EuroDairy workshop Report
Potential and challenges of grazing dairy cows in Mid-Europe
Kiel (Germany), 30 August 2018
Main report of the EuroDairy technical workshop
Potential and challenges of grazing dairy cows in Mid-Europe
Kiel, Germany 30th August 2018

Submission date:
January 2019

Names of the responsible authors and organisations:
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Dissemination level:
Public

Project deliverable:
3.2 Four technical workshops on resource efficiency

Workshop details

- Date: 30 August 2018
  The workshop was organised in connection to the International Grazing-Conference of the German-speaking countries of Europe
- Location: Kiel, Germany
- Organiser: University of Kiel Institute of Crop Science - Grass and Forage Science & Arbeitsgemeinschaft Grünland und Futterbau der Gesellschaft für Pflanzenbauwissenschaften e. V. – Interessensgruppe Weide
- Language: German
- Participants: 79

About EuroDairy

EuroDairy spans 14 countries, from Ireland to Poland, and from Sweden to Italy, encompassing 40% of dairy farmers, 45% of cows and 60% of European milk output. EuroDairy is an international network to increase the economic, social and environmental sustainability of dairy farming in Europe. EuroDairy fosters the development and dissemination of practice-based innovation in dairy farming, targeting key sustainability issues: socio economic resilience, resource efficiency, animal care, and the integration of milk production with biodiversity objectives. EuroDairy is funded by the EU Horizon 2020 research and innovation programme under Grant Agreement No 696364.
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Short Summary

A EuroDairy workshop on the topic "Potential and challenges of grazing dairy cows in Mid-Europe" was held at Großbarkau close to Kiel in Northern Germany on Thursday 30 August 2018.

The workshop was organised as a link between the International Grazing-Conference of the German-speaking countries (28 - 29 August 2018 at Kiel University) and the Congress for grass and forage production of the German-speaking Countries (29 August - 1 September 2018 at Kiel University). The workshop took place on a private dairy farm owned by Bert Riecken at Großbarkau and included visits to two neighbouring farms involved as pilot-farmers in various EIP-programs. Seventy-nine participants (21 farmers, 25 advisors, 22 scientists, 3 officials from seed companies and 8 officials from regional authorities) from six German-speaking regions (in Switzerland (5), Luxembourg (5), Belgium (3), Northern Italy/Tyrol (2) as well as from Austria (2) and Germany (62) took part. Three additional guests from Ireland (Teagasc and Moregrass) participated in the farm visits.

As an introduction to the workshop farm walks on the following farms were undertaken:

1. **EuroDairy-pilot-farmer Jörg Riecken** who also is engaged in two regional EIP-projects ("Inno-Bau" and "Weidemanager Schleswig-Holstein") was the first to welcome the group. This pilot farm is home to a 100 autumn calving high yielding Holstein cow herd that graze full time from mid-April to the beginning of October. Jörg explained why they have built an additional cow-comfort-barn with space for 120 cows.

2. The group then visited an **EIP-Pilot-farmer, Bert Riecken** who is engaged in two regional EIP-projects ("Smart-Grazing" and "Weidemanager Schleswig-Holstein". Felix Riecken introduced the farm with 90 all year round calving organic Holstein herd that graze full time from mid-April. In addition, Felix explained that the farm had an additional business selling fresh milk-products (milk, yogurt and cheese) to 1900 private households in the Kiel area.

Both farmers believe that grazing is a cheap, natural and low input feed option that promotes animal welfare for milk production.

The five main questions intensively discussed at the workshop included:

1. Why the revival of grazing dairy cows?
2. What are the obstacles to pasture-based farms in all of the different regions present?
3. What un-answer questions farmers had in respect to grazing?
4. Where are the research gaps?
5. Which support needs pasture from regional decision makers or/and the EU?

The idea of discussing a grazing-related topic in form of a workshop was not part of the concept of former international grazing-conferences of the German-speaking countries but will become a fixed place on the agenda from the next International Grazing-Conference of the German-speaking countries that will take place in May 2020 at Bolzano in Italy.
1. Main report

A EuroDairy workshop on the topic "Potential and challenges of grazing dairy cows in Mid-Europe" was held at Großbarkau close to Kiel in Northern Germany on Thursday 30 August 2018.

The workshop was organised as a link between the International Grazing-Conference of the German-speaking countries (28 - 29 August 2018 at Kiel University) and the Congress for grass and forage production of the German-speaking Countries (29 August - 1 September 2018 at Kiel University). The workshop took place on a private dairy farm owned by Bert Riecken at Großbarkau and included visits to two neighbouring farms involved as pilot-farmers in various EIP-programs. Seventy-nine participants (21 farmers, 25 advisors, 22 scientists, 3 officials from seed companies and 8 officials from regional authorities) from six German-speaking regions (in Switzerland (5), Luxembourg (5), Belgium (3), Northern Italy/Tyrol (2) as well as from Austria (2) and Germany (62) took part. Three additional guests from Ireland (Teagasc and Moregrass) participated in the farm visits. The participation in the pre-conference was free for official members of EIP-Agri Operational Groups related to dairy farming. The participation in the workshop was free for all participants.

The 13 lectures held at the International Grazing-Conference of the German-speaking countries (28 of August 2018) was supported by EIP-Schlesvig-Holstein and EuroDairy and served as inspiration for the workshop, which aimed to discuss the five following questions:

1. Why the revival of grazing dairy cows?
2. What are the obstacles to pasture-based farms in all of the different regions present?
3. What un-answered questions farmers had in respect to grazing?
4. Where are the research gaps?
5. Which support needs pasture from regional decision makers or/and the EU?

According to the pre-conference program (see below), inspirational lectures where given by speakers from Switzerland, Austria, Luxemburg, Ireland and Germany. The topics covered a wide range from the potential of grazing, eco-efficiency, comparison of different milk production systems, modelling of grass growth to obstacles for grazing i.e. land fragmentation.

Proceedings (7-page summaries) of the presentations were compiled into the book of abstracts of the International Grazing-Conference of the German-speaking countries (Tagungsband Internationale Weidetagung in Kiel 2018). All participants received a paper version (which is still available for ordering from the organisers) The book of abstracts is also available as free download: https://www.lfl.bayern.de/mam/cms07/ipz/dateien/wt_2018_alles.pdf.

1.1 Farm walks (opening)

The workshop opened with farm walks on the following farms.

1. **EuroDairy-pilot-farmer Jörg Riecken** who also is engaged in two regional EIP-projects ("Inno-Bau" and "Weidemanager Schleswig-Holstein") was the first to welcome the group. This pilot farm is home to a 100 autumn calving high yielding Holstein cow herd that graze full time from mid-April to the beginning of October. Jörg explained why they have built an additional cow-comfort-barn with space for 120 cows.

2. The group then visited an **EIP-Pilot-farmer, Bert Riecken** who is engaged in two regional EIP-projects ("Smart-Grazing" and "Weidemanager Schleswig-Holstein"). Felix Riecken introduced the farm with 90 all year round calving organic Holstein herd that graze full time from mid-April. In addition, Felix explained that the farm had an additional business selling fresh milk-products (milk, yogurt and cheese) to 1900 private households in the Kiel area.

Both farmers believe that grazing is a cheap, natural and low input feed option that promotes animal welfare for milk production.
Both farmers are also involved in the new German EIP-Projekt "Weidemanager Schleswig-Holstein/ Pasture manager Schleswig-Holstein". This project aims to increase the efficiency of pasture-based dairy farms in Schleswig-Holstein by the adoption of international innovations in pasture management (http://www.eip-agraresh.de/eip-innovationsprojekte/2-call/).

Both farmers took part in a EuroDairy farmer’s exchange visit to Ireland and have invested in an Irish inspired grazing infrastructure, e.g. the use of rising plate meter-readings for optimising grazing. Currently, they are testing an Irish innovation “the Grasshopper automatic GPS-based Rising-Plate meter” under German conditions.

1.2 Workshop discussion

5 main questions were intensively discussed at the workshop:

1. Why the revival of grazing dairy cows?
2. What are the obstacles to pasture-based farms in all of the different regions present?
3. What un-answered questions farmers had in respect to grazing?
4. Where are the research gaps?
5. Which support needs pasture from regional decision makers or/and the EU?

1) Why grazing dairy cows, why there is a revival of interest in grass based milk production

a) Pasture is considered as the cheapest forage source. Even with milk prices of 371 € per ton EC-milk in August the average production costs in (Northern) Germany are by far not covered. The participating farmers expressed that enough pasture on farm lowers their forage costs.

b) Grazing adds to farm animal welfare and consumers are willing to pay extra for pasture-based milk. A farmer expressed that even if it does not decrease his forage costs (but he was convinced that it does) opening the barn in spring and letting the cows out on fresh grass makes the efforts for grazing worthwhile. Due to an increase in demand, several German creameries offer their customers grazing based milk-products and pay between 0.5 and 1.0 euro cents per litre when the farmers guarantee the minimum standard that for 120 days a year cows spend at least six hours at pasture with fresh grass on at least 1000 m² of grazing land per cow.

c) Grazing reduces common production diseases and other health problems like lameness and fertility and improves the fitness of dairy cows, which is important to prevent difficult calving.

d) Good forage quality with high energy, protein and vitamins, especially when grazed in the correct growing stages (3-leaf stage).

e) Cows out on grass are important for the touristic value of both the alpine and lowland regions.

f) Grazing is essential to prevent overgrowing and scrub encroachment in mountainous grasslands.

g) Pasture offers other ecological niches compared to grassland cut and fertilised with slurry which increases the biodiversity of fauna and flora.

h) Pasture decreases the workload during the grazing season (less silage has to be made, less routine work such as mixing and feeding silage, cleaning cubicles and manure spreading).

e) Pasture is considered as environmentally friendly forage. Lower demands of fossil energy due to reduced demands for silage harvesting, mixing and feeding, less manure spreading. If high-energy grass is replacing maize silage, the product carbon footprint is decreased because of higher soil carbon sequestration. Grazing reduces ammonia emissions compared to storage and spreading of slurry.
2) What are the obstacles to pasture-based farms in the different regions present?

a) Land fragmentation in combination with increased herd sizes, especially in the southern regions, most farms have only limited grassland area in direct connection to the barn/milking parlour. Due to historical parcelling modern farms have to cope with large numbers of small-disconnected areas spread over a big area. In these areas, it is difficult to build an appropriate grazing platform for larger herds. The crossing of public traffic ways with cattle are nearly impossible, permissions of tunnelling of public roads is impossible to receive and due to high safety standards way too expensive. Possible solutions: a) re-parcelling land plots and land consolidation with help of official authorities, b) movable milking systems.

b) Limited possibilities to improve grasslands on i) lowland / fen grassland or ii) mountainous or alpine regions or iii) grassland with imposed habitat requirements or restrictions in use.

c) Higher investment costs compared to winter mild countries like Ireland or New Zealand. All of the represented regions at the workshop (Northern Germany, North Rhine Westphalia, Bavaria, Luxemburg, Switzerland, Austria and South Tyrol), have the risk of high snowfall and very low temperatures in during the winter months with temperatures falling below -20°C. This leads too much higher investments in buildings compared to the named countries that experience milder winters. The investment costs for buildings of farms with a focus on grazing are as high as those of farms who house their cows all year. In addition, farms who want reintroduce/improve or intensify grazing have high investment cost for the milking platform (tracks, multi-access fences, water troughs). As a consequence, capital costs per cow are very high which lead to the need for higher milk yields per cow compared to counties like Ireland or New Zealand.

Solutions proposed: Conversion from all year round calving to autumn calving, a strategy to combine high milk yields per cow with good utilisation of pasture. (Autumn calving allows to feed high merit cows during the first half of the lactation period with high input feed, from spring on cows are in the second phase of the lactation and can cover most of their energy demand from grazed grass).

d) Knowledge about grazing has disappeared from a lot of farms
   - Advice about grazing is hard to find, advisors and teachers at agricultural schools and colleges are not trained or not familiar with grazing.
   - Grazing infrastructure has disappeared on most farms.

e) Technological progress/innovations with respect to grazing are very limited in Mid-Europe. Reasons: i) Agricultural suppliers have very limited interest in grazing. (One farmer stated, “In grazing systems, there is less money to earn for agricultural suppliers”), i) Very limited research is carried out with the aim to optimize grazing.

f) Day to day variation of forage quality, suboptimal grass uptake for high merit cows in periods of high rainfall. (Solution proposed during the workshop: Use of crossbreeds or more robust breeds, like the red and white or black and white low-land cattle or Fleckvieh/Simmentaler etc.).

g) General limitations of grass dry matter uptake for high yielding breeds like Holstein-Frisians. Grazing, cud chewing and rumination is time-consuming, higher water contents in fresh grass fills the rumen, together with both limits the dry matter uptake compared to feeding TMR.

Solutions proposed: i) allowance of appropriate pre-grazing mass (1 to 1.4 tons DM per ha at the 3-leaf stage of grasses), ii) tolerance of higher grazing residuals for high yielding compared to low yielding cows, iii) cutting the grass before cows enter the paddock iv) use of crossbreeds or more robust dairy cattle breeds.

h) Visible forage losses in form of grazing residuals close to urine and dung patches or weeds. Tolerance of higher grazing residuals for high yielding compared to low yielding cows. Solution proposed: i) allowance of optimal pre-grazing mass and optimal growing stages, ii) use of the leader-follower principle, graze the residuals with sheep or horses/or suboptimal young stock, iii) alternation of grazing and cutting, iii) cutting the grass before cows enter the paddock iv) use of crossbreeds or more robust dairy cattle breeds that can be forced to graze harder. A farmer stated that in comparison forage losses in silage based feeding systems are underestimated.

i) Increased use of automated milking systems, which are more difficult to combine with grazing.

j) Risks for high nitrate leaching losses into the groundwater.
3) **What un-answered questions farmers had in respect to grazing?**

The workshop participants stated that since the late eighties farmers were advised to optimise milk yields per cow and were told that all year round indoor feeding was the solution. The role of grazing in continental milk production is still declining rapidly. Knowledge about grazing and infrastructure for grazing has disappeared from a lot of farms. Professional advice about grazing is hard to get, advisors and teachers at agricultural schools and colleges are not trained or not familiar with grazing. Technological progress/ Innovations with respect to grazing are very limited in Mid-Europe.

**Problems and open questions addressed of farmers present at the workshop were:**

- Limited knowledge about effective grazing and management tools for decision support
- Which is the optimal grazing system for my specific farm?
- Advice for optimal grazing infrastructure is hard to get
- Due to very limited grazing trails and limited grass breeding with a focus on grazing, farmers point out the need for grazing optimized grass species and seed mixtures
- Region-specific budgeting tools in the German language are missing, farmers and advisors are faced with difficulties to estimate the contribution of grazing to their daily or monthly milk production
- Comparisons/Tools to evaluate the financial advantages and disadvantages of grazing compared to systems based on indoor-feeding are hard to get
- Financial support for optimal grazing infrastructure is missing
- How can we document that grazing of cattle is more beneficial with respect to farm animal welfare compared to systems based on all year indoor feeding?

4) **Where are the research gaps?**

Farmers and advisors present at the workshop complained about too little research and development in the area of grazing which is carried out at state- or federal agricultural research centres and universities. They point out that especially the transfer of findings from universities to the farmers is suboptimal and when it takes place it takes too long until it reaches the farms. Innovations and findings made in other countries hardly reach German-speaking farmers. Farmers mentioned that there is too little exchange between researchers and farmers and advisors as end-users. They express their needs and wishes that researchers would spend more time also publishing results in farmers’ magazines. The workshop participants also requested the need for research and better knowledge transfer in the following topics:

- **Development of decision support tools in German for optimisation of grazing** which are considering regional differences and uses success parameters they are used to. Decision support tools that create facts and diagrams to help farmers to make day to day management decisions: (grass wedge, rotation planners, budgets......). Decision support tools which allow farmers to evaluate medium to long term performance from the farm - distribution of growth and paddock summary reports.

- **Development of tools to evaluate financial benefits or disadvantages of grazing.** Tools that allocate where the milk that is produced comes from: i) grazing, ii) added forage or iii) concentrates.

- **Studies comparing advantages and disadvantages of pasture-based dairy production** with respect to:
  - Economic performance
  - Farm animal welfare
  - Animal health
  - Feed efficiency (comparison of forage losses)
  - Forage quality
  - Environmental performance with respect to nitrogen emissions, product carbon foot print
  - Biodiversity
  - Product quality.

- **Development of reliable and easy to handle tools for measurement of available grass.**

- **Development of tools forecasting regional grass growth and changes in grass quality.**

- **Development of better grass varieties and seed mixture suitable for grazing purpose.**

- **An improved knowledge transfer from findings in regional and international research.**
5) Which support needs pasture from regional decision makers or EU?

The participants were asked the question about “support needs pasture from regional decision makers or EU?”

The present farmers and advisors requested:
- more financial resources for:
  i) improved advice on grazing
  ii) intensified applied research on grazing
  iii) improved training in grazing at agricultural schools and colleges
  iv) enhanced knowledge transfer from research to farmers and advisors as end-users.
- support to brand grazing based milk for customers.
- financial support for investments in optimized grazing infrastructure (tracks, multi-access fences, water troughs, movable milking systems) comparable to the financial support given when invested into farm buildings.
- support to decrease the land fragmentation obstacle for effective grazing, especially in the southern regions where most farms only have limited grassland area in direct connection to the barn/milking parlour e.g. re-parcelling of plots and land consolidation with help of official authorities.
- financial support in regions with limited possibilities to improve grasslands e.g. i) on lowland/fen grassland or ii) mountainous or alpine regions or iii) grassland with imposed habitat requirements or restrictions in use.

1.3 Post workshop farm visits

After the workshop, all participants were invited to take part in two farm visits the following day (31 August) by the subsequently hold Congress for Grass and Forage production of the German-speaking countries, with the aim to complete the picture of effective grazing-systems in the German federal state Schleswig-Holstein.

Farm 1: Lindhof, Kiel university’s experimental farm for low-input milk production. Lindhof is one of the EuroDairy pilot-farms and also is engaged in several regional EIP-projects (Smart-Grazing” “Catch-crops for forage production” and ”Weidemanager Schleswig-Holstein” (http://www.eip-agrar-sh.de/eip-innovationsprojekte/).

Lindhof is an organic pasture-based farm that milks 100 spring calving Jerseys and Jersey/EBI crossbreeds. Lindhof is integrating secondary legumes like red- clover and birdsfoot trefoil as well as herbal forage plants e.g. lancelot plantain, chicory, sheeps burnet and caraway (all deep routing) into their pasture to increase water-use and plant nutrient-use efficiency and to contribute positively to soil fertility. The integration of these species into classical ley consisting of perennial ryegrass and white clover also aims to improve forage-uptake during grazing season as well as forage quality and biodiversity.

At Lindhof, the Irish participants explained the Grasshopper automatic GPS -based Rising-Plate meter an innovative tool for grazing-management, which currently is being tested as one innovation to improve grazing in the EIP-Project, Weidemanager Schleswig-Holstein.

Farm 2: The farm of EDF-farmer Christian Cordes as the fourth model for maximising grazing. Christian’s farm has around 220 all year round calving cows. Christian Cordes who is both, EDF and EuroDairy pilot farmer, focusses on combining high milk yields per cow (10.500 kg/cow and on average five lactations per cow) and grazing. His attempt is high input during winter with compact total mixed ration based on silage maize and grass silage. Freshly calved cows always receive high input feed, cows in the second phase of the lactation form his grazing group of 120 cows. The grazing group changes during the grazing season, cows being dried off leave the group when it is time and fresh cows (reaching the second phase of the lactation curve) join the group. Christian Cordes’ aim is to convert from all year round calving to autumn calving (his strategy is not to change cows but to inseminate after a single extended calving interval of up to 450-500 days to synchronize his herd). His farm has it own biogas power plant which turns over as much biomass as his 220 cows do, and of course, it utilises all of their slurry. His farm is located in the area of Northern Frisia, 10km south from the Danish border.
2. Exploitation of results

The output of this workshop will be reported on the EuroDairy website www.eurodairy.eu.

The idea of discussing grazing-related topics in form of a workshop so far has not been part of the concept of former International Grazing-Conferences of the German-speaking Countries but will become fixed place on the agenda of the next International Grazing-Conference of the German-speaking Countries held in May 2020 at Bolzano in Italy.

3. Acknowledgements

The involvement of EuroDairy and EIP farmers presenting, and hosting farm visits, is gratefully acknowledged. EuroDairy is funded by the EU Horizon 2020 research and innovation programme under Grant agreement No 696364.
4. Appendices

4.1 List of attendees

Franziska Akert HAFL
Meike Backes LWK Niedersachsen
Kerstin Barth Thünen-Institut
Uwe Bäumer Agrar Beratung Norde. V. EIP Weiden
Tina Baumgärtel Thüringer Landesanstalt für Landwirtschaft (TLL)
Clara Berendonk LWK Nordrhein-Westfalen
Josef Berger, Landwirt LFL Bayern
Malin Bockwoldt LWK Schleswig-Holstein EIP Grünen management
Isabelle Böhme LWK Niedersachsen
Gérard Conter Lycee Technique Agricole, Luxembourg
Lena Dangers Grünlandzentrum NOS/Bremen
Josue De Los Rios Mera Universität Kiel
Friederike Fenger Teagasc/ Ireland
Sebastian Glowacki LWK Nordrhein-Westfalen
Christian Goffin Glei / Agra-Ost
Kerstin Grant landwirtschaftliches Zentrum BW (LAZBW)
Marjolein Haase LWK Nordrhein-Westfalen
Tiemer Hans-Jürgen Eip-Projekt Weidemanager
Keanu Heuck Eip-Projekt Weidemanager
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Martina Hofmann Hochschule Weihenstephan-Triesdorf
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Irene Holzmann BRING
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Henri Kohnen Centre of Resiliency, Luxembourg
Katrin Kuka Julius Kühn-Institut (JKI)
Edmund Leisen LWK Nordrhein-Westfalen
Ralf Loges Universität Kiel
Carsten Malisch Universität Kiel
Angela Mögel Landesbetrieb Landwirtschaft Hessen (LLH)
Friederike Mund top agrar
Josef Nösberger ETH
John Kormla Nyameasem 1 Universität Kiel
Ulrike Peschel 1 Ökoring SH
Andre Mattern, Liecken Landmilchs
Tammo Peters Universität Kiel
Christian Pfitzner BRING, Südtirol, Italien
Beat Reidy HAFL Zollikofen
Jörg Riecken Eip-Projekt Weidemanager
Felix Riecken Eip-Projekt Smart-Grazing
Gerhard Riehl Sächsisches Landesamt
Susanne Rolinski Potsdam Institut für Klimafolgenforschung
4.2 Pre-conference agenda

(Translated to English from German as conference language)

International Grazing-Conference of the German-speaking countries of Europe 2018 „The Potential of Grazing“

Venue: Universität Kiel, Olshausenstr. 75, 24118 Kiel, Hörsaalgebäude

Organiser:
Chair of Grass and Forage Science
Institute of Crop Science and Plant Breeding
Hermann-Rodewald-Straße 9, 24118 Kiel
Contact: Dr. Ralf Loges
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Tel: 0431 880-4654

Wednesday, 29th. August 2018

13.15 Opening Grazing-conference - Friedhelm Taube – University of Kiel

Lecture block I: 10 Min. Lecture + 5 Min. Discussion; Chairman Heng Kohnen

13.30 Presentation of the project ‘Eco-efficient milk production Lindhof’ - R. Loges - University Kiel

13.45 Nutrient removal from pasture - Evaluation of grazing trials with cattle and cows
Siegfried Steinbeiger, Michael Diepolder and Hubert Speikers – L-L-Bavaria

14.00 EFFIMI (Efficient Milk Produktion) - A standardized calculation tool for comparing the efficiency of milk production systems
Sebastian Ineichen, Biaida Gregori, Lukas Knobloch, Beat Reedy - BFH-HALF Switzerland

14.15 Fresh grass based milk production - systems in comparison - Beat Reedy, Esther Mulser, Sebastian Ineichen, Franziska Akert, Katharina Dom, Stefan Probst, Hansjorg Frey, Thomas Haas, Markus Hötchi and Plau Hofstetter - BFH-HALF Switzerland

14.30 Modeling growth rates on pasture
Tammo Peters, Christof Klüsb, Thorsten Reinos, Ralf Loges, Friedhelm Taube - University Kiel

14.45 Simulation of grazed and harvested grassland with the LPJM model
Susanne Rolinski, Stephen Wirh, Marie Brunel, Christoph Müller - Potsdam Institute for Climate Impact

15.00 Coffee & Posters

Lecture block II: 10 Min. Lecture + 5 Min. Discussion; Chairman Beat Reedy

15.45 Potential of secondary plant compounds for intensive grazing systems - C. Malisch - Uni Kiel

16.00 Grazing based beef production with cross breed animals - Eric Moli – Farmer Switzerland

16.15 Full-grazing or silage feeding: Performance of organic dairy cows in the mountain area of Austria - Andreas Steinwieder, Walter Starz, Hannes Rohrer, Johann Hausler, Rupert Pfister - HELFA Raumberg-Gumpenstein Austria

16.30 Influence of land fragmentation on feed composition and milk yield of grazing based milk production systems
Friederike Krämer, Imelda Casey, James Humphreys – Teagasc, Fermoy, Ireland

16.45 Comparison of productivity of dairy cow pastures in different regions - Impact of Location and rainfall - Edmund Leisen. Landwirtschaftskammer Nordrhein-Westfalen

17.00 Comparative studies on the course of the core and skin surface temperature in suckler cows under field conditions
Andreas Fischer, Jürgen Pickert, S. Ehret, Axel Behrendt - ZALF Müncheberg

17.15 Subsidies for pasture as agri-environment-climatic measure
Gérard Coignet, Henri Kohnen, Geert Van Vliet – LTA, Luxembourg

17.30 Final discussion

18.30 Meeting pasture-working group

19.30 Dinner together (self-pay) (Längengrad, Schwedenkai 1, 24103 Kiel)
4.3 EuroDairy workshop agenda

(Translated to English from German as conference language)

International Grazing-Conference of the German-speaking countries of Europe 2018
EURODAIRY-Workshop:
Potential and Challenges of Grazing Dairy Cows in Mid-Europe

EURODAIRY-Workshop with excursion:
“Potential and Challenges of Grazing Dairy Cows in Mid-Europe”

Program: Thursday 30th of August
8.15 am: Introduction farm walks on the following 2 farms with focus on grazing dairy cows
(Address 1: Zum Grunhof 1, 24245 Großbarkau):
1. Jörg Riecken: Grazing with high yielding Holstein cows, autumn block calving,
2. Bert Riecken: Organic dairy production based on grazing all year round calving Holstein cows. The farm is specialised in processing and self distribution of fresh milk-products. Both farmers consider grazing as a cheap, natural and low input forage which is adding animal welfare to milk production. Both farmers engage themselves in the new EIP-Project "Weidemanager Schleswig-Holstein" with the aim to improve grazing.

10.30 am: EURODAIRY-Workshop (Address 2: Bert Riecken: Zum Eichof 1, 24245 Großbarkau):
“Potential and Challenges of Grazing Dairy Cows in Mid-Europe”
(Moderation Dr. Ralf Loges)
Farmers, scientists and advisors:
a) discuss the potential and challenges of grazing dairy cows in the participating countries,
b) compare pros and cons of different grazing strategies,
c) evaluate environmental effects and farm animal welfare aspects of grazing and
   state
   - the need for research as well as for
   - support needed from regional decision makers or EU

Organising partners

![CAU](image1)
![EuroDairy](image2)
![EIP-agri](image3)
4.4 Pictures from the workshop

EuroDairy pilot farmer, Jörg Riecken, introduces his farm to the participants of the workshop.

Farmer Felix Riecken explaining his family's business of selling fresh milk products to 1900 households in the area of Kiel.
The German EuroDairy-partner, Ralf Loges, addressing the workshop-questions

Demonstration of the grasshopper-rising-plate meter on EuroDairy pilot farm, Lindhof.
Farmer Christian Cordes explaining his grazing system based on autumn calving high yielding Holstein herd.