Training brochure
For you!

This brochure will give you an insight in the different trainings we provide and the way you can achieve your results with it.

Our training methods are based on blended learning. We start with an introduction of a subject and after a short period you will find yourself back between the cows, in the grassland or in our processing factory, we believe in ‘seeing is believing’ and ‘learning by doing’!

We can offer our trainings for groups from 6 persons or more. Bigger groups we split, to get the maximum result out of the training and enough attention for everybody.

Our trainers are real trainers, so we are used to the blended including practical approach and by exercising the skills needed to run the farm or milk processing department.

So, if you want to develop your knowledge based on seeing is believing and your skills by doing the tasks during the training you are most welcome!

Dairy Training Centre
Background Dairy Training Centre

Dairy Training Centre (DTC) is a leading, international centre for dairy training located in the Netherlands. DTC was established by the Netherlands Government in 1963 to help in developing the Dutch and international dairy sector.

DTC was re-organized this year, but its role and importance has not changed. For over 50 years now DTC conducts international training programs, consultancy and capacity building alongside the implementation of projects all over the world.

Currently, DTC offers short term international training programs in the Netherlands. The training programmes have the objective to build the capacity of mid-career professionals of governmental organisations, non-governmental organisations and private companies world-wide, but with a focus on developing countries.

DTC is demand driven and aims at meeting the needs of the trainees and their employers. Participants in DTC training can apply the skills and knowledge gained through the DTC training programmes immediately when they get home. DTC assures sustainable solutions for organisations and governments that have particular capacity building needs. Through all the courses and training programs of DTC entrepreneurship among the trainees is promoted.

DTC has valued close linkages with livestock research, practical training institutes and other dairy sector stakeholders, both from the Netherlands and abroad. This with the objective to keep its training programs, trainers and lesson material up to date and in line with market demands. This becomes even more important in the future since knowledge and techniques change faster than ever before requiring also new skills and adjusted training programs.

Qualifications of DTC

•Deep knowledge and broad network in the Dutch dairy sector.

DTC is deeply involved in the dairy sector in the Netherlands as mentioned above, also we are member of different network groups such as Dutch Dairy Centre, a network of open-minded dairy delivery and service suppliers with a goal to export their products also in the Kenyan Market.
DTC is partner in the borderless network where many organisations in education and NGO’s support abroad activities especially focussed on Eastern-African Countries.

DTC has set up the Hoofcare Expertise Centre in cooperation with Faculty of Animal Health of Rijksuniversiteit of Utrecht and we are the training organisation for the diplome and certificates of official hooftrimmers in the Netherlands and we partner with four big farmers associations on labour (Agrarische bedrijfsverzorgingsdiensten) to enlarge the skill of their farm professionals.

•Experience with receiving groups of dairy stakeholders and farmers from developing countries, and organising events of one week or more.

This is a mean stream of activities in DTC, each month we organise and implement training programmes for participants out of several (EAST) African and Asian and Eastern Europe Countries, the participants will be trained in dairy farming and milk processing.

Also we receive many stakeholders vary from Ministers/state secretary, board of companies, governmental organisations and all parties out of the total dairy value chain.

•Membership of a sector organisation representing Dutch input suppliers, service providers and/or processors, with an international ambition and agenda

DDC (Dutch Dairy Centre) is our sector organisation from Dutch input suppliers, DTC is well known by all of them and they are open-minded in cooperation with DTC as a neutral/objective partner in this field.

•Reputable with international profile and clientele

Our reputation is a long term one, with high standards and several thousands of alumni in about 20 countries worldwide.

Additional Information

We can arrange for different groups different kind of programs, short till long-term inclusive all the necessary organisational aspects like board and lodging on different levels, transport, translators, visa/flying tickets.

Due to our experience we can handle these groups in a positive and effective way.
Dairy Training Centre works in different countries with partners, they are the ones who organise the groups, have also training locations and trainers. You can find on our website www.dairytrainingcentre.com the available partner in your region/country.

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All our trainings deal with parts or the total of the so-called entrepreneur wheel
Introduction

All our international trainings will be given tailormade for groups of minimum 6 till 15 participants per group, this can be done on our location in the Netherlands or in your country by our partner institute. The exact training location are often farms and processing factories.

Teaching method in all modules:

You will be taught by experienced and qualified staff. Theory and practice are combined to create a variable and challenging environment.

DTC will make use of the DTC guest dairy farms to make the transition to the practical components in the course. Different assignments have to be made by the participants.

Participants will start one month before the training on the DTC E-Learning platform to have already all theory in their hands when they enter the practical training in the Netherlands. Different assignments have to be made by the participants.

Requirements for admission

- Experience in dairy farming or closely related subjects.
- Certificate level;
- Good knowledge of the English language, both written and oral.
- Finally we expect your willingness to perform practical assignments / work during the programme.

Tailormade

Depending on the duration, level and goals of the training due to the fact we work tailormade.

After agreement of the goals and the programme with the group leader, manager/organisation we will prepare the goals and the results after the training.

Before the training will start participants have to fill in introduction questionnaire in order to prepare the training in the best resulting way for each participant.

Certificate of attendance or certificate or diplome
Participants of our short trainings always achieve a certificate of attendance, for some courses a certificate or diploma will be handed out, depending on the duration of the training (longer than 1 week) and if there is an exam passed on the end.

**Housing**

Accommodation and transport to the training centre can be provided. In the Netherlands we can serve you with all kinds of housing, from group accommodation hostels till 5 stars hotel.

**Location**

Oenkerk (in the North of The Netherlands) or else in the Netherlands or your country.

Our training centre in Oenkerk, The Netherlands
Offer and Investment

The training investment will be calculated as follow:

- Access to DTC E-learning platform during one year inclusive service, training materials,
- No. days of training inclusive lunches, VISA invitation letter, Insurance.
- Housing/accommodation
- Transport
- Food: breakfast/lunch/diner
- Insurance

After having received your wishes and questions we will come up with a tailormade proposal inclusive cost calculation.

We call the price an investment, you will earn it back by better results on your own or clients farm!
BASIC Training of trainers in dairy farm management

Target group

- Teachers, trainers, advisors, leaders who are responsible for good practical training on dairy farm management in their home country
- Aspirant trainers of franchise partners of Dairy Training Centre

Goals of the training

To get the didactical and technical knowledge and skills to set up a practical training for farmers and to execute this training in a well performed way.

To get known of the E-learning concept and how to work with this.

Contents

Dairy Farm Management 7 days:

- Good milking practices and milk quality
- Forage production and nutrition
- Young stock management
- Breeding, A.I./P.D., Animal Health
- Management and economics
- Housing
- One day Field Visits (Saturday)

Didactical training 4 days:

- Explanation of blended training approach
- Didactical principles in practical training
- Training of skills
• Execution of a practical training
• Development of a lesson plan
• Examination of students
• Use of E-learning

**Results after the training**

At the end of the Course participants are able to:

- To develop lessons for practical training
- Train practical lessons to students
- To enter the auditing process of franchise trainer DTC

**Duration**

Total training will last 11 days.

**Certificate**

Exam by performing a practical lesson
BASIC Training of trainers in milk processing

Target Group

Teachers, trainers, advisors, leaders who are responsible for good practical training on milk processing in their home country

Aspirant trainers of franchise partners of Dairy Training Centre

Goals of the training

To get the didactical and technical knowledge and skills to set up a practical training for farmers and to execute this training in a well performed way.

To get known of the E-learning concept and how to work with this.

Contents

Basic training milk processing:

- Procurement and Quality of raw milk
- Collection and cooling of raw milk
- Production technology of two milk products
- Marketing and management of a small scale milk processing business
- One day Field Visits

Didactical training 4 days:

- Explanation of blended training approach
- Didactical principles in practical training
- Training of skills
- Execution of a practical training
- Development of a lesson plan
- Examination of students
- Use of E-learning

Results after the training

At the end of the Course participants are able to:
• To develop lessons for practical training
• Train practical lessons to students
• To enter the auditing process of franchise trainer DTC

Duration

• Total training will last 11 days.

Certificate

Condition: well performed exam
Introduction in the Dairy Value Chain

Target group

- Middle level and managerial staff of small- to medium-scale milk processing enterprises. These enterprises may be private companies, government owned companies or co-operatives.
- Staff of training institutes (food processing), staff of advisory services dealing with the development of small scale dairy industries. These services may be rendered by the government, dairy cooperatives, private consultants or banks.

Goals

To get inside knowledge in the total dairy value chain from grass till glass.

Content of the training:

The training program consists of 5 training days including various aspects of the total dairy value chain.

The total program is designed as a basic training.

What do we do:

Day 1. The cow and the dairy farm
The cow and the dairy farm: milking systems and storage of milk on the farm, quality control of cow and milk on the dairy farm: cleaning and disinfecting including dairy farm visit.

Day 2. Composition and quality control
Composition and characteristics of milk, milk collection, storage of raw milk at the plant, quality control tests of raw milk, payment of raw milk, cleaning and disinfecting.

Day 3 and 4 Production of dairy products
Practical demo training in the production of common dairy products: liquid milk products like pasteurized milk, yoghurts, whey drinks, yoghurt drinks, butter and cheese.

**Day 5. marketing and quality assurance**
The marketing of a small dairy plant, the content of a marketing plan and different kinds of quality management systems (HACCP). Incl. visit to farm shop self-processor.

**Results**
After the training the participant is able to describe a value chain for a small cooperative/ farmer group from grass till glass.

**Duration**
5 days

**Certificate** of attendance
Milk processing

Target group

This course is geared toward owners and managerial staff of private, public or cooperative dairy farms, staff of dairy training institutes, extension workers and staff of advisory services who deal with all management aspects of dairy farms.

Goals

After completing this course, you learn how to add value to raw milk processing technologies to achieve marketable, consumable and healthy dairy products. You gain preservation techniques, quality control and analyses, and marketing and organization skills. You also learn how to run a profitable dairy through financial calculations, risk management, organization, and communication. With your newly developed competencies, you return to your home country a confident and well-trained professional.

Contents

Milk Processing consists of transferring raw milk into high quality dairy products which have extended shelf life, are safe to consume and comply with (inter)national standards. Entrepreneurship is the key factor in a sustainable dairy value addition business!

To add value to raw milk processing technologies will be applied to come to marketable, consumable, delicious and healthy dairy products. Techniques of preservation, quality control analyses, marketing and organisation will be trained. Product groups are: pasteurised milk, fermented milk, yoghurts, butter and ghee, different types of cheeses (fresh to semi-hard), ice cream and sweet porridges.

For a sustainable milk processing business investments in a plant with equipment are inescapable, but running it profitable decisions need to be made regularly based on correct financial calculations, risk management, organisation and communication.

Besides the managerial, organisational, economical and communication aspects the technical training component will be:
- Different milk heating techniques: batch and flow, thermisation, low and high heat pasteurisation, sterilisation, ultra-high temperature heat treatment

- Operation of a flow plate heat exchanger: pressure and temperature adjustment
- Cleaning in place
- Cream separation: operation, creaming percentage, cleaning
- Milk fat standardisation: calculations and interpretations
- Homogenisation of milk fat: operation and effect in milk products
- Processing steps and equipment of the manufacture of:
  - fresh pasteurised milk
  - sweet milk products (flavoured, custard, porridges, desserts)
  - fresh fermented milk products: sour milk, different types of yoghurt (set, stir, drink, probiotic) sour cream
  - butter and butter milk
  - ice cream (incl. frozen yoghurt)
  - condensed milk
  - milk powders
- Quality analyses of dairy products: chemical, microbiological and organoleptic/sensorial, recording and interpretation of the results
- Determination of yields and losses
- Cleaning and disinfection procedures, application possibilities of the different chemical agents; do's and don'ts
- Hygiene control in the plant
- Auxiliaries and maintenance of processing equipment

**Operating with raw milk: storage, collection, transport, cooling**

- Synthesis of milk components
- Differences in milk composition of different mammals and breeds
- Influencing factors affecting the milk composition
- Milk structure and physical characteristics
- Milk components composition and characteristics
- Microbiological quality testing of raw milk, different methods, standards
- Different milk containers: advantages and disadvantages
- Raw milk collection systems
- Raw milk quality analyses and standards, adulterations, abnormalities
- Antibiotics
- Raw milk composition analysis, different test methods, interpretation and comparison of the figures
- Communication between milk receptionist and milk supplier
- Raw milk transport methods: advantages and disadvantages
- Cooling of raw milk; different systems, cooling technique, operation and maintenance
- Hygiene procedures in milk handling equipment
- Different milk payment systems: advantages and disadvantages, implementation of hygienic milk quality in the payment system

**Results**

- Process raw milk into high quality and safe dairy products, by operating different processing equipment, using adequate additives and executing microbiological- and chemical quality tests on raw milk and dairy products
- Integrate a marketing concept into the dairy business and to develop and present an innovative dairy product based on a market research
- Manage a small scale dairy plant with a sustainable economic result

**Duration**

4 weeks, 20 training days in the Netherlands

**Certificate**

Condition: well performed exam
Hand, machine and automatic milking

Target group

Farmers, servicemen, advisors

Goals of the training

To know the insights of all kind of milking machines and cooling techniques

To be able to milk by hand and with machine

Content of the training

- Introduction into hand milking
- Introduction into machine milking
- Introduction into automatic milking
- Instruction hand milking
- Instruction machine milking
- Practical machine milking (4 times during the training period)
- Problems during milking
- Calculation of costs of machine milking
Options in milking parlours and their efficiency
• Testing of milking machines
• Maintenance of milking machines
• Milking and cleaning routine in milking parlours
• Judging of teat condition
• Cooling of milk
• Testing of milking machines during peak milk flow

Results after the training

After the training you are able to milk a group of cows in a small milking parlour (4-8 cows per time), also you can judge the milking situation on a dairy farm and make an improvement plan.

Duration

7 days

Certificate

Condition: well performed milk exam
Breeding and fertility management

Target group

Herd managers, professionals in animal health, AI and PD

Goals of the training

To set up the breeding strategy and plan for your own farm
To be able to inseminate a cow and diagnose pregnancy of the cow

Content of the training

Breeding

- Introduction into cattle breeding
- Breeding program for a dairy farm
- Breeding strategies for a dairy farm
- Cattle judging
- Type classification report
- Cow handling
- Milk production recording
- Cattle fertility management
- Cows with abnormal discharge
- Life weight estimation
- Fertility disease recording
- Calving recording
- Use of key performance indicators for monitoring the breeding value of the dairy herd

Artificial Insemination

- Artificial insemination during all training days 5 days, each day 3 hours practicals
Pregnancy Diagnosis

- Pregnancy diagnosis, during 5 days, each day 3 hours practicals

Results after the training

You are able to establish your own breeding strategy and breeding plan

- Maintaining breeding and fertility records, calculation of key performance indicators
- Judge conformation of dairy cows
- Select bulls from breeding bull catalogues
- Develop (cross-) breeding plans
- Detect heat/perform AI and PD and record information

Duration

2 weeks, 10 days of training, in the morning theory and in the afternoon practical training on AI and PD.

Certificate

Condition: well performed AI and PD- exam on the last day of the training
Dairy cattle nutrition, forage production and conservation

Target group
Farmers, trainers, advisors

Goals of the training
To improve milk production, health and reproductive performance of your own dairy herd by managing your forage production and feed rations for each category of young stock and cows.

Content of the training
Feed costs for the dairy cattle herd represent 50 to 60% of the total cost associated with the production of milk.

- Projections for planning of fodder/feed requirements
- Assessment of soil fertility, soil analysis and fertilization
- Grassland management
- Determination of maize yield
- Assessment of dry matter yields of grass
- Fodder conservation and storage
- Mineral and vitamin requirement of dairy cattle
- Devise soil fertilization plans
- Develop a grazing management plan
- Formulate silage
- Optimize rumen fermentation, prevent metabolic disorder
- Use of different minerals and vitamins in dairy
- Feeding management guidelines for various lactation stages of dairy cows
- Systems for reducing greenhouse gas emissions (CH4) in dairy cattle nutrition
- Assess and calculate roughage supplies
- Calculate and optimize rations for the various lactation stages of dairy cows
- Calf and young stock feeding and growth targets
- Feeding systems, TMR
- Systems for monitoring feeding management
- Feed bunk management, feeding fences and mangers, drinking troughs
Results after the training

You are able to manage the forage production and feed rations for all categories of cows and young stock.

Duration

14 days

Certificate

Condition: well performed exam
Calf and young stock rearing

Target group

Farmers, advisors, trainers/teachers

Goals of the training

To manage the calf and young stock rearing on your own farm.

Content of the training

In the training Calf and young stock rearing, all the topics from calf to heifer are included.

- Management of the calving process, use of equipment, care of cow and calf after calving
- Handling difficult births
- Handling/storage/quality of colostrum and colostrum feeding management
- Feeding management of young calves up to weaning, transition management, use of milk replacer
- Housing of calves and young stock
- Health management of calves and young stock
- Young stock feeding from weaning up to 10 months, managing maximum growth rates, up to puberty
• Young stock feeding from 10 months up to insemination at around 14 months, aiming for optimum growth rates
• Selection of bulls, use of sexed semen
• Pregnant young stock feeding up to 2-3 months before calving
• Pregnant heifers feeding up to calving
• Vaccination of dry cows to increase colostrum quality
• Feeding management of dry cows for calving ease and reduced mortality rates
• Recording of calf and young stock rearing information
• Use of key performance indicators for monitoring young stock rearing management (growth rates, BCS, mortality rates, body weight at calving, etc.)

Results of the training

You are able to set up a good calf and young stock program for your own farm to increase the results of production after giving birth in the first lactation and further lactations of the milking cow.

Duration

1 week

Certificate

Condition: well performed exam
Health management

Target group
The training health management is meant for farmers, herd managers and health-specialists / advisors on dairy farms

Goals of the training
To manage the health of the dairy herd in a good effective way.

Content of the training
- Introduction into animal health
- Body Condition Scoring (BCS) of dairy cows
- Criteria for judging the health of a cow
- Use and storage of veterinary medicines on dairy farms
- Administering of medicines to dairy cows
- Instruction use of injectors into the teat canal
- Tick borne diseases, prevention and treatment
- Bio-security on dairy farms
- Use of key performance indicators for monitoring the health status and longevity of a dairy herd
- Mastitis prevention and treatment
- California Mastitis Test (CMT)
- Infectious diseases (IBR, BVD, TBC, Foot and Mouth Disease, etc.)
- Metabolic diseases (acidosis, ketosis, milk fever, displaced abomasum, etc.) → dairy cattle nutrition
- Hoof diseases
- Fertility diseases

Results after the training
You are able to diagnose the health on your own farm and can manage the improvement factors in operation.

Duration
1 week

Certificate of attendance
Housing of cows, mechanisation, automation on dairy farms

Target group
The training is meant for farmers, herd managers and housing-specialists / advisors on dairy farms.

Goals of the training
Options and best management practices for feed fences, feed mangers, walking alleys, floors, cubicles, drinkers, brushes, ventilation and climate control, manure scrapers, lights and manure storage for efficient dairy farming and cow health and production.

Content of the training
- Housing and animal welfare
- Housing and reduction of greenhouse gas emissions
- Mechanisation of forage harvesting
- Mechanisation and automation of feeding management
- Mechanisation and automation options in cow barns for improving labour productivity
- Use of sensors in dairy farms (smart farming)

Results after the training
After the training you are able to choose your own housing and machinery system to set up a dairy farm from animal welfare, climate regulations, labour and economical perspective.

Duration
1 week

Certificate of attendance
Hoof care

Target group

Farmers, advisors, veterinarians

(For professional hoof trimmers we have another (12 days diplome course), Dutch language or per group for minimum 6 till 9 persons)

Goals of the training

To reduce losses in production and welphare of the cows by taking care of good hoof health by adequate hoof trimming methods.

Content of the training

Management has a huge influence on hoof health. Every change in management will have an impact on hoof health. Hoof trimming is a management decision, how often do cows need to be trimmed per year. Reducing or preventing lameness is possible by making the right choices. Management aspects which influence on hoof health are: nutrition (producing healthy horn), housing/cow comfort, hygiene (type of flooring), breeding, calving, young stock rearing and regular hoof trimming. Hoof care is done by daily management with or without awareness of the farmer/manager.

Theory on hoof care diseases (in total 1 day)

- Cause of diseases
- Diagnose of diseases (symptoms)
- Prevention of diseases
- Treatment of diseases
- Management aspects of influence on diseases
- Tool maintenance (knife sharpening), hand tools and bench grinder
- Blocking of feet to improve curing of lesions
- Bandaging severe lesions
- Use of angle grinder
Practical training (in total 4 days)

- Trimming cows on different types of farms
- Trimming with hoof knives and hoof cutters
- Maintenance (preventative) trimming
- Curative trimming
- Demo angle grinder or if possible working with the angle grinder (depending on experience of the hoof trimmers)

Results after the training

You are able to recognise production factors which influence hoof health on your farm and can make steps to improve the circumstances for better hoof health.

You are able to trim the normal hoofs from the cows and are able to treat the lesions.

Duration

1 week

Certificate of attendance
Dairy farm management, BASICS

Target group

Owners and managerial staff of private-, public-, or co-operative dairy farms; staff of dairy training institutes; extension workers and staff of advisory services dealing with all management aspects of dairy farms.

Goals of the training

To understand and achieve inside knowledge about the managerial principles of dairy farming and to train yourself in analysing a dairy farm

Content of the training

- What is management
- How to gather information on the farm
- How to calculate figures till indicators
- Management of input of the farm
- Management of production factor: production of forage and feed
- Management of production factor: production of cattle and young stock
- Management of production factor: health of cattle and young stock
- Management and protocols
- Management of output of the farm
- Management systems
- SWOT analysis on real farm-situation

Results after the training

After the training you can analyse a dairy farm in sense of technical and exploitation figures.

Duration

5 days

Certificate of attendance
Dairy farm management and economics

Target group

Owners and managerial staff of private-, public-, or co-operative dairy farms; staff of dairy training institutes; extension workers and staff of advisory services dealing with all management aspects of dairy farms.

Goals of the training

To be able to calculate the total profit of a dairy farm and to develop a financial plan for the coming years.

Content of the training

- Explanation on what it means to be a manager and an entrepreneur
- Criteria to set up a sustainable dairy farm and to obtain a "public license" to produce
- Key performance indicators to assess the financial and technical performance of dairy farms and benchmark these using local and international standards
- To calculate variable and fixed costs, gross margins and farm income
- To maintain financial records
- Prepare a cash flow forecast
- Calculation of a balance sheet
- Prepare a partial budget in case of investments in existing dairy farms
- Prepare a complete budget for setting up a new dairy farm and assess its feasibility
- Interpretation of technical and financial reports of dairy farms

Results after the training

You are able to calculate your own farm in sense of economics and make a prospective plan for the coming years.

Duration

1 week

Certificate of attendance