

a b e t t e r u n d e r s t a n d i n g

Automatic Milking

International Symposium Lelystad, The Netherlands March, 24 – 26, 2004

Final
announcement



ANIMAL SCIENCES GROUP
WAGENINGEN UR

Automatic milking

Invitation

Ladies and gentlemen, dear colleagues,

It is with great pleasure that we invite you to participate in the International Symposium on Automatic Milking, to take place in the city of Lelystad, March 24 – 26, 2004.

Many of you from all over the world already responded to our call for papers. Therefore, it is our strong belief that we may look forward to an intensive and interesting exchange of research results, opinions and ideas on a wide area of topics related to automatic milking. You shouldn't miss it!

Context

Since the previous International Symposium on Robotic Milking in The Netherlands in 2000, much has happened. In general automatic milking has been adopted as a realistic alternative for milking in the "traditional" milking parlour. Systems have gradually been improved and, maybe even more importantly, farmers have become more familiar with their potential and limitations, both technically and in herd management. At the end of 2002, worldwide around 1800 farms milk by robot compared to approximately 500 in 2000. The majority is still concentrated in north and west Europe, but interest from the south of Europe, Japan, Canada and the USA is increasing. In Sweden and Denmark up to half of the farmers planning the replacement of their milking system, decide for automatic milking. In The Netherlands more than one third do so. By the end of 2003 the number of farms with an automatic milking system is expected to be about 2300 worldwide.

From 2001 to 2003, a significant share of the research efforts in the field of automatic milking has been made within the framework of a EU-granted project on the implications of the introduction of automatic milking on dairy farms. Some seven research institutes and six industrial companies from six countries joined their expertise and experience in order to facilitate a widespread adoption of automatic milking without undesirable side effects. Other research groups made substantial progress in generation of knowledge as well.

In the latter days of the EU-project a symposium is being organised to present the results from this project and to merge these with knowledge generated in studies performed all over the world, **for a better understanding.**

Organisation

The International Symposium on Automatic Milking is organized by the Applied Research Division of the Animal Sciences Group, Wageningen UR, previously known as the Research Institute for Animal Husbandry (Praktijkonderzoek Veehouderij), the Institute that organised the symposium on Robotic Milking in 2000. A close co-operation was established with the international Project Management Committee of the EU-granted project on the implications of automatic milking.

The symposium is enabled by the financial support from the industrial partners in this research project and other sponsors, which is highly appreciated.

Outline

During the symposium the latest knowledge on various aspects of automatic milking will be presented and discussed in four plenary sessions, eight parallel sessions and two poster presentations. Topics addressed will be:

- Socio-economic aspects
- Farm and system hygiene
- Animal health and welfare
- Milk quality and abnormal milk
- Grazing and other aspects of farm and herd management

Special presentations will be dedicated to the "state of the art" in automatic milking in North-America and Europe, and to the supply of society at large with information on new technology in agriculture and the subsequent perception by society.

Besides 12 invited presentations, 36 oral presentations and more than 80 poster presentations originating from 16 countries are to be expected, which will give an excellent coverage of the topics mentioned.

Experts from research and extension organisations, milking equipment and sensor technology manufacturers, dairy industry and governmental bodies from all over the world are warmly invited to participate.

The Organising Committee,



*Albert Meijering
(chairman)*



*Henk Hogeveen
(scientific programme)¹⁾*



*André van der Kamp
(administrator)*



*Kees de Koning
(treasurer and
business liaison)*



*Anita Wolsing
(organisation and
publicity)*

¹⁾ Farm Management Group, Wageningen University

Preliminary programme

Wednesday, March 24

15.00 - 17.00	Press Conference
17.00 - 21.00	Registration
19.00 - 21.00	Welcome reception hosted by the mayor of Lelystad

Thursday, March 25

8.00 - 9.00	Registration
8.30 - 8.40	H. de Vries(NL) Welcome address
8.40 - 9.10	J. Rodenburg (CAN) and C.J.A.M. de Koning (NL) Position paper: Automatic Milking, state of the art in North America and Europe
9.10 - 10.40	Plenary session 1 E. Mathijs (B) Socio-economic aspects of automatic milking K. Knappstein (D) Farm hygiene and teat cleaning requirements in automatic milking H.J. Schuiling (NL) Cleaning automatic milking systems
10.40 - 11.00	Coffee break
11.00 - 12.15	Parallel session 1.1: Socio-economic aspects Wauters, E. and E. Mathijs (B) The economic implications of automatic milking. A simulation analysis based on survey data for Belgium, Denmark, Germany and the Netherlands Hogeveen, H., K. Heemskerk and E. Mathijs (NL) Motivations of Dutch farmers to invest in an automatic milking system or a conventional milking parlour Wade, K.M., M.A.P.M. van Asseldonk, P.B.M. Berentsen, W. Ouweltjes and H. Hogeveen (NL) Economic efficiency of automatic milking systems with specific emphasis on increases in milk production Discussion

11.00 – 12.15	Parallel session 1.2: Farm and system hygiene
	<p>Benfalk, C. and M. Gustafsson (S) Investigation of different cleaning frequencies in automatic milking systems</p> <p>Bruckmaier, R.M. and H.H.D. Meyer (D) Induction of milk ejection during teat cleaning in robotic milking systems</p> <p>Ordloff, D.W. (D) Evaluating cleanliness of udders with an image processing system</p> <p>Discussion</p>
12.15 – 13.30	Lunch and poster presentation
13.30 – 15.00	Plenary session 2
	<p>Hillerton, J.E. (GB) Impact of automatic milking on animal health</p> <p>Rasmussen, M.D. (DK) Detection and separation of abnormal milk in automatic milking systems</p> <p>Knapstein, K. (D) Impact of automatic milking on excretion of antibiotic residues</p>
15.00 – 15.15	Tea break
15.15 – 17.15	Parallel session 2.1: Animal health
	<p>Dearing, J. and J.E. Hillerton (GB) Changes in body condition and fertility in UK herds converting from conventional to automated milking</p> <p>Vosika, B., D. Lexer, Ch. Stanek, J. Troxler, S. Waiblinger (D) The influence of an automatic milking system on claw health and lameness of dairy cows</p> <p>Neijenhuis, F., K. Bos and O. Sampimon (NL) Changes in teat condition in Dutch herds converting from conventional to automated milking</p> <p>Poelarends, J.J. and O. Sampimon (NL) Cow factors related to the increase of SCC after introduction of automatic milking.</p>

<p>Zecconi A., R. Piccinini, G. Casirani, E. Binda and L. Migliorati (I) Introduction of AMS in Italian dairy herds. Effects on teat tissues, intramammary infection risk, and spread of contagious pathogens</p>	
<p>Discussion</p>	
<p>15.15 – 17.15 Parallel session 2.2: Abnormal milk</p>	
<p>Hamann, J. and H. Halm (D) Influence of varying milking intervals on milk composition. A physiological approach on secretion of "normal milk"</p>	
<p>Wiedemann, M. and G. Wendl (D) The use of spectral photometry for detection of mastitis milk</p>	
<p>Whyte, D.S., R. Orchard, P. Cross, A. Wilson, R.W. Claycomb and G.A. Mein. (AUS) An on-line somatic cell count sensor.</p>	
<p>Bennedsgaard, T.W., S. Elvstrøm and M.D. Rasmussen (DK) Selection of cows for treatment of udder infections in AMS herds</p>	
<p>Pietersma, D. and H. Hogeveen (CAN) Cost of discarding milk with automatic separation of abnormal milk</p>	
<p>Discussion</p>	
17.15	Adjourn
<p>20.00 – 22.30 Dinner</p>	
<p>Roe, K. and U. Maris (B) Opinion leaders, gate keepers and news about the agricultural sector; perception of technology by society</p>	

Friday, March 26	
8.30 – 9.30	Plenary session 3 Spörndly, E., C. Krohn, H.J. van Dooren and H. Wiktorsson (S) Automatic milking and grazing De Koning, C.J.A.M. (NL) Impact of automatic milking on milk quality
9.30 - 9.45	Coffee break
9.45 – 11.30	Parallel session 3.1: Grazing Van Dooren, H.J.C., M.E. Haarman, J.H.M. Metz and L.F.M. Heutinck (NL) How pasturing influences the use of AMS – A survey among 15 dairy farms in The Netherlands Munksgaarda, L. and M. Søndergaard (DK) Two case studies on farms combining automatic milking with grazing. Timebudgets, synchronisation of behaviour and visits to the robot. Van Dooren, H.J.C., L.F.M. Heutinck and G. Biewenga (NL) The influence of three grazing systems on AM-system performance Jago, J., A. Jackson, K. Davis, R. Wieliczko, P. Copeman and M. Woolford (NZ) Is automatic milking possible with a 100% pasture diet? Greenall, R., M. Warren and E. Warren (AUS) Integrating AMLs into grazing systems. Lessons from Australia Discussion

9.45 – 11.30	Parallel session 3.2: Milk quality
	<p>Slaghuis, B.A., K. Bos, O. de Jong, A. Tudos, M.C. te Giffel and K. de Koning (NL) Robotic milking and free fatty acids</p> <p>Wiking, L., L. Björck and J.H. Nielsen (DK) Impact of size distribution of milk fat globules on milk quality affected by pumping</p> <p>Hamann, J. (D) Pattern of somatic cell count in milk under automatic milking conditions (VMS[®]) and interactions with milk constituents</p> <p>Berglund, I., G. Pettersson, K. Östensson, K. Svennersten-Sjaunja (S) Quarter milking – a possibility for detection of milk quarters with elevated SCC</p> <p>Pirlo G., G. Bertoni and R. Giangiaco (I) Introduction of AMS in Italian dairy herds. Effects on cow performances and milk quality in a herd of the Grana Padano area</p>
	Discussion
11.30 – 13.30	Poster presentation and lunch
13.30 – 14.30	<p>Plenary session 4</p> <p>Wiktorsson, H. (S) Implications of automatic milking on animal welfare</p> <p>Ouweltjes, W. (NL) Demands and opportunities for operational management support</p>
14.30 – 14.45	Tea break

14.45 – 16.45 Parallel session 4.1: Welfare

Hindhede, J., T. Rousing, I. Klaas and J.T. Sørensen (DK)

A welfare assessment report as a decision support tool in an AMS herd: Practical experiences

Rousing, T., J. Hindhede, I.C. Klaas, M. Bonde and J.T. Sørensen (DK) Assessing animal welfare for decision support in an AMS herd. An expert evaluation

Neuffer, I., R. Hauser, L. Gygax, C. Kaufmann and B. Wechsler (D) Assessment of welfare of dairy cows milked in different automatic milking systems

Lexer, D., K. Hagen, R. Palme, J. Troxler and S. Waiblinger (A) Relationships between time budgets, cortisol metabolite concentrations and dominance values of cows milked in a robotic system and a herringbone parlour

Heutinck, L.F.M., G. Biewenga and H.J.C. van Dooren (NL) Automatic milking and grazing in dairy cattle: effects on behaviour

Discussion

14.45 – 16.45 Parallel session 4.2: Farm and herd management

Meling, M. and H. Wiktorsson (S)

Integration of cow activity in individual management systems. Definition of reliable management parameters from on-line registrations

Ipema, A.H. and P.H. Hogewerf (NL) Effects of milking machine parameters on the mean milk flow rate in a robotic milking system

Kristensen, T. and E. Noe (DK) Considerations at establishment of automatic milking systems in existing herd facilities

Ayadi, M., I. Llach, G. Caja, I. Bustos, A. Bach and X. Carré (ES) Udder cistern evaluation to help the decision making process of assigning the appropriate milking frequency in automatically milked cows

Petterson, G. and H. Wiktorsson (S)

Illumination or guiding light during the night hours in AM barns

Discussion

16.45 – 17.00 **Meijering, A. (NL)** Closing address

17.00 Adjourn

Satellite Seminar Feeding Management

On March 27th 2004, the Applied Research Division of the Animal Sciences Group, Wageningen UR, will organize a satellite seminar "Feeding Management: cow versus herd approach".

The seminar is related to the project "High-tech farm". The emphasis in this farm is put on achieving a high milk yield per cow per worker, thus lowering the cost price of milk. The farm's quota equals 800.000 kg milk and the maximum labour input is around 2500 hours per year. In this project, among others, a prototype of an automated system for individual dairy cow feeding is being evaluated. An individual cow approach in ration composition offers new perspectives for improvement of nutrient utilisation and animal health, while recording of individual feed and nutrient intake gives opportunities to select for feed conversion.

The preliminary programme includes four presentations by invited speakers, a business meeting including an excursion to the "High-tech farm" with its prototype individual feeding system. The Seminar will be held at experimental farm "Waiboerhoeve" in Lelystad, the Netherlands.

The official language during the seminar is English. The registration fee is 195 €. The final programme, the registration form and additional information will be available on the website (www.pv.wur.nl/feedingmanagement)

Timetable

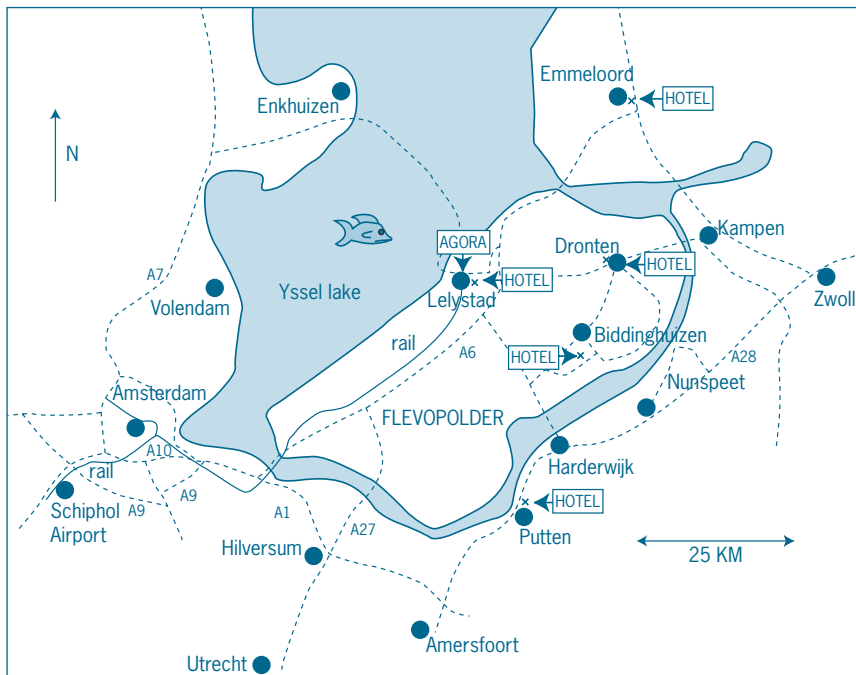
January 1, 2004	Deadline for submission of manuscripts and revised abstracts
January 15, 2004	Final date of reduced registration fee
March 24-26, 2004	Symposium
March 27, 2004	Satellite seminar "Feeding management"

General information

Venue

The symposium will be held in Conference Centre "Agora" in Lelystad. Lelystad is the capital of the province Flevoland. Almost the entire province was reclaimed from the sea (Zuiderzee). The dam to close the Zuiderzee (Ysselmeer dam) was finished in 1932. In subsequent decades several "polders" were created. Flevoland, the land behind dykes, is an important agricultural area.

There is a direct rail connection between "Schiphol" Amsterdam Airport and Lelystad (<http://www.ns.nl/>). Travelling time is approximately 1 hour.



Hotel accommodation and reservation

Participants are kindly requested to arrange their own hotel accommodation. Hotel options are listed below. Options on hotel rooms will expire on January 15, 2004. **When making reservations, please indicate Symposium Automatic Milking.**

Please take notice of the availability of shuttle bus and public transport facilities between the hotels and the conference centre. Where indicated, shuttle bus service will start after the Welcome Reception on Wednesday, March 24, and will be operational till after the Adjourn on Friday, March 26.

Hotel Mercure Lelystad:

Agoraweg 11

NL-8224 BZ LELYSTAD

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Special Prices Automatic Milking Symposium:

Single € 77,00 per night per room

Twin Single € 87,00 per night per room

Suite Single € 117,00 per night per room

Twin € 100,00 per night per room

Suite € 130,00 per night per room

These prices are including breakfast and taxes.

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Fax: (+31)527-612845

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Website: www.valk.nl

Price indication (double room): € 63,52 per night, excl. breakfast and taxes

Shuttle bus facility

No public transport

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Website: www.mercure.nl

Price indication (single room): € 54,50 incl. breakfast, excl. taxes.

Price indication (double room): € 62,00 incl. breakfast, excl. taxes.

Shuttle bus facility

No public transport

Hotel Het Galjoen

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Price indication (double room): € 95,00 per night, incl. breakfast, excl. taxes.

No shuttle bus facility

Public transport by bus

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Website: www.dorhoutmees.nl

E-mail: info@dorhoutmees.nl

Website in Dutch, reservation by e-mail

Price indication (double room): € 115,00 per night, incl. breakfast, excl. taxes.

No shuttle bus facility

No public transport

Language

The official language is English. There will be no translation facilities.

Website

All information, including the registration form and the submitted abstracts, can be found on our website: www.automaticmilking.nl.

Registration fee

The registration fee for participants is:

- € 390,00 if registration **and** payment is received before January 15, 2004
- € 440,00 after January 15, 2004

There will be no reduction for students.

The registration fee covers:

- Participation in the symposium
- A copy of the proceedings
- Lunches, coffee and tea during the symposium
- Welcome reception on Wednesday, March 24
- Dinner on Thursday, March 25
- Transport by shuttle bus, where indicated.

Accompanying persons

Although no specific programme for accompanying persons will be organised, our website www.automaticmilking.nl contains references to sufficient information about (ancient) cities, museums and nature areas in the surroundings of Lelystad for an interesting three-day stay. Accompanying persons who would like to participate in the welcome reception and/or the symposium dinner are most welcome to do so, but must register.

Registration and payment

Registration and credit card payment by internet are highly preferred: the form can be found on the website www.automaticmilking.nl.

If this is not possible, please fill in the attached form, send it to **the Organisation Secretariat** by mail or fax and pay by bank transfer

Payment by cheque will not be accepted.

In case of bank transfer, you may be asked to show evidence of payment at the registration desk.

Organisation

Organising Committee

Dr. Albert Meijering (chairman; scientific programme)

Dr. Henk Hogeveen (scientific programme)¹⁾

Ir. André van der Kamp (administrator)

Ing. Kees de Koning (treasurer and business liaison)

Ing. Anita Wolsing (organisation and publicity)

¹⁾ by courtesy of Farm Management Group, Wageningen Universit

Scientific Committee

Dr. Henk Hogeveen (NL, chairman)

Dr. Christel Benfalk (S)

Dr. J. Eric Hillerton (GB)

Dr. Karin Knappstein (D)

Ing. Kees de Koning (NL)

Prof. Dr. Erik Mathijs (B)

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Dr. Morten D. Rasmussen (DK)

Prof. Dr. Keith Roe (B)

Prof. Dr. Hans Wiktorsson (S)

Scientific Secretariat

Research Institute for Animal
Husbandry

Attn. Symposium Automatic Milking

PO Box 2176

NL-8203 AD Lelystad

The Netherlands

E-mail:

info@automaticmilking.nl

Fax: (+31) 320 241584

Phone: (+31) 320 293430

Organisation Secretariat

Symposium Automatic Milking

Attn. Organisation Secretariat

Mrs. Carla Bierma

Oostrandpark 130

NL-8212 AV Lelystad

E-mail:

organisation@automaticmilking.nl

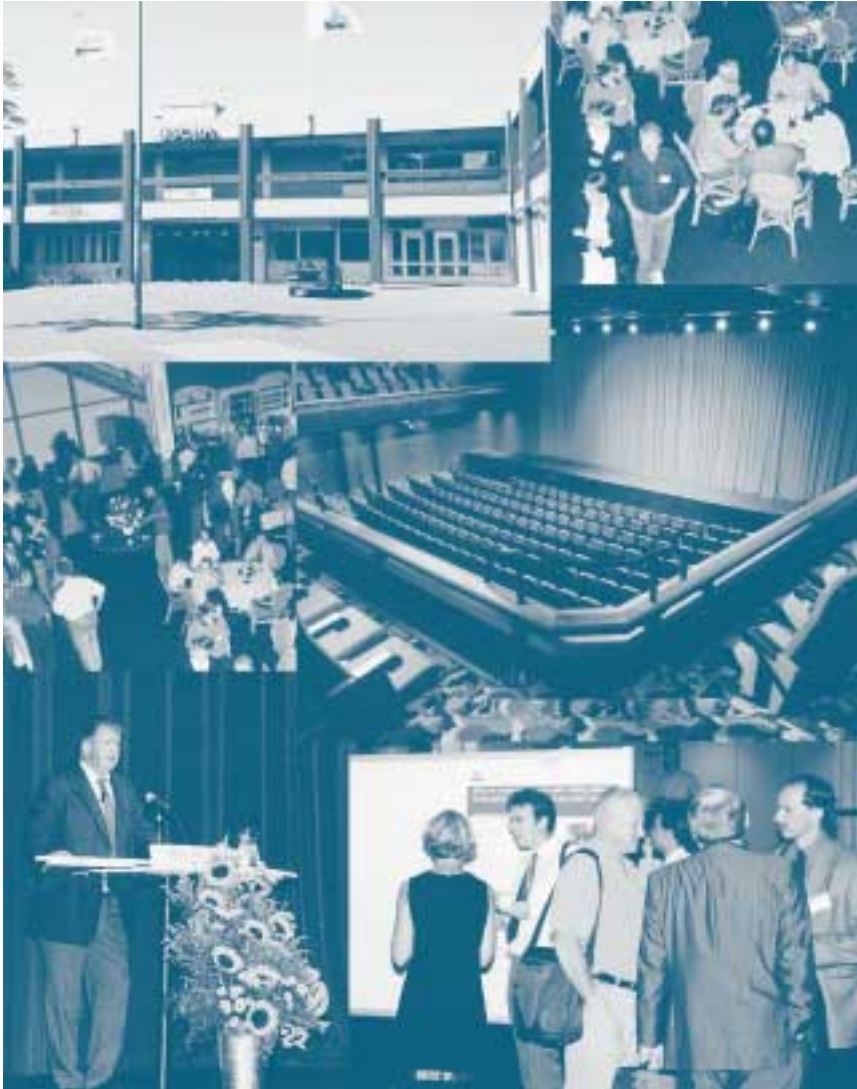
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(+31 320 293430)

Press liaison EU-project Automatic Milking: Ing. Kees de Koning
(+31 320 293432)

Conference Centre “AGORA” Lelystad



REGISTRATION FORM

Note: Registration and payment by internet are highly preferred.

Please copy this form for faxing or posting to:

Symposium Automatic Milking

Attn. Organisation Secretariat

Mrs. Carla Bierma

Oostrandpark 130

NL-8212 AV Lelystad

The Netherlands

Fax: (+31) 320 214898



REGISTRATION DATA

Mr/Mrs
Initials
First name
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Organisation/Company
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Postal code
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E-mail Address
Accompanied by Mrs/Mr

PAYMENT

	Before January 15 2004	After January 15 2004
Registration fee	€ 390,00	€ 440,00
Welcome reception* (€ 35)	€	€
Symposium dinner* (€ 55)	€	€
Total amount	€	€

* for accompanying persons only

When registering by mail or fax, payment must be made by bank transfer, in Euros and free of all charges, to: Rabobank Wageningen, PO Box 114, NL-6700 AC Wageningen, The Netherlands, payable to "Praktijkonderzoek Veehouderij"

European participants: Please use IBAN code number NL10 RABO 011.25.54.989. State your full name, company/organisation and department, as well as "Symposium Automatic Milking".

Non-European participants: Please use SWIFT (BIC) code: RABO NL 2U – 11.25.54.989. State your full name, department and company/organisation, as well as "Symposium Automatic Milking".

Payments by cheque will not be accepted.

All payments must be free of charges to the receiver; if not, charges have to be paid at the registration desk upon arrival.

You may be asked to show evidence of payment at the registration desk.

FOOD

- I/we require vegetarian food for. person(s)
- I/we have other special wishes for lunch and dinner:
.

MISCELLANEOUS

I have the following questions or remarks:

.

Place Date

Signature

CANCELLATIONS

Refunds will be given to cancellations motivated in writing received before February 15, 2004. A processing fee of € 50,00 will be assessed on all cancellations. NO REFUNDS AFTER February 15, 2004.



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