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**Farm focus:  
Tönsfeuerborn**

- > 500 cows
- > 250 ha maize
- > 170 ha grassland

# LONG-CHOP MAIZE SILAGE

## Added value for the farmer and his cows

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Felix Tönsfeuerborn is a true professional when it comes to dairy farming. With his 500-head dairy herd producing an average yield of approx. 11,000 kg of milk per cow per year, he runs one of the top farms in the German federal state North Rhine Westphalia. He understands that only healthy cows are able to perform at this level, which is why he is always on the lookout for innovative ideas and technological improvements. During a study trip to the USA, he came across long-chop maize silage and decided to try it for himself in Germany.

This silage is chopped to long lengths of up to 30 mm and the kernels and cobs are shredded by a special type of cracker. Following a period of intensive research in consultation with Tönsfeuerborn, the local contractor decided to purchase a special long-chop maize cracker in 2013. The advantage of this component is that it uses a novel shredding technology to chop the maize to lengths of up to 30 mm whilst finely shredding the kernels. According to the literature, this type of processing improves the digestibility of both the fibre and the starch.

### Improved feed efficiency

Having used this type of silage for a good two years, Felix Tönsfeuerborn can certainly vouch for its benefits because it has boosted his herd's feed efficiency. Indeed, maize silage has proved to be the ideal feed for his cows. Unlike grass silage which is harvested in several cuts during the season, the quality of maize silage is consistent throughout the entire year, and this has a positive impact on milk yields. Offering a better effective fibre structure, this silage has enabled him to reduce the amount of straw in the ration from > 500 g to 0–100 g per cow. The total ration comprises approx. 60 % forage (2/3 maize silage + 1/3 grass silage) and 40 % concentrate (CCM, rye meal, rapeseed cake, rapeseed meal, molasses + brewer's grains). Since he pro-

**Compressibility of long-chop maize silage is just as important as it is for short LOCs.**



**„MAIZE SILAGE IS THE IDEAL FEED FOR MY COWS.“**

Felix Tönsfeuerborn

duces GM-free milk, he uses oilseed rape components instead of soya. “And the cows’ health has not suffered – on the contrary!” says Felix Tönsfeuerborn. This is obvious from the condition and health of the cows in the shed, and also backed up by the latest figures. The farm also leads the way in terms of output with an average lifetime productivity of 46,000 kg and 4.2 lactations per cow. According to the federal state’s Milk Recording Association (Landeskontrollverband), the average lifetime productivity of cows in this state is 27,157 kg (2014 milk records).

For Felix Tönsfeuerborn, it is crucial that the cows remain productive for a long time in the interests of cost-effectiveness. As well as high lifetime productivity rates, after switching to longer LOCs the Tönsfeuerborns have virtually no problems with ketosis or abomasal displacement

in newly calved cows. Another formula for success on the farm is the introduction of a more intensive feeding regime in the first 20 days after calving.

**No compression problems with long maize silage chops**

The newly calved cows are bedded down on generous amounts of straw; they are closely monitored and their temperature is taken regularly. This enables the farmer to respond promptly to the smallest signs of illness. Furthermore, during this period the cows are milked four times a day – in the mornings and evenings immediately before and after the other cows. Repeated milking stimulates the metabolism and results in a higher initial yield and better udder health. Felix Tönsfeuerborn discounts the often-quoted disadvantages of long-cut silage, such as poorer compression in the clamp or increased feed selectivity. In

**TOP SILAGE FOR BALANCED RATIONS**

„The use of maize silage with 15–30 mm chop lengths is beneficial to the rumen of dairy cows, and bulls too, and makes it possible to reduce the use of feed straw. Newly calved cows in particular clearly benefit, showing improved levels of fitness. The key aspect in the production of coarser chop is to ensure that the kernels are optimally conditioned. Modern corn crackers are able to do this, although it is very important to discuss requirements with the contractor to ensure that the ground speed, cracker settings and compression are correct. This type of silage is stable and provides a good foundation for a balanced forage-based diet.“

Uwe Dewenter



Cows get more structural fibre from long-chop maize silage.

his experience it is not difficult to compress the longer chop. He puts this down to the fact that all the stalks are shredded lengthways, leaving no round pieces (so it doesn’t tend to spring back up after clamping). Neither is feed selectivity an issue. Calves which receive the same TMR as the dairy cows do tend to leave the longer components, although this doesn’t seem to harm their digestion. In addition to the dairy herd, the farm also has a biogas plant which has been in operation since 2006. The longer chops do not appear to have adversely affected the digester either. All in all, Felix Tönsfeuerborn is very happy with the new chop regime. The good health of his dairy herd has convinced the farmer of the benefits of long-chop maize silage so he plans to stick to this method in future. The positive effects on animal health speak for themselves.



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