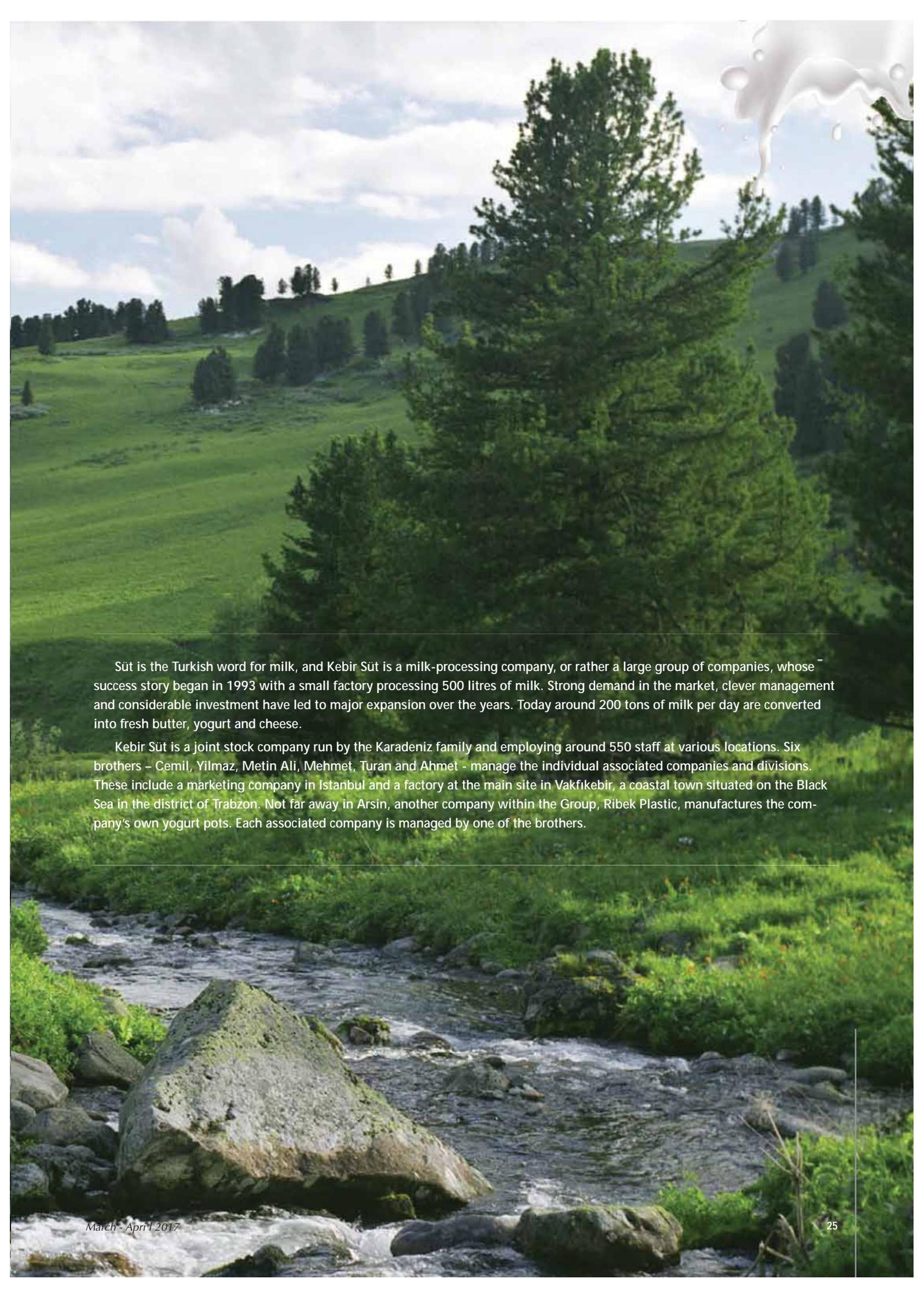


Diary products "Made in Turkey"

Kebir Süt - This is the story of six brothers operating very successfully in the Turkish market with their butter, cheese and yogurt. Thanks to two MULTIVAC R 245 thermoforming packaging machines, the family business has been able to design its packaging procedure significantly more efficiently and with a high degree of flexibility, while at the same time increasing its productivity. Now it wants to open up the international market as well.





Süt is the Turkish word for milk, and Kebir Süt is a milk-processing company, or rather a large group of companies, whose success story began in 1993 with a small factory processing 500 litres of milk. Strong demand in the market, clever management and considerable investment have led to major expansion over the years. Today around 200 tons of milk per day are converted into fresh butter, yogurt and cheese.

Kebir Süt is a joint stock company run by the Karadeniz family and employing around 550 staff at various locations. Six brothers – Cemil, Yilmaz, Metin Ali, Mehmet, Turan and Ahmet - manage the individual associated companies and divisions. These include a marketing company in Istanbul and a factory at the main site in Vakfikebir, a coastal town situated on the Black Sea in the district of Trabzon. Not far away in Arsin, another company within the Group, Ribek Plastic, manufactures the company's own yogurt pots. Each associated company is managed by one of the brothers.

There are 246 staff employed at the main site, 40 of which work in Sales and Marketing alone. Products from Kebir Süt can be found in 65 Turkish towns and cities – in the regions around the Sea of Marmora and the Aegean, in Central Anatolya and throughout the region surrounding the Black Sea. According to Sales Director Utku Karadeniz, the radius of product sales is due to be extended to more than 80 towns and cities in the coming years.

Many national supermarkets stock the products, for example A101, BIM, Migros and local food retailers in Ankara, Bursa and other locations. Catering firms and hotels such as Hilton and Sheraton are among the company's customers and are highly prized as important business partners. The regional market is served through direct sales, while for more distant towns and cities use is made of distributors.

Good prospects

Sales and Marketing is therefore very active at Kebir Süt, since parallel to this, demand in the domestic market also continues to grow. With a population of around 80 million, rising incomes and a per capita consumption of dairy products that is relatively low, even today, the Turkish market offers very interesting sales potential. Yogurt in particular has a long tradition in Turkey. The German word for it is also borrowed from the Turkish yogurt – it means fermented milk. But although the manufacture of yogurt can look back on a long history, only the latest technology, state-of-the-art machines and a wide range of monitoring equipment are used at Kebir Süt for each phase of the production process. This allows for consistently high levels of quality and taste to be maintained.

The company is certified to ISO 22000 and ISO 49001 and has implemented a food safety management system as well as a quality management system.

“A controlled production process and packaging procedure are absolutely critical for us. There must also be absolutely no interruption of the chill chain,” emphasizes the Production Director, Utku Karadeniz. As a production engineer by training, he has been employed at Kebir Süt for eight years. In this time he has worked himself up to his present position from yogurt production via the pasteurisation, cheese and butter departments. He is responsible for raw materials and the individual processing stages of the products, right up to delivery to the supermarkets and retailers.

Controlled production process

For example, in the case of the fermentation process, in other words the production of yogurt by means of lactic acid bacteria, the whole process must be completely monitored. During this time, the lactic acid bacteria such as lactobacillus bulgaricus convert the lactose into lactic acid, whereby the milk turns sour, curdles and becomes viscous - and this gives rise to the characteristic taste and aroma. The milk, which is changed with the starter cultures, is filled directly into the yogurt pots and undergoes an incubation period. “During this phase we are constantly measuring the ph value with a ph measuring instrument, since we want to achieve a defined value,” says the production boss.

The acidification of the milk begins from a ph value of approx. 5.5 and should ideally be ended at a ph value of

4.65. Afterwards the milk is cooled. “Milk is a living product, which can of course spoil easily and must therefore be processed and packed quickly and carefully – for us this means 200 tons of milk per day in a single shift,” adds Utku Karadeniz.

High demands on the packaging machine

Since February 2015 a MULTIVAC R 245 thermoforming packaging machine has been used to pack the various products. “If you ask anybody in Turkey which company is the best in the market for this equipment, you will always hear the name MULTIVAC. The company from the Allgäu region of Germany is the leading manufacturer of thermoforming packaging machines worldwide and is therefore the first choice for us as well,” says Utku Karadeniz.

Having said that however, recommendations and information were sought before the decision was made, and the requirements of the new packaging solution were defined in advance. “We wanted the best solution. Because packaging is part of our production. If the packaging machine breaks down for just one day, we have to stop everything. We are processing highly sensitive raw materials and can not simply compensate for production the next day,” explains the Production Director.

The greatest expectation lay in the efficiency, versatility and productivity of the machine. The declared aim was to produce the different products and pack formats on just a single packaging line, to increase the reliability of the whole process and to achieve the desired output.

R245

R 245* THERMOFORMING PACKAGING MACHINE

Cut-off length (mm)	< 700
Forming depth (mm)	< 150
Output (cyles/min)	< 15
Hygiene standard	MULTIVAC Hygienic Design™

* Depending on the equipment

Exclusive on MULTIVAC

The R 245 thermoforming packaging machine offers the ideal preconditions for this: as a MULTIVAC model that can be fully configured, it is equipped with modules, which provide maximum flexibility and quick conversion to other pack formats. Among these are MULTIVAC's proven 'drawer' system for the simple change of forming and sealing die parts, as well as hinged side frames and a film quick-change system. Even complex pack shapes can be produced at high output. The operation of the R 245 is particularly ergonomic, due to the machine being equipped with the MULTIVAC HMI 2.0 user interface, which is operated intuitively. The R 245 also has heated side frames, which make the workplace in the cool production environment more pleasant for the staff, who are manually filling the pack cavities.

Special pack shapes

A total of five different product types in three different formats are currently packed on the R 245 at a cycle output of 10 units per minute, including butter in four weight ranges and Kasser cheese in one weight range. The butter in particular provided a special challenge for the packaging experts at MULTIVAC. It is formed in a semi-conical shape and was packed previously in a vertical, rectangular pack. As the Production Director says: "The pack constantly fell over and was difficult to handle. But the experts at MULTIVAC developed a perfect solution for this problem - in the form of a conically shaped vacuum pack with a flat base. The pack therefore supports the shape of the product, the whole thing looks much better and there are no

creasing, while the shelf life has been extended significantly due to the extraction of the air."

From the very beginning, everyone at Kebir Süt was extremely impressed with the capacity of the machine. The machine fulfills all expectations and is matched perfectly to the packaging procedure. The support and design advice from MULTIVAC also brought plus points. As Production Director Utku Karadeniz says: "It did not matter, what we brought into the conversation - the packaging specialists from MULTIVAC were open to everything and looked for needs-based solutions on our behalf. Examples of this were the pump arrangements and the pack designs."

The training of the staff was also particularly well received. At Kebir Süt it is now the case, that after a short period of instruction a normal employee (rather than a highly qualified colleague) is able to operate the machine reliably and safely. There is also process reliability with the R 245 thanks to integrated sensors such as the vacuum sensor, which the production boss regards as being extremely helpful.

Ambitious objectives

At Kebir Süt they are proud of what they have already achieved. Productivity has improved significantly, processes have been accelerated and format change is performed quickly. The new packs underline the company's claim to a high level of quality, while being well received by consumers and providing extended shelf life for the sensitive products.

But ambitious objectives are also on the agenda. Sales Director, Utku Karadeniz,

casts an outlook on the future: "Thanks to the MULTIVAC machines, we have been able to design our processes much more efficiently. We now want to go further down this path by bringing our entire range of equipment to the very highest standards that apply in Europe, while employing fewer people in the processing of these sensitive products. By investing in a modern range of machines, we create enormous competitive advantages for ourselves." Production Director, Utku Karadeniz, adds: "I am sure that MULTIVAC will also find the right solution for us, should we wish to expand our capacity threefold over the next three years."

The first major steps in this direction have already been taken. Since the present location is too small to be able to expand the product range and production dramatically, two new factories are already being built. In Balıkesir the production area of 17,000 to 17,500 m² will be almost three times the size of the present location. The second complex is taking shape six kilometres away. It is intended solely for the production of butter. Due to the very good experience with the R 245, investment has been made in a new thermoforming packaging machine of the same type.

As Utku Karadeniz says: "We are already one of the leading brands of butter in Turkey. But our objective is to expand the radius of Kebir Süt to 81 towns and cities in Turkey and also to the neighbouring countries. We see great potential internationally for our products." ♦

