19 IFMA
TRANSFORMING AGRICULTURE

IFMA 19

Congress 2013, POLAND

Warsaw University of Life Sciences

21-26 July, 2013

FIELD TRIP

Dairying

Warsaw University of Life Sciences – SGGW

FNEA
FOUNDATION SCIENCE AND EDUCATION FOR AGRI FOOD SECTOR

International Farm Management Association
ifma

WNE
Faculty of Economic Sciences
– WULS-SGGW –

9:00 – 10:30 "DANONE Sp. z o. o." – Dairy Processor

Company:

DANONE Sp. z o. o.

General information:

Company name – Danone Sp. z o.o.
Headquarters location – Warsaw
Ownership form – private
Organisation's legal structure – sole shareholder: Produits Laitiers Frais est Europe
Markets serviced – Poland, Lithuania, Latvia, Estonia, Kaliningrad; exports to the following countries: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Romania, Russia, Slovakia, Slovenia, Spain Serbia, and the USA.

Danone's employment and assets

Year (December 31st)	Employment (persons)	Assets in total (PLN)
2010	1373	3 274 663 882
2011	1327	3 584 125 388
2012	1281	3 477 256 655

Source: Danone's data.

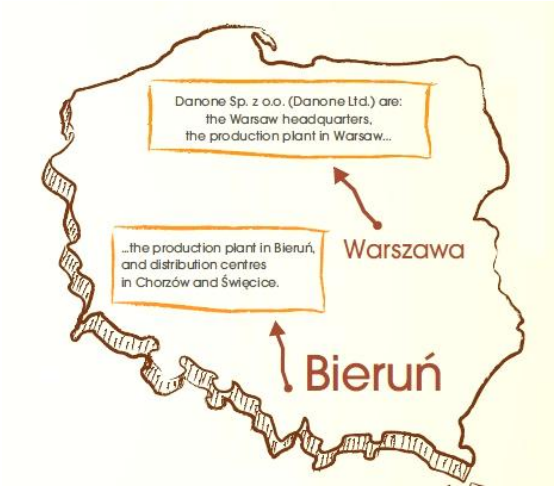
Danone's History

Danone's origins date back to Barcelona in 1919, where Isaac Carasso, based on co-operation with the Pasteur Institute in Paris, began production of fermented dairy products. The factory was named Danone, an acronym of the name of his first son Daniel and the number one (Dan for Daniel, One for first Daniel Carasso). The first yogurts with the Danone logo were sold in pharmacies in Barcelona.

The DANONE Group was formed in 1973, after the merger of BSN – (a manufacturer of glass containers and producer of soft drinks) and Geravis Danone (a food producer). In 1994, BSN changed its name to Groupe Danone (present name), adopting the name of the group's best-known international brand. Danone has become one of the largest food companies in the world.

Danone – Polish market

Danone has been part of the Polish market for the past 20 years. The first products with the Danone logo, imported at the time, made their way into Polish shops in 1990. The consumers' enthusiasm for the brand spurred Danone on to launch local production two years later, at manufacturing facilities leased from Zakłady Mleczarskie Wola (Wola Dairy Production Plant). The company bought the self-same plant in 1994; one year after that, Danone took another production plant on board, this one in the Silesian town of Bieruń. The company began the production of kefir and sour cream. Today, Danone products includes yoghurts, cheeses, food produce for children, and products supporting good digestion and immunity . All yoghurts and cheeses produced in Polish factories are made with using only Polish milk.



Danone Sustainable Agriculture

Our main goal is to obtain good milk for our products: milk which comes from healthy and well-kept cows, is safe and healthy, is produced with care for the environment. These elements provide a comprehensive approach to the development of Danone's milk suppliers. The DSA program is a part of the business strategy 2012-2016 and one of the Pillars of Sustainable Development Plan.

The program is a part of all three elements of business management: mission, vision and strategic objectives.

Through the program strategic objectives for the period 2012-2016 are realized: love the brand (taking care of the quality of raw materials that affect the quality and advantages of our products), as well as excellent processes (sustainable production at each stage of the product).

DSA project was developed with external partners.

DANONE SUSTAINABLE AGRICULTURE

<u>is a comprehensive program for Danone milk producers aimed at:</u>

- development and stabilization of dairy farms by means of increased economic efficiency
- ensuring production of the highest quality milk from cattle kept in conditions of welfare
- improvement of the quality of life for the farmers and their families
- reduction of the negative environmental impact of agricultural production

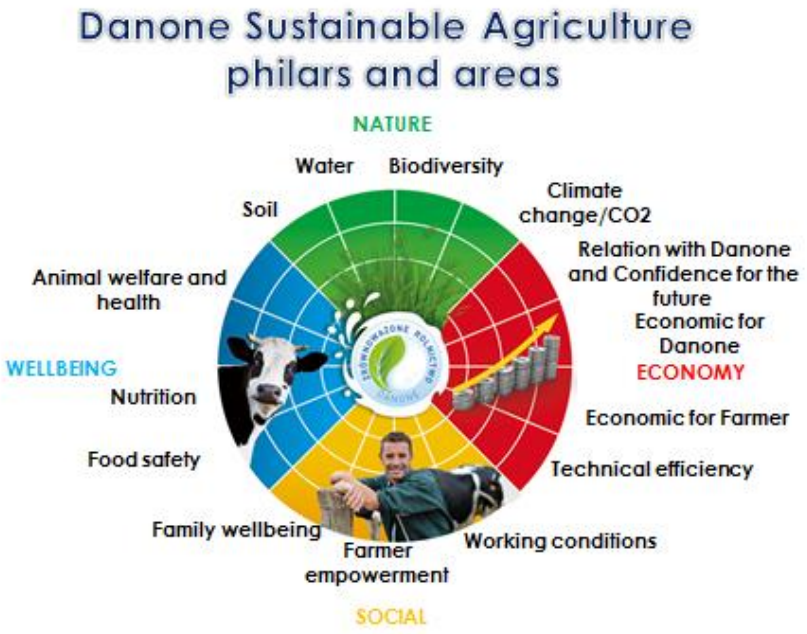
DANONE SUSTAINABLE AGRICULTURE

is a set of practices and standards which, when introduced into a farm, will help achieve sustainability of milk production, making the farm coherent with the legal requirements and ready for the challenges of tomorrow

TOMORROW STARTS TODAY

The program is a set of measures and forms of support for Danone producers encompassing 4 pillars (COMPASS). Each of the pillars includes a number of areas.

Pillar: Welfare and quality (areas: milk quality and safety, nutritional value, animal welfare)
Pillar: Environment (areas: soil, water, biodiversity, CO_2 emission)
Pillar: Economics (areas: economic efficiency, Danone's economic efficiency, technical efficiency, development of the farm and its future)
Pillar: Society (areas: work-life balance, social development, safety at work)



Welfare and quality – in this pillar we focus on:

- registration, tagging and transportation of dairy cattle
- feed purchase documents
- feed distribution systems in farms
- feed production and storage conditions
- milking hygiene
- milk storage
- milk quality
- access to electricity in case of power grid failure
- utilization of animal by-products
  and
- cattle and calf husbandry in the context of:

- avoiding hunger and water deprivation – by ensuring proper feeding conditions for animals, including access to fresh water and suitable nutrition

- avoiding discomfort – by ensuring suitable surroundings, including a shelter and a comfortable resting zone

- avoiding pain, injuries and diseases – by prophylaxis, prompt diagnostics and appropriate treatment

- avoiding fear and stress – by ensuring proper conditions and treating animals in a way which will not give rise to any sort of suffering

- freedom to express natural behavior

Environment – in this pillar we will focus on:

- biodiversity – preservation of endangered species and natural environment
- protecting arable land from erosion
- crop rotation
- soil analysis
- monitoring of energy, fuel and water consumption
- CO_2 emission
- application and storage of mineral and natural fertilizers
- application of plant protection products
- waste segregation and waste record-keeping
- participation in agri-environmental programs

Economics – in this pillar we will focus on:

- record-keeping of farming activities carried out by the farmer
- level of farm's development
- investment in farm's development
- expertise-building in the area of estimating and generating income from milk production
- developmental goals of the farm and their implementation

Society – in this pillar we will focus on:

- health and safety at work
- farmer's involvement in social initiatives, education of children and youth in the area of milk production, exchange of experiences with other producers
- satisfaction for farmers and their families from milk production
- hobbies, leisure time organization

12:30 – 14:00 Marketing Group "Łaciata" and "Krasula" + dairy farm

Farm: Radosław Kownacki

Location

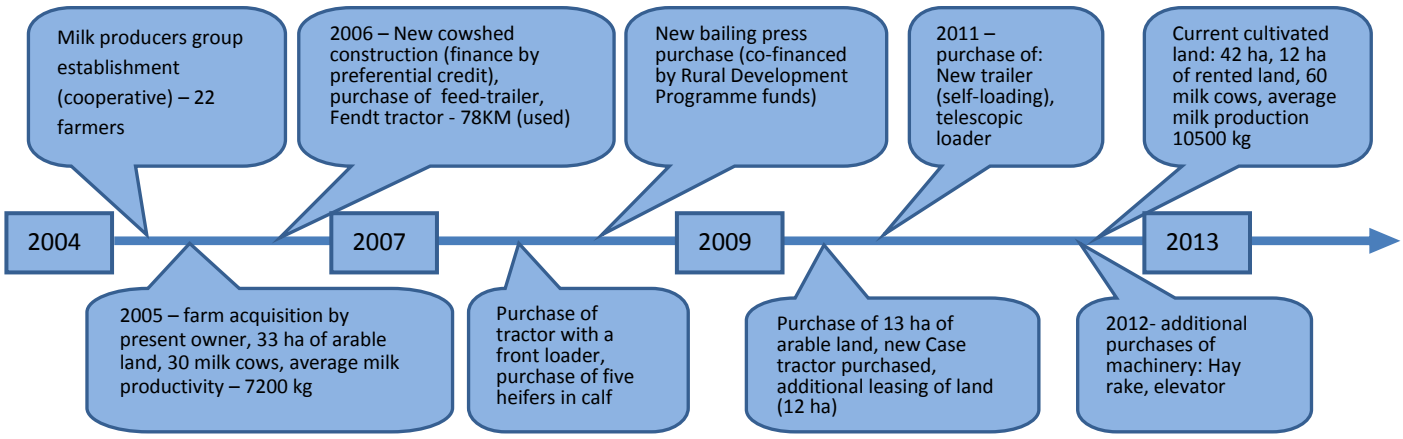
Ojrzeń Municipality is located in the Southern part of the Ciechanowski District, which is situated in the North-western part of the Mazovian Voivodship. Ciechanowski District is located in the "Green Lungs of Poland". Arable land constitutes 66% of the territory of the municipality. The quality of land is good: about 33% of agricultural land falls in the second and third quality classes, and about 35% in class IV. The remaining 32% of agricultural land is of poor quality land – classes V and VI (in the soil quality classification there are six classes distinguished in Poland: classes I and II - very good and good quality; classes III and IV - medium quality, classes V and IV - poor and very poor). The vast majority of agricultural land is owned by individual farmers. Agricultural activity in the district is undertaken on 6,471 farms. The area structure of the district is diversified. The average size of an individual farm is approximately 11.3 hectares and this is constantly increasinging. Cultivation is dominated by cereals (consumable and industrial) and livestock – by dairy cattle.

Farm history

Radosław Kownacki's farm is located in the town of Łebki Wielkie and has been owned by the Kownacki family for several generations. The current owner has managed it since 2005. Farm production is dominated by dairy cattle. The owner is a member of a group which encompasses 32 milk producers (Radosław Kownacki's father was one of the founder members in 2004). Formally, the group operated as a Milk Producers' Cooperative – "Łaciata". The farmer was also the initiator of the producer group "Krasula" for smaller milk producers.

The milk producer group was legally established in 2004. However, the beginning of the group dates back to the mid-90s. The farmers understood that by working in a team they can achieve more than acting alone. The core of the group were the farmers who collaborated with a dairy factory in Winnica. The Dutch from Campina have invested in this dairy factory from the mid-90s. They showed Polish farmers that production of high-quality milk, cowshed modernization and expansion of herd size are crucial factors for milk cattle producers. The year 1998 was a turning point in the producer group history. The Russian financial crisis caused a down turn in the volume of imported Polish dairy products. The dairy company in Winnica terminated contracts with some farmers whose farms were located at a long distance from factory (too high transportation cost of milk). Producer group members decided to change to the "Zoryna" dairy company in Kutno. It cemented the cooperation between the farmers. Mr. Kownacki was one of the leaders of the informal group that time. Then the farmers went to Bakoma. Since 2002, they have sold milk to the company "Lacpol" which has nine manufacturing plants across the country.

Farm timeline



Production scale

Family farm (no. of family members / no. of family members, which work on the farm)	7/2
No. of cattle (total):	125
No of dairy cows	60
No of heifers (+ young stock)	65
Agricultural land (ha): own land + rented land	54 ha total (42 own + 12 rented)
Milk production in 2011 - total	550.000
Milk quota for year 2011/2012	520.000
Milk production per cow (in 2011)	10586
Breed of cows	HF
Concentrated feed usage (per cow daily)	8-9 kg

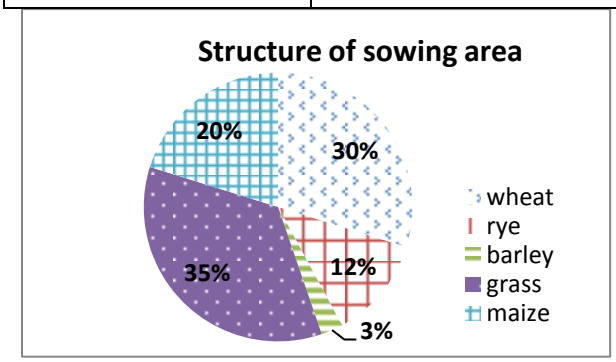
The income generated by milk production accounts for about 80% of total household income. The activity is carried out within the producers group (Cooperative of Producers) which associates 32 farmers.

Milk cattle productivity (average per one cow)

Milk production (kg)	FAT (kg)	FAT (%)	Protein (kg)	Protein (%)	FAT + protein (kg)
10586	420	3,96	360	3,4	780

Yields and fertilization

Specification	*Average yield (t/ha)*	*Estimated level of NPK (kg/ha)*
Wheat	*6*	*170 kg NPK*
Winter Barley	*6*	
Hybrid rye	*7*	



Main assets/resources of the farm

- Arable land - 42 ha, III i IV quality class (*in the soil quality classification there are 6 classes distinguished in Poland: classes I and II – very good and good quality; classes III and IV – medium quality, classes V and IV – poor and very poor)*
- Cowshed
- Milking parlour– fishbone type
- Fully equipped with agricultural machinery
- 60 milk cows, about 120 dairy cattle
- Workforce: 2 family members (full time), additionally 1 – 2 hired workers for milk duties

The main problems/threats (in the eyes of the farmer):

- corn rootworm (Diabrotica), which occurs in other regions of Poland and may seriously jeopardize the cultivation of maize (an important cattle feed)
- high (still growing) costs of concentrated feed

16:00- 17:30 Wojciech Żukowski Family Farm

Farm: Wojciech Żukowski

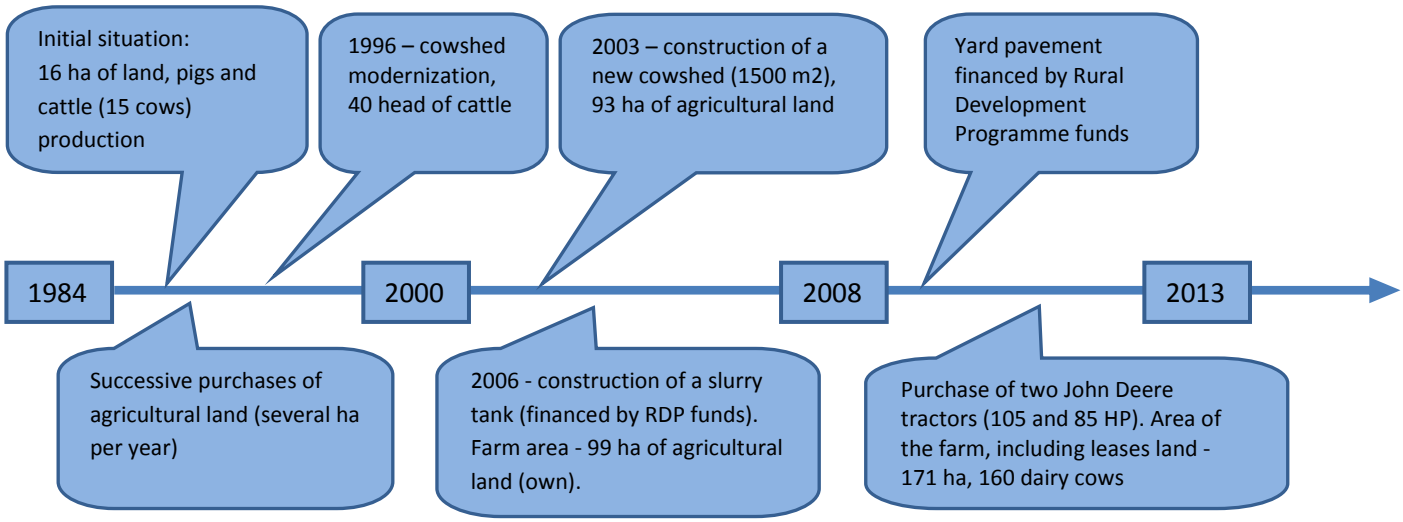
Location

The Gzy Municipality is located about 70 km North of Warsaw, in the Northern part of the Pułtusk District of the Mazovian Voivodship. The local economy is based on agricultural production. Agricultural land constitutes 89% of the municipality area. The area is dominated by rather good soil (81.4% of land – good soil) which creates favorable conditions for agricultural production.

Farm history

Wojciech Żukowski's farm has existed for several decades, but its present history dates back to 1984, when it was acquired by the current owner. At that time the farm was 16 ha in size and it dealt with pig and cattle production. Currently, the area of the farm is made up of 103 ha of own land and 68 ha of leased land. The farm is specialized in the breeding of dairy cattle (it has stopped pig production).

Farm timeline



Scale, direction of production, yields

- Annual milk sales – 1.16 million litres of milk
- Annual sales of other products: 30 heifers, 70 calves, 150 tonnes of grain
- The agricultural area - 171 hectares (including 28 hectares of permanent pasture)

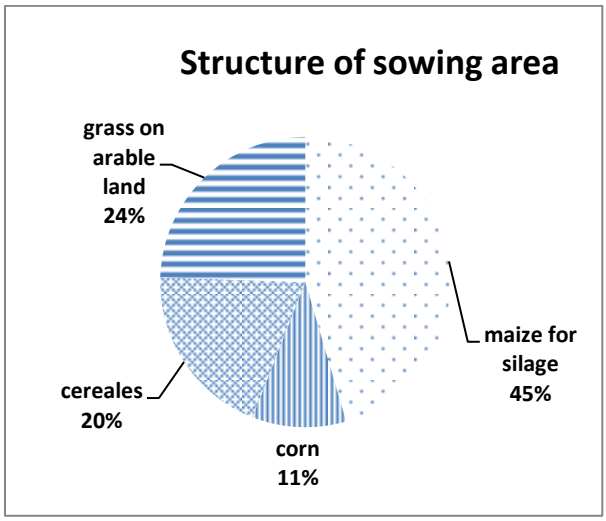
- Average milk productivity of cows – 8000 litres/year
- Bull calves are bought (partly) by the owner's son who is the producer of beef cattle

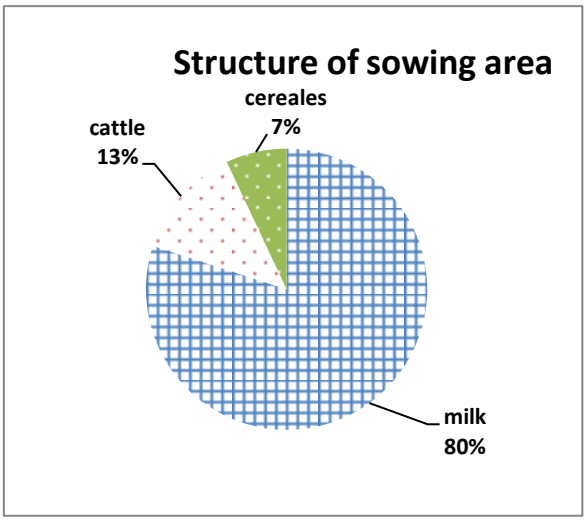
Parameters of milk produced in 2012

Average number of milking cows	Average yield per cow					
	milk kg	fat kg	fat %	protein kg	protein %	fat + protein kg
159,8	7930	315	3,97	279	3,52	594

Crops Yields

Specification	Average yield (t/ha)	Estimated dose of NPK (kg/ha)
Wheat	5,5-6 t/ha	180 kg NPK
Triticale	4,5-5 t/ha	
Maize for silage	60 t/ha	
Corn	10 t/ha	





Main assets of the farm

- Agricultural land (own) - 103 hectares of ~ 30% of III quality class (pretty good), 70% of IV quality class (good soil)
- 3 cowsheds with a surface area of 1500 m2, 400 m^2 and 180 m^2
- 150 dairy cows (HF breed)
- milking parlor for 20 cows
- 5 tractors (3x John Deere with – engine power (from 80 up to 180 HP), New Holland (120 HP, MTZ
- Level of employment:
    - 3 family members permanently + 1 seasonally
    - 3 hired workers who are engaged in milking process and feeding the cattle

The main problems/threats:

• mastitis - the inflammation of cows' udder tissue - (changes in the level of bacteria) - caused by hired employees' inaccurate milking operations

• Lack of drainage - especially during the spring

• Weeds in the field crops

Main achievements: farm area enlargement from 16 to 103 hectares

Plans for the future:

- purchase of the leased land
- the scale of production increase
- farm aesthetics improvement