

Automatization on Prins Family Farm

A.M. (Bram) Prins, the Netherlands

Farm Description

Prins Family Farm is situated in the Northern part of the Netherlands. The business exists with three operations: (1) a 300 cow dairy farm, (2) biogas digester producing 540 KW electricity per hour and (3) a consulting business. Time and labour within the enterprises consists of the dairy with 3 LBU, the biogas plant 1 LBU and the Consulting business 1.5 LBU (Labour Based Unit). The farm has 300 milking cows and 160 replacements. Total farm acreage is 265 Ha of which 235 ha is owned and 30 ha arable land is rented. Milk production per cow at the moment is 8000 kg with estimation for 2010 being 8600 kg of 3.60% protein and 4.30% fat. The returns per kg of milk currently are 25-27 €cts and the milk-price for 2010 is estimated at 34 €cts/kg of milk (excl VAT).

Mission Statement

Stimulating the production of food and services according to the needs and wants of society and myself.

Ideal conditions for farming are a good balance between Labour-productivity, Labour-time and Labour – pleasure. The balance between Profit – People – Planet is also important for the sustainability and continuation of the farm and its entrepreneurs. We do not have a farm outside the Netherlands and we are positive we are staying in the Netherlands. Our family and social life is important.

Decision Making Process

In 2006 we were at a cross point of making decisions. We had to renew all the facilities for our dairy farm. We did intensive research in our (international) network about possibilities for milking cows with robots. After half a year we made the decision to switch to automatic milking. We had decided already upon an automatic feed system. Our choice was the Pellon from Finland and delivered via SAC (Mother company of GALAXY). Feeding cattle is labour intensive after formulating the right ration per cow. In all cases you need to have control over the cows to make sure they have indeed eaten the right balance and calculated intake. We did and do believe in the combination of automatic milking and feeding cows.

Reasons for Automatization

A better social life, less foreign labour and possibilities for better management are just a few reasons to automate. For the farmer with larger herds it gives the opportunity for cow management instead of herd management. In Holland with its high input costs, a high milk production per cow is favourable.

For the cows, automation is more animal friendly because of living in freedom (they themselves can choose eating and milking times) and the possibility for having them in herds of a maximum 65 cows (in this way they recognize each other and there is a constant social hierarchy as a result). Also it is easier to replace each other during weekends, holidays and sickness.

Facilities & Economics

We planned for a complete new facility for the cows which gave us the advantage of a specific new lay out of the buildings. This meant we could save costs by lesser square meters per cow, but not lesser space per individual cow.

Due to our wishes concerning the lay out, we had to choose a 2-box system. At that time this was available via Galaxy (RDS Future line).

We had a very restricted budget available of no more than 800.000 € and for this amount of money we had to invest in new buildings, barn equipment, milk robots and a feed robot. We were successful in this so the investment per LU (Livestock unit) is now $800.000 / 240 = 3.350$ € (this includes 120 pens for young stock) Compared to facilities with a 24 rotation parlor and feeder wagon with wide feed lanes we are at the same price or lower.

The costs per year are comparable with other farms with the same amount of cows, but this is not easy to compare, due to the fact we are working with precise budgets per month. We are keen on restricting our costs and ask the question: What's the real reason for our lower processing costs. At the conference I will present our budget system.

Growing Pains

In the beginning we had severe problems with our cows and ourselves, because we bought 130 heifers from Germany and Holland. This together with our own herd at that time 120 cows (we had to sell 60 cows during the transition from the old to the new buildings) So two different herds and full new facilities the first time was a disaster and in 2008 we had a replacement rate of 40%. This had nothing to do with *Automatization*.

In 2009 the total situation stabilized and both farmer and cow got used to the new situation. Together with an integrated knowledge team of nutritionist, hoof trimmer, vet and economic advisor we made a strategic plan for every half year with clear goals, charging ahead but allowing times for evaluation. This resulted in much better technical results. With help of the data delivered by our system we can now determine the right protocols for each of us and the advisors. Technical results are now focusing on a replacement of 25% in 2010 and 20% in 2011. The increase of protein is foreseen of 0.10 %. Lowered costs and less labour are very important.

We are convinced we made the right decision in choosing this system and the proof is shown by better technical and economical results. It is a totally different way of managing cows and the question can still be: "What is the real reason for our improvements?"

For sure: our partners, kids and society are happy now.

Future Plans

The near future will be further improvement of our management system by installing the 6th robot for specific groups of cows, such as heifers or cows in need of extra care. This gives the possibility for having the other 5 robots fully employed with about 65 cows per robot. This will result in another decrease of the replacement rate and a higher milk production with same costs per cow.

We would also desire more data for having good analyses, but easier to understand. For example cow-motion and digi claw registration has to be easily compared with each other. This has consequences for feed rations. Integrating available data from different systems is a challenge for the near future.

Our conclusion: More freedom for cow and farmer.