promoting Borena dairy cows, known for their high milk-yielding potential.

According to Gebre-Selassie, the desk provides services for milk processing centres in Lemo, Misha, Soro and Badwacho with the help of support obtained from the National Animal Resources Development Project. - *The Ethiopian Herald*

More Ugandan beef and milk

Kampala's major abattoirs have seen an increase in beef and milk supply after the Ugandan

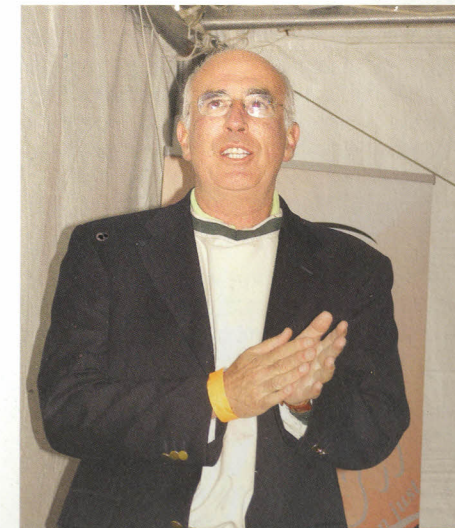
Government relaxed cattle movement restrictions. This has led to a price reduction, a weekly survey by the newspaper, *New Vision*, has shown.

Movement of cattle and cattle-products in western Uganda was restricted in July following an outbreak of foot-and-mouth disease. Western Uganda is the major cattle supplier. "Animal movements in western districts except Kiruhura, have been given the green light. This has increased supply, reducing prices by sh500," Hassan Rashid, a butcher, said.

Rashid said milk supply has also increased. This is despite disagreements between the government and private milk transporters over modalities of transportation. The new development has led to a price reduction of sh500. Fresh milk has dropped from sh1 200 to sh1 000 a litre. Private milk vendors sell a litre at sh500, compared to sh600. - *New Vision*

Reconsider co-ops

Cooperatives can help South African milk producers prosper. As a business model, it is something that they might want to reconsider. This is according to Bob Dever, former vice-president



Bob Dever believes that all farmers - whether in America, South Africa or elsewhere - share the same concerns. He says that cooperatives give farmers more bargaining power

of Land O'Lakes, one of the largest cooperatives in the United States of America (USA).

Like South Africa, processors and supermarkets in the USA have become increasingly larger and more powerful. Dever recently told South African farmers that, although US milk producers can now negotiate better prices for their products, this was not always the case.

Dever was employed by Merick Dairy Cooperative before the company merged with Land O'Lakes. "We were not large enough to negotiate prices and started looking for partners," he said. In the 1990's, the US dairy industry went through a process of restructuring and consolidation. "For this reason cooperatives started merging."

"We consolidated so that we can negotiate from a position of strength." Consolidation also meant that they could negotiate on an equal footing with major processors and retail chains. This helped the US dairy industry to develop, he told farmers. Dever said that in the beginning things were difficult, but that farmers managed to work together. He added that co-ops became an important business model to overcome difficulties.

He said that co-ops are responsible for annually distributing two billion litres of milk in the USA. Land O' Lakes is the third largest co-op in the USA. The company is well-known for its butter brand and owns a third of the US retail butter business. Land O'Lakes is also a major player in the feed and seed industry, as well as a chief marketer of fertiliser and insecticides. – *Karien Slabbert*

Penetrate the market with cooperatives

South African Agriculture and Land Affairs Deputy Minister Dirk du Toit, recently advised emerging farmers to form cooperatives. Du Toit told farmers that this mechanism will help them penetrate the market and become economically competitive. "It is difficult for individual emerging farmers to survive in this industry. This is why it is important for them to form cooperatives to not only penetrate the market, but also be competitive," he said.

The Deputy Minister was speaking during his visit to several land and agrarian reform projects in the Bojanala District of the North West Province in South Africa, to obtain first-hand information about their impact on the local economy.

Most of the farmers complained that they faced challenges with regard to breaking into the market to sell their produce.

Du Toit said although there were challenges in the area as was common across the country, land reform implementation in the North West continued to impact positively on the lives of previously disadvantaged communities. He said land reform provided property for settlement, production as well as securing the rights of the people on land.

The provincial deputy president of the National African Farmers Union, Peter Rammutla, said the emerging farmers should be assisted to obtain technical skills relating to farming. – *BuaNews*

Collapse looms for Namibian dairy

The Namibian dairy industry may collapse within a year if it does not receive protection from government against cheaper dairy imports, local dairy producers have warned. Since 2004, Namibia has faced a massive influx of milk products from South Africa, putting extreme pressure on local dairy producers, according to local press reports.

Only 17 of a previous 25 dairies are still open. Japie Engelbrecht, chairman of the Dairy Producers' Association (DPA), said at its recent annual general meeting that high customs tariffs to Angola and Botswana, are hampering exports and preventing market expansion.

Namibia's only long-life milk production plant, which belongs to the Ohlthaver & List Group, might also have to close down soon, implying 460 job losses. Engelbrecht said the industry had not received any price increases over the past two years. Instead, it has to face a price reduction of 10c/litre for raw milk. – *Food and Beverage Reporter*

Dairy traders petition president

Dairy traders in Uganda have petitioned the country's President, Yoweri Museveni, to intervene in what they called "unfair ban of unprocessed milk in urban areas". This follows a directive from the Animal Husbandry State Minister, Bright Rwamirama, giving milk vendors to December 2006 to start processing milk for sale or quit the business. More than 100 000 milk traders throughout the country will be affected by this crack-down.

Rwamirama said unprocessed milk poses a danger to the lives of consumers' health, as some traders mix it with water and other dangerous chemicals. In response, Gordon Mutima, Chairman of the Uganda Dairy Traders Association (Undata), said that Rwamirama did not conduct a comprehensive survey on marketing milk from dairy farmers before taking the decision.

"Minister Rwamirama has almost taken over the powers and duties of the milk regulatory body, the Dairy Development Authority (DDA). It was set up by Parliament to control the quality of milk and other dairy products," Mutima said.

He said the minister had also taken over the role of the Uganda National Bureau of Standards (UNBS). Mutima believes the bureau and DDA should be responsible for investigating milk quality and to confirm whether it is really poisonous or not: "Let technical people like veterinary doctors, DDA officials be the ones to tell us the dangers of selling unprocessed milk or if it is poisonous – not politicians," he said.

Shake-up in Ugandan dairy

Michael Baingana, *DMA's* Comesa editor and member of the Amate Gaitu Cooperative, gives readers an insider's perspective on new developments in the Ugandan dairy industry.

The Uganda dairy industry is continuing to undergo radical changes. The government, through its Ministry of Agriculture, Animal Industry and Fisheries, is cracking down on the informal milk trade sector to help secure public health. Informal milk vendors are notorious for adulterating milk and creating false glut in the market.

Milk can only be transported in proper, refrigerated milk tankers. The informal sector has been given until December to end the sale of unprocessed milk. In a country where 85% of the market is made up of unprocessed milk, this is a major shake-up. Ugandan President Yoweri Museveni has given his personal support to this measure. Henceforth, there is no going back to consuming unprocessed milk.

During a meeting with a delegation from the Sameer Group, the new managers of the

Mutima added that the DDA had sensitised dairy traders about the importance of quality and hygiene in the sector. He said DDA had managed to make milk vendors change from transporting milk using jerry cans to aluminum cans and finally milk tanks.

He said the vendors are ready to improve their activities if given enough time. "Twenty-six milk traders had bought 4 090 aluminum milk cans at sh920 million following a directive from DDA when it banned plastic jerry cans. Part of this money is not yet paid. Rwamirama is still new in the field, hence a need to handle issues carefully," he said.

"The minister cannot give us only four months because we do not have the money for making processing plants which are so expensive," Mustafah Mubiru of Sibyangu Dairy Farm, said. He said they have just bought expensive milk tanks to transport milk on yet unpaid bank loans and that is unfair to now tell them to pack the milk, which requires a lot of capital. – *New Vision and The Monitor*

Ugandan Dairy Corporation, Museveni welcomed the plan to accept milk from only authorised coolers in areas provided to farmers. He said the measure would stop contamination of milk by the middlemen who dilute it.

Already processors are recording higher sales. The Sameer Group has seen its sales double from 25 000-50 000 litres a day. The farmgate price has also held firm despite heavy rains.

"The informal sector has been given until December to end the sale of unprocessed milk"

The Uganda Dairy Traders Association has been up in arms. They have organised demonstrations and even blockaded milk transport tankers that belong to processors. These changes mean that after December, Uganda will become a largely formal dairy sector. This is a major distinction in a region where 90% of their milk is consumed raw. **DMA**

Spilt milk or cash cow?

School milk programmes can directly benefit dairy development, as it creates a demand for the product. This is particularly true in countries with relatively undeveloped dairy industries.

In these countries, farmers and dairy processors see school milk as an exciting opportunity to create a sustainable consumer base. Japan's school milk programme, for example, was instrumental in increasing the country's annual milk consumption from five litres per person in the early 1960's, to over 70 litres today. Imagine the same result in countries with similarly low levels of annual milk consumption.

School milk implies a programme that is financially and administratively supported by government. It can also refer to the distribution of milk in schools through government programmes, industry promotion, or the commercial supply of milk to schools. It is not an easy or particularly large market. Therefore few dairy companies want to pursue it.

However, the importance of milk and dairy products in schools lies not only in the size of the market itself, but also in its consumers – children. They represent an important market, because they drink more milk per head than adults, and because dietary habits established in childhood continue into adult life.

Programmes that encourage children to choose milk and dairy products should not be viewed merely in the light of the actual volume of milk sold. It should be seen as an investment in future demand for the product.

Promoting nutrition

School-based programmes provide an excellent opportunity to promote milk consumption among children. Some see it as the only way in which the dairy industry can meet the challenge of competing with beverages that are heavily supported by promotional campaigns. Yet the dairy industry has a major advantage over these sugary beverages – it is considered a necessary component in children's diets. Milk is the outright winner when one compares its nutritional role in children's diets to carbonated drinks.

However, experience shows that milk's nutritious value is not enough for it to maintain its role in children's diets. School milk programmes therefore represent an important vehicle for milk promotion.

Assistance or independence?

School milk programmes take on many forms. Some concentrate only on milk. In others milk is merely one of the elements of a government school feeding programme. Funding also varies. Some programmes are completely government-funded, while others are entirely private endeavours. In many countries a golden mean exists, with a mixture of public and private funding sources.

Subsidies are increasingly becoming a focal point for discussion, as school milk programmes can place excessive strain on finances.

A number of school feeding programmes were established with the help of aid-funded projects. While such assistance has many benefits, one should remember that aid assistance is finite. When it ends, it can be difficult to sustain the system that depended on it. For this reason some countries such as China, India, Saudi Arabia, Malaysia and Oman, launched their school milk programmes without any direct financial support from government or external agencies. In these cases, the system evolved into one best suited to domestic resources and most sustainable in the longer term.

In other cases, limited government funds are used to provide school milk to the poorest sections of the student population, leaving wealthier sections to pay for the products themselves.

Legislation

In instances where governments do not subsidise the distribution of milk in schools, legislation can favour programmes. Government can support these programmes by setting standards and providing guidelines on good nutritional practices. Public policy, such as nutritional guidelines for school feeding, can have an important impact on the ability of school milk programmes to grow and prosper.

National nutritional guidelines can help by specifying daily recommended levels of milk consumption for children. It can also specify the amount of milk that should be made available to children as part of school lunches or even prohibit the sale of competing products such as carbonated drinks in schools.

Central coordination is a key factor in the success of school milk programmes. Left to themselves, dairy companies are unlikely to

want to sustain the effort of establishing and maintaining these programmes.

Potholes and possibilities

In Kenya, milk distributed in the government-funded school milk programme dropped from 44 million litres in 1989 to three million litres in 1997. It subsequently stopped altogether. In richer countries, political decisions to end school milk subsidies resulted in a substantial drop in school milk consumption. This was the case when the United Kingdom, Australia and New Zealand ended free distribution of milk in schools in the 1970's.

In many former free school milk systems, the distribution system was inflexible. The product itself (typically unrefrigerated white milk) was also unappetising. Many adults dislike drinking milk today because of the way it was presented to them as children. But school milk has moved on since then.

Nowadays milk distribution systems cater for regional and local differences. Because students or parents often bear a higher proportion of the cost, milk is now presented in a more attractive way in terms of refrigeration, flavouring and packaging. In short, milk in schools is being tailored to meet the demands of the child consumer, rather than simply being presented as a bulk commodity.

A global overview

In some instances, school milk programmes have re-emerged with support of the dairy industry rather than government. In these cases, support is not necessarily subsidisation. It rather focuses on promoting a milk drinking culture in schools, leaving the milk to be supplied by commercial distributors. While school milk programmes still predominantly rely on government support, there are a number of examples of programmes without a direct financial contribution from government.

Remijo Katarakanbi, a dairy farmer from the Kabale in Uganda, took it upon himself to expand dairy production in his district by initiating his own school milk programme. When Katarakanbi started with the programme, the town of Kabale only produced 800 litres of milk per day. "Now we are selling 7 000 litres per day."

"I decided we must start a culture of drinking milk so that I can help feed malnourished children. The best way to do this was to start with the youngest children. When you have succeeded

there, you will have created a permanent market." Katarakanbi put his plan in action by involving the schools in the region.

"There are a total of 13 084 pupils in 23 primary schools in the municipality. I planned to supply each pupil with half a litre of milk per day. This would create a need for an extra 3 500 litres of milk a day". He provided the children with free milk on the first day. "On the second day, I went back and gave the schools a discount of 50 shillings per litre. In this way, I got the schools interested, and the children started drinking milk at a reduced price."

Katarakanbi went a step further, and put his ideas on paper. "In 2001, I attended a meeting of the farmers' association in South Western Uganda and told them about our success in Kabale." Representatives from Land O'Lakes offered to help the Kabale farmers set up management committees that specialise in mobilisation, production and procurement in local government.

The project was launched to stimulate further production from farmers in the Kabale district, once a steady market and a good price had been established. With more production and better returns trickling down to farmers and the rest of the community, the project would contribute to poverty eradication.

"Milk in schools is being tailored to meet the demands of the child consumer"

The success of the project, says Katarakanbi, lies in the fact that it is a process-driven, locally initiated programme rather than a "blueprint package". Most importantly, the community is encouraged to take part in the planning process to assure ownership and strengthen sustainability. Owing to Katarakanbi's initial vision of a milk drinking culture, as well as his continuous dedication, the Kabale district is currently at the forefront of school milk initiatives in Uganda.

(Source: School milk in the world: What future? presented by Michael Griffin, Food and Agriculture Organisation of the United Nations, at the School Milk Workshop of the FAO Intergovernmental Group on Meat and Dairy Products, Winnipeg, Canada, 17-19 June 2004. Additional reporting by Karien Slabbert) DMA

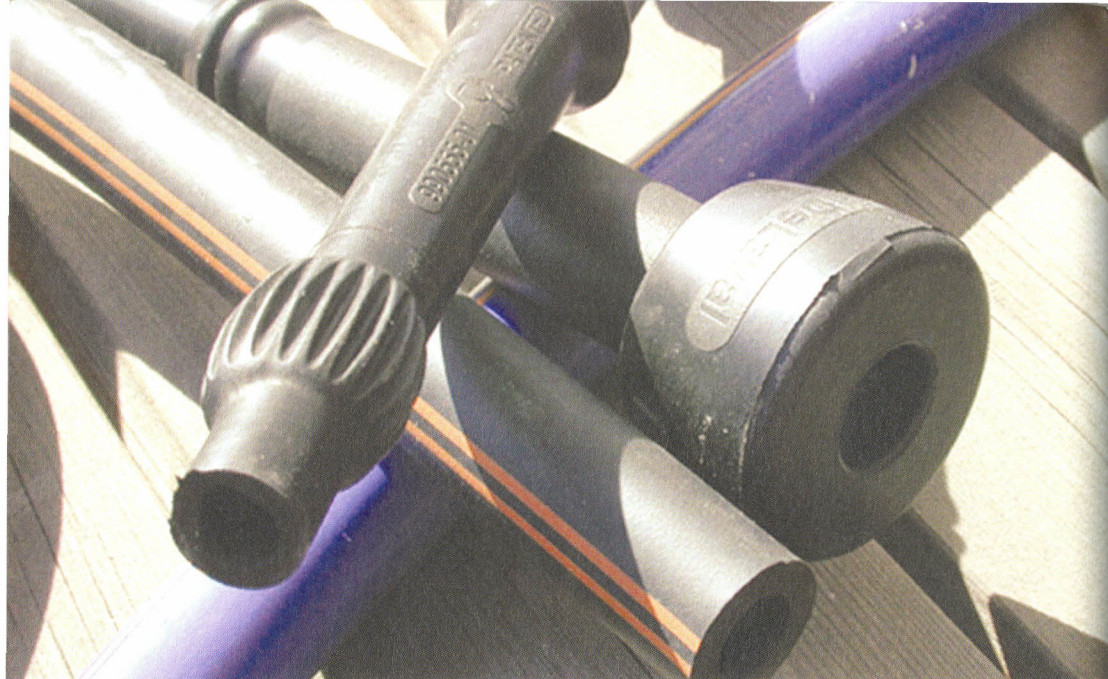
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It pays to replace on time!

by Rykie Visser, export and regional manager: DeLaval

The milking machine liner is the only part of the milking equipment that is in direct contact with the animal. The quality and characteristics of the liner greatly influence milking performance and animal health. It is very important to use the best possible liner type and to make sure you do not milk with old, worn liners.

How long can a liner last?

A liner's lifespan depends on:

- ▶ The number of cows you milk every day
- ▶ How many times per day you milk the cows
- ▶ The number of clusters that you use to milk the cows.

Generally liners should be replaced every 2 500 milkings or six months, whatever comes first.

Overusing liners

It is crucial to replace all liners as a set when the lifespan is over. If one overuses the liners, the following are a few of the problems that may occur:

- ▶ Clusters might slip down the teats during milking
- ▶ You will harvest less milk from the cows
- ▶ The cow's teats might penetrate too deep in

the liner, and this will result in severe teat end damage, which can lead to mastitis

- ▶ The bacteria growth in the milk will be high, due to bacteria growing in the cracks that develop in the liners
- ▶ The liners will also lose its elasticity, resulting in incomplete milking practices
- ▶ You can also spread diseases like mastitis from one cow to the next, by using old liners.

In short, over-used liners will lead to decreased milk-flow, extended milking time, reduced milk-yield and increased stripping. It will affect udder health and milk quality. Milking with over-used liners will reduce the milk volume by at least 4-5%!

These are only a few problems that might occur! The same applies to the milk tube. This tube has to be replaced once a year, regardless of the number of cows or number of times you milk the cows. A good practice is to replace all other rubber parts that are in contact with milk, also once a year.

What type of liner should I use?

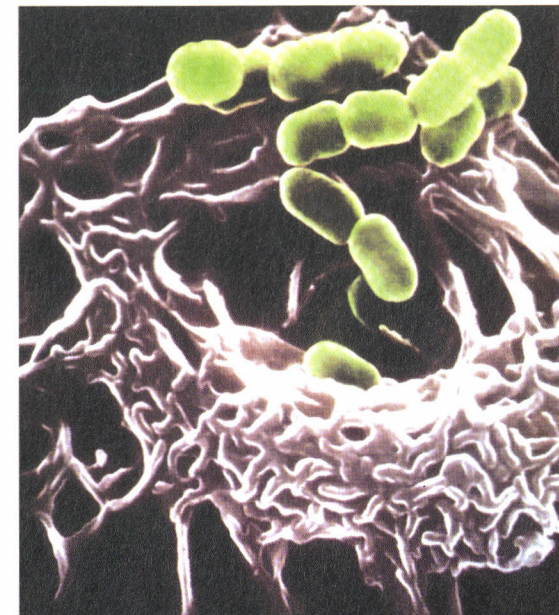
Use original liners that you can buy as a set from the milking machine supplier, as these liners are manufactured for the specific cluster that you are using. Remember to replace liners according to the manufacturer's specifications.

It doesn't cost you to replace on time, it pays to do it! If you choose to use liners for longer than specified, be assured that you might end up culling cows due to spreading of diseases and injuries to the cow's teats!

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- ▶ For long and short teat cups.

If you need more information on liners and liner replacement, feel free to contact the author at e-mail rykie.visser@delaval.com. DMA



You will not be able to see the bacteria that grow in the cracks of over-used liners



Use the correct liner at all times

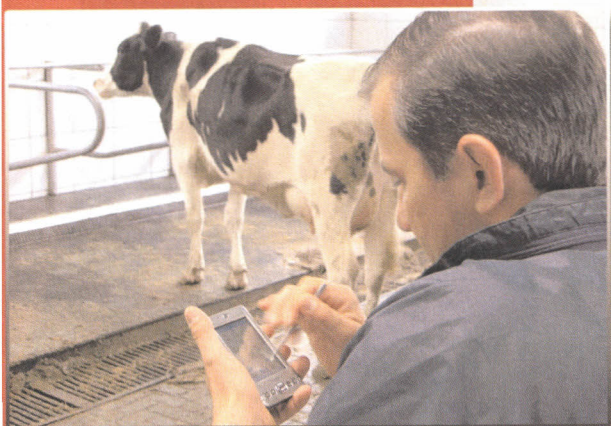


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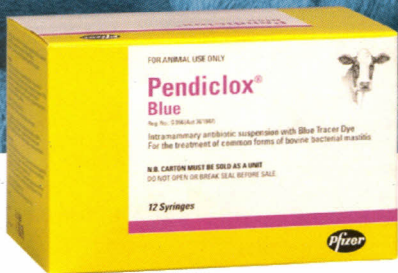
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