



### William Hoggan

He runs a large-scale 'western' style unit, which is managed, successfully, with limited automation and lots of staff



Number of cows:	<b>3,500</b>
Quantity of land:	<b>60 hectares</b>
Forage yield:	<b>70 tonnes DM/hectare</b>
Daily yield:	<b>24kg/cow/day</b>

Grass and maize silage is harvested by hand for 3,500-cow herd

# Small farming on a large scale

Farm manager William Hoggan runs a large and unique Western-style dairy unit on Java. Land is scarce on Indonesia's most densely populated island and the growing 'plots' are also difficult to access with machinery.

text **Tijmen van Zessen**

A Suzuki pick-up truck drives onto producer William Hoggan's weigh bridge. It is fully loaded with fresh maize plants. The driver is a local farmer from the area. He is one of the many who provide William with forage. "After weighing on this bridge, the farmers drive to the silage clamp and the maize is then chopped until it is suitable for making silage," explains William, who emigrated from Scotland.

He is not amused by the quality of his maize silage. "Some farmers take the cobs from the plants, that collect in the bottom of the truck. These are popular on Java for human consumption. We also need to make sure that they do not put heavy items on the bottom of their trailer, so that they can charge me for a bigger load."

William is the manager of a large dairy unit in western Java, Indonesia's most populated island. The company is owned by the dairy company Ultra Jaya, the country's fourth-largest milk buyer. Seven years ago, the company took the

initiative to provide a steady milk supply. William had experience as a farm manager in Saudi Arabia, on a unit with 15,000 cows. He was assigned the task of directing the new company.

### Staffing levels

The unit comprises a herd of 3,500 adult animals and is located on a hill in the Pangalengan district, just south of the million city Bandung. A western form of dairy farming is quite unique on Java. Most 'producers' milk three or four cows by hand. In a way, William's company is not much bigger. Many of the native farmers in the area provide his unit with forage or are employed there. He has a total of 150 people working for him, 60 of whom work among the cows in the barn. The others – 90 people in total – are busy with the manual harvesting of grass. The small and somewhat scattered plots are unsuitable for agricultural machinery. They are on a steep slope and difficult to access. The larger plots are intended for rice cultivation, which

is given priority in Indonesia. William gets fresh grass delivered daily. Grass growth on Java is not comparable to that of average grassland in Europe. The 60 hectares of hillside surrounding the farm is completely covered with elephant grass – a crop that can grow up to 60cm high. Thanks to the tropical climate, the grass grows continuously. Approximately 70 tonnes of dry matter per hectare can grow annually – that's six times as much as grassland produces in the UK. "We take between six and seven cuts a year, typically when the crop is 40cm tall and quality is at its best. But we depend on manual labour to cut it and can't always prevent the plant from being too mature at harvest."

### Daily ration

William uses a feed mixer to prepare the herd's daily ration. He mixes 25kg of grass and 14kg of maize per cow per day, plus ingredients such as soya, wheat flour and a by-product from maize corn that is released in ethanol production. "The ration is good for maintenance plus between 23 and 24 litres per cow. But that's too low," he says. "I actually set 28 litres as a lower limit. But we are having fertility problems and the capacity of our 2:40 rapid-exit milking parlour is also a limiting factor. We manage 2.5 milkings per cow per day. If it was more, we'd produce more milk." With such a huge herd, the milking parlour is running 24/7. The employees work 12-hour shifts, with three people in the milking parlour

High production: Ultra Jaya collects milk from the unit several times a day





*Feeding calves: milk is fed through an automatic vending machine*

and three moving cows. “My employees prefer a 12-hour working day, because after four days they have an extra day off.”

Ultra Jaya collects milk several times a day, but the unit has storage capacity for up to 30,000 litres. Producers are not paid a premium for good milk quality or higher fat and protein. “But we are penalised if tests show that there are antibiotics in the milk,” adds William.

Protocols are set in stone for most tasks on the unit. Cows with mastitis are milked through a separate milking parlour. A cow’s feet are trimmed three times during her lactation. The third time coincides with drying off. Heat detection is not automated. William uses tail dye or chalk as to help him spot heats. “We have a ‘breeding’ gate to conveniently separate cows for insemination or other treatments.”

*Moving stock: after weaning, staff move calves to the next management group*



*caption*

Fresh calvers are housed in two groups. The first three days after calving they are in the ‘colostrum group’. These cows are checked daily, including their body temperature. From the fourth day to the third week of lactation they are in the fresh cow group. These animals also receive extra attention.

### **Fertility issues**

William wants to improve herd fertility. “I want to reduce the number of involuntary culls. The herd replacement rate is more than 25% and, typically, poor fertility is the cause.”

Poor fertility usually has several causes, but William believes that ration sorting is a huge factor in his herd. “The cows pick the concentrates from the ration and get fat at the end of lactation, resulting in metabolic problems in the following lactation,” he says.

“LDAs are a huge issue. During the past month we’ve had 10 and some were even in late-lactation cows.”

William believes that better quality forage and more thorough ration mixing should see fertility improve.

“But good quality forage is difficult to get hold of on Java. We have looked at the possibility of importing lucerne from the US, but that is too expensive. At the moment, I am looking for land in the area, with the intention of growing forage maize myself.” |