

# Indonesian success based on good management of cows and staff

Indonesia has one of the lowest per capita consumption of milk figures of any country in the world, but demand for milk and dairy products is rising with improved consumer buying power.

This situation is further affected by the fact that some time ago the Indonesian government suspended its beef quota from Australia, which resulted in a big increase in the price of beef in Indonesia. Many dairy farmers and co-operatives cashed in on this by slaughtering their dairy cows and this caused a drop in milk production!

## Emergence of larger farms

To some extent the emergence of larger dairy farms in Indonesia could save the day. International Dairy Topics recently visited P.T. Ultra Praternakan Bandung Selatan Farm, which is owned by the Indonesian Ultra Jaya Group – a multifaceted corporation which has dairying among its interests. At the farm we met its English born general manager, Jeremy Hockin. This name might well be familiar to you as Jeremy spoke at the global 'Alltech 500 Elite Dairy Summit' in Ireland.

Jeremy joined the operation in December 2009 and within three weeks was off to Australia to purchase the farm's first shipment of heifers.

By June 2010 some 300 animals were being milked in Indonesia. The following



**Elephant grass is cut by hand at a rate of 40 tonnes per day.**

June saw this number rise to 700 and by the end of 2012 some 1,700 cows were being milked. Many lessons were learnt from the first placement, which meant the second and third heifer placements ran much more smoothly.

Unfortunately, import controls mean that only Australian animals can be imported into Indonesia which greatly limits choice.

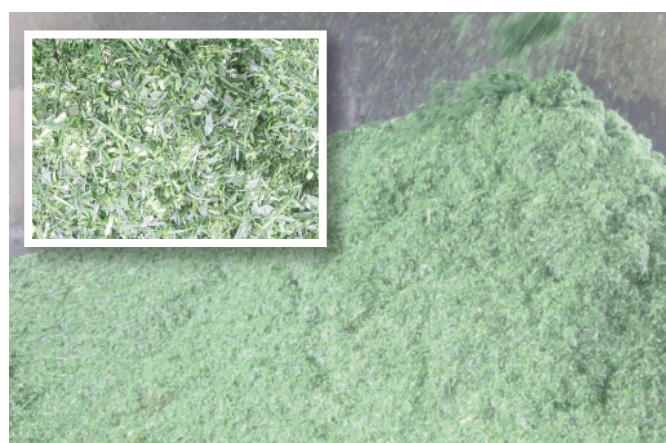
The farm is located at an altitude of 1430 metres and has an all year round constant day time temperature of 25-28°C and night time temperature of 14-18°C. These are

perfect conditions for both the cows and the farm staff. In addition, the location is favoured by an artesian supply of high quality water.

Currently, the farm cuts 40 tonnes of elephant grass per day by hand. This grass should be 120cm high when cut because if it is harvested higher than this its digestibility and protein content are both dramatically reduced. This growth can be achieved within three weeks of the grass having been cut. It is cut by hand because machinery

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## Elephant grass is fed into the chopper, left, and converted to cut grass for use in TMR.





**Mixing the TMR.**

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damages the root stumps and this significantly increases the growing time for the next cycle.

This grass is then chopped and becomes a fresh ingredient of the TMR which the farm manufactures on site for its herd. Other ingredients include concentrate, silage, soya and a premix. The mixing trucks move regularly between the cows and feed production facility. When they arrive at the latter a Wi-Fi connection between the formulation office and the mixing truck gives the truck the mixing instructions for the next batch of TMR.

Two concentrates are used with the high specification one being the only one used in the high yielding (average 36 litres per day) cow TMR, whereas both concentrates are used on a 50:50 basis for medium yielding cows and the low specification concentrate is used for low yielders (24 litres per day). Replacement stock receives 25% of its concentrates as the high specification product.

The premix is an interesting blend of components. Firstly, there is 100g per cow per day of seaweed and added to this is 8g of Hi-5 (a mix of five organic minerals) and 2g of Sel-Plex (both from Alltech), 150g of limestone, 2g of copper sulphate, extra vitamins A, D and E, 10g of Yea-Sacc and a mycotoxin binder.

An Indonesian idiosyncrasy, which favours employment, is that imported ingredients are imported in bulk, then bagged in the docks for onwards shipment to the farm – where they are then tipped out to effectively create a bulk delivery!

Another fact of life in Indonesia is that the bureaucracy associated with imports means any importation will take weeks. So, when it comes to spare parts the farm has to carry a much greater stock of spares!

Calves are born every day and receive 2.5 litres of colostrum within an hour of being born and another 2.5 litres in the next six hours. Heifer calves are kept, bull calves are sold and can command prices over \$US250.

Calves receive milk replacer, via an H & L milk dispenser, for whichever comes first – 50 days of age or when the calf is consuming 2kg of dry matter a day.

Access to water and concentrates is available and access to forage starts at six weeks of age. Until three months of age all receive concentrates and TMR and, thereafter, just TMR until eight months when they go onto a ‘bulling ration’ until they become pregnant. Then they go onto a pregnancy ration until three weeks before the calf is due.

**Batch rearing of young stock**

At birth each calf is ear notched and tested for bovine viral diarrhoea (BVD). If positive, calf, mother and grandmother are tested within 28 days and, if again positive, they are culled. So far, this outcome has occurred just half a dozen times out of over 1,500 calves tested indicating a good level of BVD freedom.

Following historical problems with clostridial infection, calves are now vaccinated with a 10 in 1 clostridial vaccine at day old, three weeks and in the transition pen. Thereafter they are boosted annually. Vaccination against brucellosis also occurs.

A key component in the health strategy is to closely monitor cows after calving by daily checking their temperatures, looking for normal ruminal movements and chewing of the cud. Any untoward signs here trigger



**Mix instructions are received via Wi-Fi.**

off a full clinical examination and, if appropriate, treatment.

Mastitis is well under control with a rolling mean incidence of under 0.5%. Interestingly, rain, which is a daily occurrence in the rainy season, recently got into two of the sheds that house the milking herd and a ‘spike’ in mastitis cases was seen that was associated with wet bedding.

Typically, the herd has a mean somatic cell count of 220,000 and a total bacteria in milk count of 10,000-20,000 cfus per ml. This compares very favourably with somatic cell counts which are high because of chronic mastitis which is not treated to enable the milk to be sold and total bacterial counts of >2 million that are often seen from the small local herds.

An additional reason for the latter is thought to be poor storage and cooling of milk on the smaller dairy farms.

When it comes to the actual milking there are two parlours. The main one is a 48:48 DeLaval Rapid Exit and there is a smaller unit that is used for collecting colostrum and milking mastitic cows so that their milk can be processed separately.

Milking is an ongoing 24 hour exercise with cows being milked 3.2 times a day. Staff work two day shifts (7.00am to 7.00pm) followed by two night shifts (7.00pm to 7.00am) and then have two days off. This six

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**Left, heifers happily eating and, right, cows relaxing and cudding, which is a good sign!**





**Left, the main parlour and, right, the smaller parlour for collecting colostrum and milking mastitic cows.**

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day cycle means that over time the days off rotate through the week, which the staff like, and Jeremy is adamant that nobody should be milking cows seven days a week, week in week out.

Hoof care is important and two specially trained members of staff 'manicure' every cow once every 100 days. This pays dividends because when we visited the herd there were just two animals in the hospital pens with hoof related lameness.

### Taking care of reproduction

On the reproduction front all first heats receive a single dose of sexed semen. If a heifer cycles again she gets a dose of conventional semen and if she cycles a third time she is put to the bull. Cows receive three doses of imported semen, three more doses of local semen and then the bull.

When it comes to measuring reproduction, Jeremy uses a new pregnancies a day figure as his preferred indicator that everything is proceeding satisfactorily. With an average of four (currently 5.9) a day he knows that he is maintaining the size of his milking herd with some spare animals to replace his worst performers. All animals are routinely pregnancy checked in a special facility where

they can be scanned or traditionally assessed in homemade, purposely designed, walk through stalls.

Each activity on the farm from feed formulation through to milking and pregnancy checking is recorded and the data is collected on the two central management computers in the farm office. Whether Jeremy is on or off site, he receives over a dozen reports every night which keep him in touch with everything that is happening on the farm.

All the milk produced goes to the Ultra Jaya dairies and virtually all of it ends up as UHT products, although some goes to Kraft for local cheese production or Unilever to be sold as Boavita products. The UHT milk flavours include internationally popular ones, such as chocolate and strawberry, plus some uniquely Indonesian flavours such as sweet tea (the kotak) and a green bean flavour.

Ultra Jaya must be confident in the Indonesian dairy sector because they are now developing a much bigger project (ultimately 16,000 cows) in Sumatra. They want to learn from their experiences at P.T. Ultra Praternakan Bandung Selatan Farm to get this mega dairy farm off to the best possible start. Staff for this project are already being trained at the existing farm. So, what were the key ingredients for success? After minimal reflection Jeremy told us – quality staff and quality forage!

Modesty did not allow him to add the quality management of cows and people!

He also highlighted other factors such as chalking all cows for heat detection, ensuring as many cows as possible are in calf within 100 days of calving and getting the best inputs for the farm at the lowest price rather than getting the cheapest inputs.

Currently, the farm has some 200 staff including 60 full time staff, of which six are veterinarians, 30 daily staff and 100 who are paid by the kg for jobs such as off-loading ingredient lorries or cutting the elephant grass. In addition, the farm regularly has 20 students who are prospective future employees for either farm.

### Key costings

When it comes to costings the key yardstick of feed cost as a percentage of milk price is running close to a very respectable 50%. However, salaries and wages are a worry as government policy is creating significant pay rises – approaching 15% this year.

So, the time is coming when head counts will become more important. If this means reductions then the cows will not get as much attention which could impact on productivity and reproductive efficiency to the detriment of the business.

A challenge for the future! ■

### Attention to detail.



### Good quality staff accommodation.

