

# 25 years of entrepreneurship - always looking to the future!

By the members of the EDF Scientific Team for Analysis and Research (EDF STAR)

To mark its 25<sup>th</sup> birthday, this year's EDF Congress was held in Rostock, Germany from 24<sup>th</sup> to 26<sup>th</sup> June 2015. This year German farmers shared their knowledge and experiences with a special focus on Mecklenburg-Vorpommern, a federal state in eastern Germany, part of the former GDR.

EDF President *Katrine Lecornu* in her opening speech highlighted the record number of 375 delegates from 27 countries attending this year's Congress. She also pointed out that this was the first Congress after the abolishment of milk quota. In her speech *Katrine* underlined the volatility of the input and output prices and named many challenges but also opportunities for dairy farmers—in Germany and elsewhere.

Henning Helms, President of EDF branch in Germany and a dairy farmer himself, addressed an important and still ongoing change for dairy farmers: Dairy farmers have been constantly changing their position from being workman in the past to entrepreneurs today.

# **Dairying in Germany? Very diverse!**

As a country Germany produces over 31 million tonnes of milk each year, for which reason Germany is the biggest producer in the EU dairy market and the fifth biggest in the world. The average milk yield of almost 4.3 million dairy cows is 7,352 kg of milk per cow per year. In terms of dairy processing, nowadays there are 147 German dairy processers, three of them ranking among the top 20 world dairies (DMK, ARLA and Müller).

Birthe Lassen (Thünen Institute, German STAR member) and three young farmers of the German branch (Renke Ackermann farming 100 Holstein cows in Lower Saxony, Manuel Schneider farming 550 cows in Hessen and Sebastian Schleicher farming 110 Simmental cows in Bavaria) highlighted that there is a big variation in dairy farming features within Germany—leading to various entrepreneurial challenges for farmers.

Core dairy regions in Germany are Ba-

varia (26% of overall milk production) and Lower Saxony (20%). Mecklenburg West Pomerania is rather of minor importance in terms of production volume (5%) but dairy farms in Eastern Germany probably went through the biggest changes in the past, triggered by the reunification 25 years ago.

# Farm size can make a difference

Mecklenburg-Vorpommern and other states in eastern Germany stand out in terms of farm size: large scale farms with large dairy herds (av. 183 cows per farm) and many hectares of farmed land characterise the agricultural landscape. This is the main difference towards Western Germany (av. 48 cows per farm) and many other European countries.

Farm size has also an impact on farm economics: *Birthe Lassen* underlined the indirect relationship between farm size and production costs; economies of scale meaning that bigger farm have lower unit costs (see info box on page 3).



# **History formed farm structures**

The out-standing farm structures in eastern Germany are the result of historical developments. An interesting presentation in regarding this development was held by *Tim Koesling*, a farmer and advisor from Sachsen-Anhalt. Starting from 1945 and the end of World War II, *Tim* explained the situation when Germany was destroyed physically and financially, and eastern Germany was under Soviet administration:

Between 1945 to 1949 a land reform was introduced in eastern Germany, with property over 100 ha of farmland and forests being taken away from the private owners by the government. During these years 3.3 million hectares of farmland (35 % of all farm land) were expropriated. About 2.2 million hectares were redistributed to 'Neubauern' (new farmers). 1,100 state farms and 200,000 new private farms were established. To allow these farms to operate, facilities to rent out farm machinery were established across the country.

Following this, the collectivisation of farms took place in two phases. The first phase from 1952 to 1960 saw agricultural cooperatives (LPGs) founded with an average size of approximately 600 hectares. Farmers were (more or less) forced to join the cooperative and to incorporate their land, animals, machin-

ery and labour. Further collectivisation took place in the period from 1968 to 1975, when several LPGs were joined together to form 'KAPs' averaging more than 4,000 hectares in size. Until then these farms were mixed farming enterprises with both livestock and arable production. From 1975 on more specialized farms were established by separating livestock and arable farming.

After the 'Fall of the Berlin Wall' on November 9<sup>th</sup> 1989 and the reunification of Germany in 1990, everything changed: The cooperative farms were obliged to liquidate or to choose other legal forms of entrepreneurship. As a part of the transformation process, each individual member of a cooperative farm had to decide whether to stay or leave. When members decided to leave they received their land back plus a form of shareholder payment that was calculated on the base of land and assets they brought into the LPG and the years they worked. This whole process resulted in a high capital demand. And a lot of administrative work was necessary in order to complete the valuation of assets, drawing up contracts with employees and land owners, establishing development plans and sourcing finance for ongoing operations.

E.g. today there is a mix of farm companies averaging 714 ha, family farms averaging 129 ha and farm partnerships

averaging 465 ha in Mecklenburg-Vorpommern.

But not only the immediate changes in legal structures have been an enormous challenge. Simultaneously the former cooperative had to adapt to a new market and its rules: Before the reunification, cooperative and state farms "sold" their products at mostly fixed and costcovering prices (under all production conditions, state directed economy). Afterwards all grown structures had to adapt to the free enterprise economy nearly from one day to the other. The first years after the reunification were difficult and sometimes chaotic (e.g. in 1990/91 58% of all jobs in agriculture were lost).

The reunification in 1990 was a big entrepreneurial and administrative challenge for the agricultural sector in Eastern Germany but also very exceptional entrepreneurship emerged from it. Some German EDF farms and their owners are striking examples for that:

# **Going through the transformation**

AgroProduct GmbH from Saxony, represented by its manager *Thomas Wirth*, transformed former LPG structures to a limited company (in German: GmbH). They successfully managed the difficult, expensive long-term transformation process in terms of land, capital and

labour. For example they had to reduce the number of labour units from over 60 in the past to 23 today. These changes haven't been easy to manage. Today the farm is a successful business enterprise with about 1,000 high-yielding dairy cows (10,000 kg per cow per year).

# Moving to the East 25 years ago...

For Hayo and Anke Tantzen-Dobbehaus the reunification was a great chance. In 1991 they moved from Niedersachsen in West Germany to Mecklenburg-Vorpommern. In a very quick decision (1 week only) they decided to take a large entrepreneurial risk and buy a former cooperative farm that went bankrupt to establish their own dairy business. They started with 180 cows milking about 5,000 kg milk per cow per year. Working hard, growing steadily in small steps, investing carefully and building up trust and sustainable acceptance among the local community was their strategy in the past 25 years. Today they successfully manage 480 high-yielding cows in their large-scale and profitable family business and call this "new" place their home.

# ...and today

Exceptional entrepreneurial opportunities are still there in Eastern Germany as

# EDF Germany: Very good economic results in the CoP

In the EDF Cost of Production Comparison German EDF farms achieved very good economic results (see table 1). With 35.5 Euro Ct/kg ECM the average Break-even-point II was below the European EDF average (40.4 Euro Ct/kg ECM). German EDF farms in particular have cost advantages building (underlined by very good capital productivity) as well as direct and labour related cost. But it has to be taken into consideration that German EDF farms clearly exceed the national average in regard to size. There are also more largescale farms in the German EDF group than in many of the other European EDF branches (46 % of the EDF DE farms have 250 cows and above).

the example of *Erik Wensink* reveals. A few years ago *Erik* sold his family farm in the Netherlands due to the limitation of further developments and he developed a new large-scale dairy farm in Thüringen. Today he is milking about 2,000 dairy cows on two farms and is already thinking about future developments.

# **Managing volatility**

The next 25 years wont come without challenges and chances for dairy farmers as Jeremy Hill, President of International Dairy Federation (IDF), mentioned in his speech. He discussed the issues of milk market volatility and the demand and supply relation. He tried to find answers for two seemingly conflicting questions: "Where on Earth are we going to place produced milk?" and "How can we produce enough milk to meet the future demand of 4.2 billion consumers expected by the year 2025?" Currently there is an oversupply of dairy products in the world which results in low prices. However he also pointed out that there are 440 cities around the world expanding rapidly and which will for the base for a strongly increased demand for dairy products in the near future.

Jeremy Hill reminded the dairy farmers that they have to learn to cope with volatility. In addition it is vital to communicate with the public and to pay attention to consumer requirements for issues like food safety, sustainability and animal welfare.

# **Communicating with those around us**

Peter Berndgen from Agro-kontakt agents also drew attention to the importance of good communication for dairy businesses. Farmers have to be aware that communicating facts doesn't always help to win over the public. They should use marketing techniques and try to communicate plausible and reasonable opinions.

There is a huge gap between agriculture and the consumer and often a lack of understanding. School visits to the farm is a good way to educate children and their parents about where their food comes from and how it is produced. Public relations work is a management task for each business, but good PR work needs resources. He recommended €5.00 per cow per year be devoted to PR. Different farms will have different objectives for dialog. Farmers should consider which techniques to use for communication with business partners (B2B), public authorities or opinion leaders. Online campaigns can be very powerful, but often work best when part of a sector-wide professional campaign with central support. "We should not forget that the farmer is the only authentic and credible ambassador", said Peter Berndgen.

# Milk market development depending on volumes and expectations

Milk market volatility was also subject of the presentation of *Willem Koops* (ZuivelNL) who reported the LTO International comparison of producer prices for milk. His figures evidently showed that current milk prices paid by EU dairies are at their lowest within the past three years, €31 per 100 kg of standard milk. At the beginning of 2015 there was a slight positive turnaround on the market which few people anticipated. The main reason for that were signs of drought in New Zealand which lead to a feeling of tightness in the supply.

EDF CoP Benchmarks 2015	EDF Germany (30 farms)	EDF Europe (265 farms)
Herd size, farms with > 250 cows	47 %	37 %
Milk yield, kg ECM/cow/year	8,787	8,641
Labour productivity, kg ECM/hour	220	208
Land productivity, kg ECM/ha forage area	12,802	14,070
Capital productivity, kg ECM/1000 Euro tied up	2,992	1,814
Break-Even-Point II, Euro Ct/kg ECM	35.5	40.4

Table1: German EDF farms in figures, national branch averages vs. average of all European EDF farms, EDF Cost of Production Comparison 2015

At the same time there were discussions on slowing down the increase of milk production in a number of leading dairy countries within the EU in order to limit overproduction for the last quota season in regards to the pressured milk price. The market sentiment in March and April was determined by the expectation of increased milk production in the EU after the quota abolition and forced the price trend downwards. The subdued mood in the market was further fuelled by continued uncertainty about China's demand for imports. There was also little optimism about the lifting of the trade restrictions imposed by Russia in the short term.

The price level of various dairy commodities decreased sharply between late February and May 2015. This led to a further decrease in already relatively low milk prices. A decrease in spring isn't unusual, because in general milk prices drop in spring just to rise again in May. However, in 2015 average milk prices are expected to continue scaling down in May and June, which was confirmed by the announcement of further price reductions in the coming months for Arla and Friesland Campina. This is a worldwide trend. For example Fonterra (New Zealand) halfed its prices in comparison to the previous year. This is the first significant drop in the EU milk price since 2009 and therefore a new challenge for farmers to face.

# **Managing liquidity**

The difficult economic situation in dairy farms but also the plans for further growth in size and yield were important topics of the presentation held by EDF researcher *Steffi Wille-Sonk*. She pointed out the following things to consider when planning for the future of a dairy farm:

- → Over the past 9 years a severe increase in cash costs (absolutely and share of total production cost) was observed implying a higher risk for bankruptcy in combination with very volatile prices: How proficient is your farms liquidity management?
- → A number of farms prepared for the time after quota earlier and invested heavily in modernisation and farm growth. Did this impact the farms profitability negatively in the last years? Higher costs today for the

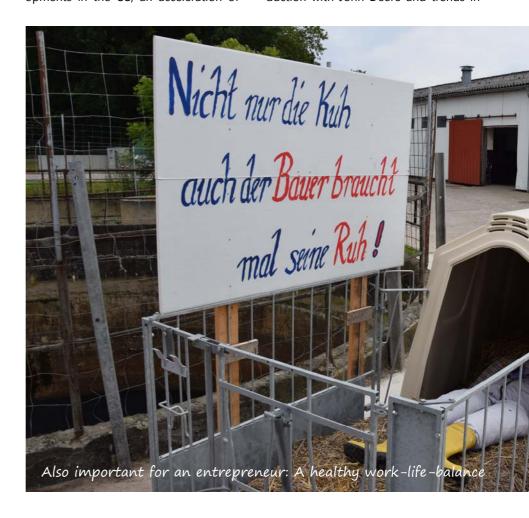
- profit of tomorrow? When do farms plan to be profitable?
- → Further increase of the milk yield per cow results in a more difficult to manage cow and production system: Is your farm able to cope with that (less KISS, more complexity)? How flexible are highly-intensive systems in volatile times?

# So, how to go on? How will dairy farming look like in the future?

Prof. Folkhard Isermeyer from Thünen Institute presented international trends in milk production and assessments regarding future developments. In his presentation 'The Future: Dairy Production in 25 years,' he claimed that Europe is still a major dairy region in the world, however other world regions became much more significant in the past two decades. In the foreseeable future, the world market will continue to expand. EU market prices will most likely remain closely connected to world market prices, and world market prices will show an upward facing trend. Herd sizes have grown steadily in the past though the EU dairy sector is still characterised by family farms. In view of the latest developments in the US, an acceleration of herd size growth in some EU regions might to be expected. Also economic incentives lead to bigger farms and to higher milk yields.

However, structural changes will not necessarily lead to a regional concentration of milk production in regions characterised by large-scale dairy farms. He discussed new challenges which the dairy sector will have to face too: 'factory farming' and its perception by the public; 'precision' dairy farming with the question of how to transform mass data into simple management tools; public relations of the dairy sector to answer NGO's campaigns which do not operate in a 'technical arena'. The dairy industry must take its critics seriously. Folkhard Isermeyer assessed that European dairy production has a good chance to compete successfully on a more liberalised world dairy market. Most dairy trends will not show sharp bends before 2040, yet, important choices have to be made before then, setting the course for the long-term future of dairying.

Looking from different aspects into the future of dairy production, delegates discussed future trends in forage production with John Deere and trends in



barn equipment and milking technologies with GEA Farm Technologies in plenary.

# Care for your life

But next to all those entrepreneurial challenges in economics, society and communication issues, a dairy farmer should not forget to care for his personal life. The great workload that comes with dairy farming and the many various decisions that need to be made can quickly become a personal burden. Marco Freiherr von Munchhausen touched this important aspect during his presentation. He explained vividly the important balance between work and rest and how we should plan the priorities first, allowing other tasks to fit in around them. He introduced the concept of the inner "Little Saboteur", explaining that by nature, human minds find excuses for laziness, negative thinking and bad differentiation between important and urgent tasks.

Take a time-out to reflect on life and what is important to you for at least 5-10 minutes per day, 1-2 hours per week and 1-2 weeks per year. And then identify your personal chances, take them and turn them into a success despite the challenges that are waiting for you in the coming month and years.



The German EDF farmers also opened their gates to the delegates to discuss about developments and challenges one on one. Visiting 6 large-scale farms was part of the congress, focussing on efficiency and cost control:

Milchhof Rodenwalde KG operated by the Greve Family: Already in 1972 Hans Peter Greve's father built a 100 cow free-stall barn in western Germany. Hans Peter, inspired by trips to the US and other countries, wanted to move to Denmark to start a new, larger dairy farm. However, with the fall of the Wall, eastern Germany was a became an opportunity. He and a partner took over a farm of a former cooperative with 300 cows in Mecklenburg. In 2004 they moved to Rodenwalde using the old buildings until they started to rebuild the barns in 2006. Today they farm 1,750 dairy cows yielding 10,455 kg, young stock of 900 animals, 876 ha of land and work with 27 employees. Freshly calved cows and cows with problems are milked twice a day in a small separate milking parlour, while main herd is milked three times a day in a 2x24 side-by-side parlour (7h milking + 1h cleaning). After 14 days half of the young stock is raised on a former dairy farm until they are old enough to return. Great attention is paid to breeding genetics, feeding and cow welfare. This means spacious cubicles, free movement, optimal nutrition with high-quality feed, which is grown on the farm, good care for animals and a peaceful atmosphere. Twice a year the the cows hoofs are trimmed. They feed the animals once a day, then push up the feed every two hours. Hans Peter says that in business it is necessary to not only think about the economics of production but also to pay great attention to the environment and the social sphere. The main challenge for him is to manage people, thus it is easier to manage cows. Employees can be successful only if they feel secure. In order to prepare the team optimally, they focus on mutual respect and purposeful training. Workers are involved in drawing up the roster and choose weekends themselves. Cow comfort always

comes first! 140 t of slurry is used for the 400 kW biogas plant. After the transformation in the biogas plant, the slurry is separated and the firm component is used as bedding material for the cows. The success of this business is due to an integrated approach, economically reasonable costs of production and disciplined workers.

Agrar GmbH Stolpe: Farm owner Bernd Pahl continues the family tradition of farming, now in the eleventh generation. In 2008 he sold his farm near Rendsburg in Schleswig-Holstein for personal reasons and began to farm in Mecklenburg and never looked back. There are a mixture of modern and old barns on the farm, where he milks about 450 dairy cows yielding 8,500 kg/ cow/year. The company employs 8 people. A new milking parlour is currently being installed, with completion due three weeks after the Congress. The old parlour was to small and this will allow further herd growth. The company also operates a 400 kW biogas plant. Solid components from the biogas plant are separated and reused on the farm. Getting established in a new region was one of the key challenges for Bernd Pahl, besides managing more employees. Currently the main goal of the enterprise is to reduce production cost, as milk prices are very low. In the future the focus will shift more towards increasing productivity of cows. Next year the plan to increase the herd size to 550 dairy cows and after Bernd's son Jochim finishes his studies they plan to even double the herd size to over 1,000 cows.

Agrofarm Lüssow eG: In the past, the farm was a state-owned agricultural production cooperative focusing on dairy farming. The barn, built in 1975, is a typical '1930s barn' often built in the former GDR. There was space for 1,232 cows on the farm and some hundred employees working for the cooperative, comprising three farms with 6,000 ha of land. This included the establishment of 83 flats with the accompanying structures like Kindergarten etc. After German reunification, the cooperative was split and a new

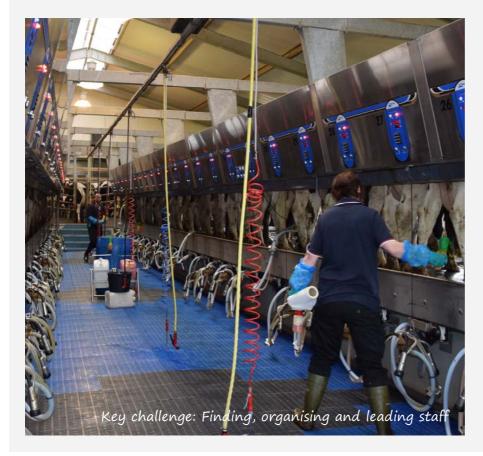
privately organised cooperative was founded, starting with 19 ha of land. Changes regarding the number of employees were drastic. Many former employees had to go for early retirement. Today, there are only 59 employees (26 for cattle, 19 for crop, 4 for administration and 10 apprentices), many whom have been there for more than 30 years. The 63 shareholders of the cooperative are only active workers or retired workers. Investors or Banks are not allowed to become shareholders. In 2011 the farm invested a lot of money buying more land (increasing the farm own land by 1,700ha in the past 25 years) and invested in the renovation and modernisation of the dairy barn, which houses now 850 dairy cows yielding 10,900 kg per cow per year. The cows are milked twice a day (7h each milking) in the 2x24 side-by-side milking parlour by two persons and one drover. The young stock is raised on a farm two villages away from Lüssow. Finding good employees is still a challenge for the farm. The main goal is to secure jobs. Further goals are to invest in a new dairy barn and milking shed and to buy the currently leased land. This will become more and more difficult due to increasing land prices. In 1991 land was € 1,000 per ha; today it is €30,000 per ha.

Henning and Astrid Helms GbR: In 1995 the Helms family sold their farm Schleswig-Holstein, moved to Mecklenburg-Vorpommern to buy a farm without animals or machinery, just buildings and 27 ha of land, bringing 100 cows with them. Over the next 20 years the number of cows on the farm increased to 380 cows yielding 9,000 kg/cow/year. Today the farm has 462 ha of land and a 75 kW biogas plant. However, the Helms family does not want to increase the number of cows further until the next generation is ready. They want to work on improving the performance of their existing herd. There is great attention to detail regarding the comfort of cows. Henning Helms says 'the secret of success for the farm is a balanced approach to investments. Invested funds and the profits have to go together. Always invest carefully, looking at the return.' Labour productivity and staff motivation also play a great role in dairy farming. Ideas for the future include: increased cow comfort for dry cows and in the calving area, building a new calf barn within the next two years, increasing milk yields, trying to decrease costs and using chances in the future to enlarge the farm with focus on farm land.

Gut Hohen Luckow: The farm has exist-

ed for more than 600 years with more than 1,000 ha of land. In 1945 it became a nationally owed estate with 265 employees managing livestock on 2,400 ha of land. Since 1994, the farm is privately owned, starting with 300 cows, 720 ha of land and 40 employees. Step by step the farm was enlarged and modernised. Today they have about 2,250 cows yielding 10,500 kg/cow/year (in three different barns), 1,500 young cattle and 2,000 ha of land where they mainly grow wheat, barley, corn and grass. The farm now has 65 employees; 17 employees focus on the field work (e.g. making silage & hay, manure spreading, etc.); 34 work within the dairy enterprise. Two people work in each of the two parlours; a 2x20 and a 2x12 side-by-side milking parlour (88% of the herd is milked twice a day and 12% is milked three times). Two people look after the calves. The farm built a 390 kW biogas plant in 2011 which uses 120 to 130 m<sup>3</sup> of slurry and 4 to 5 t of poor corn silage to produce 3 million Kwh of electricity (double their own consumption). The slurry is separated before entering the biogas plant and the firm component of the slurry is used as bedding material for the dairy cows. The construction of 14 x 3,4 MW wind turbines further contributes to the energy production. The farm philosophy has the cows and the employees as the centre of attention in the daily work.

Meiners & Hobel GbR: The farm on which farm owner Eckhard Meiners grew up in Lower Saxony was taken over by his youngest brother. Eckhard took the chance of the fall of the Wall and bought the former agricultural cooperative of Bützow in 1991. He started with 170 dairy cows in old tie-stall barns and an old milking parlour out on the fields. They began to restructure the old buildings and to build barns, slurry lagoons and a 650 kW biogas plant where 8,000 t of corn silage and 20000 m<sup>3</sup> of liquid manure are used. Today a total number of 19 employees manage 700 ha of land and look after 640 dairy cows plus young stock. The dairy cows are milked in a 2x20 side-by-side milking parlour by two persons giving 11,300 kg per cow. Eckhard's wife Dorothee is a vet and next to their activities on the farm she later opened a veterinary practice on the farm premises. They decided to





use only heifers raised on the farm as replacements for the dairy herd, so growth has not been as fast as on other farms but it was rather stable. The change from a small family farm to a business with more than 20 employees was a big challenge for the family. Today the constant growth requires permanent adaptations and permanent rethinking. In the future they are intending to build a new barn for the young stock and to optimize the existing older barns. They plan to increase the number of dairy cows up to 1,400 cows at the current premises.

Further development will be decided together with the next generation.

Some delegates had the chance to visit the *Leibniz Institute for Farm animal Biology* (FBN), a well-known research institute which operates modern Cattle Experimental Facilities, and the *State Institute for Agriculture and Fishery of Mecklenburg-Vorpommern* (LFA). Both institutions share a campus in Dummerstorf. The newly built Experimental Cattle Facilities (2012) can hold 86 dairy cows and have different areas for lactating and calving cows. Roughage

and water intakes are recorded continuously for each animal through the use of calibrated feed bins. Behavioural physiology studies can be conducted in a separate area. The bio-acoustic test room is both soundproof and sound absorbing. For special research studies the Greenfeeder (measuring methane emissions) was installed. Research about the biodiversity of farm animals under changing husbandry and production conditions is essential for the farm animals' sustainable management, production and use—today and tomorrow.



EDF would like to thank everybody that helped organise and contributed to the 2015 Congress, in particular the German EDF branch, the Thünen Institute and Birthe Lassen. A big thanks also goes to the Agribusiness Partner supporting this event:

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Tru räv mat

# EDF Team

# **Impress**



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