

# Pioneering once-a-day milking

**Brian Hilliard**  
Teagasc Dungarvan

**Mark Trimble**  
Teagasc Portlaoise

**T**here is growing interest right across the country in switching to milking cows once a day (OAD) for their entire lactation. It is not an entirely new concept. Many farmers practised the “strategic” use of OAD when the milk quota system was in place. OAD for the entire lactation has been practised in New Zealand since the 1950s and also in France for many years.

The first piece of advice Brian gives to those who contact him about going OAD, is that “if you are not doing a good job with twice a day (TAD), then don't go near OAD.” Good management is as important with OAD milking but at least you have a little more time for management.

## The transition

The switch requires two to three years' planning in most cases. Poorly performing cows, cows with high SCC, cows with bad udders, etc, should be culled. The first year on OAD will see the biggest hit to yield – approximately 25% in volume and about 20% in milk solids. Friesian cows and heifers/first-calvers are the hardest hit.

Consider milking your cows for a two-month period on OAD before changing over to OAD full-time. This will identify cows unsuitable for OAD that should be culled/replaced.

Breed or buy the right type of cow before you start and minimise the number of first lactation animals so as to minimise the hit for the first year on OAD & have SCC under control. Carrying an extra 10% of cows is a tactic to compensate for the drop in yield.

After about five to six years of OAD milking, yields should stabilise at about 6% to 10% lower than TAD as

cows that do not perform well on OAD will have been culled. Over time, replacements from the better OAD cows will be entering the herd.

New Zealand research data on OAD shows that Holstein Friesian-Jersey cross cows seem to adapt better as they have less volume but a higher fat and protein % – less stress on the udder.

Having said that, I know of one member in the group with a Holstein-Friesian herd who delivered 417kg MS/cow last year (ICBF – Co-op report).



Consider milking your cows for a two-month period on OAD before changing over to OAD full-time

## Profit

I have looked at the Teagasc eProfit Monitor figures for some members and for the better operators who are milking OAD for a number of years, their profits are just as good and better than many at TAD milking. How can this be?

There are a number of factors that will compensate for the drop in yield (which lessens over the years). Milk price will be up to 5c/l higher due to the higher fat and protein percentage and there will be a reduction in costs due to:

- Lower veterinary bills, cows are healthier, better body condition and lameness is practically eliminated.
- Better body condition, fertility/conception rates – less straws used.
- More compact calving – more days milking.
- Better longevity/lower replacement rate – fewer first-calvers (higher yields with more mature cows).
- More time to manage and look after animals better, calf-rearing, grassland management, etc.
- Lower electricity charges/detergents, etc.



## Research

In New Zealand, 5% of dairy herds are now full-time OAD and the number is growing. A total of 54% of herds make meaningful use of OAD, between milking first-calvers OAD, milking OAD in the spring, when there is a feed shortage and those in full-time OAD. Also, much research has been done in New Zealand (and France) on OAD milking.

# Why milk OAD?

There are a number of reasons or a combination of reasons why people have gone over or are thinking of changing over to OAD. These are:

- Shortage of labour.
- Lifestyle – less stress, more time off, more time with family/ children growing up.
- Off-farm job.
- Cows having to walk long distances/steep land/fragmented farms.
- Cows having to cross busy roads (where underpass not possible).
- Succession of a son or daughter to stay milking is made more attractive.
- Milking OAD can make it more feasible for someone who does not have a successor to stay milking rather than retire.
- Where a second herd can be established on an outside farm, milk them OAD with the home herd milked TAD or OAD.
- Anyone doing a reasonable job at OAD will definitely not return to TAD milking.



• Brian Hilliard will be manning a stand at the Moorepark open day.



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In 2005, Waterford discussion group members visited a research station in Brittany trialling high yielding Holsteins on OAD. In 2006 we visited New Zealand where we met researchers/advisors who had done a lot of work on OAD and visited a 700 cow OAD herd in the South Island that was making more profit after switching from TAD to OAD.

Teagasc, Moorepark are hoping to set up a new research programme on OAD milking.

**ABOVE: After about five to six years of OAD milking, yields should stabilise at about 6% to 10% lower than TAD.**

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## OAD farmer profile Michael John Delaney

Michael John Delaney, a member of the POADII Discussion Group, milks 100 cows at Ballykealy, Durrow, Co Laois. He started milking his cows OAD in 2013 due to the fragmented nature of his farm. Mark Trimble, Teagasc, Kilkenny, is his advisor.

At the time, he farmed 38.5ha in five blocks. With just 2.8ha at the yard, and the other four blocks only accessible by public road, the cows were on the road almost all the time. This was becoming more of an issue due to the extra labour required to move the cows along the road, (1km to the furthest block), as well as the inconvenience to other road users in the locality.

Michael says this came to a head in 2012. "Something had to change or it was a case of getting out of cows." He decided that milking OAD was the best solution and so, in 2013, the herd was milked OAD for the first time. He has the cows in the yard for milking at 7.30am each day so as to avoid school buses on the road. It takes him two hours and 40 minutes to milk in his 10-unit parlour, an hour longer than morning milking under TAD.

In year one, the herd took the expected hit with a drop in milk volume of 28% and a drop in yield of milk solids of 23%, as can be seen in Table 1.

After the initial drop, the herd recovered well in 2014 and 2015, with yields being only 4% lower than the last year milking TAD. The poor spring of 2016 hit production in that year. The cows had to be housed for two weeks in April due to a shortage of grass; they peaked at only 17 litres while indoors and never fully recovered from this. This year, the cows peaked at 21 litres so this should result in a recovery of some of the gains that were made.

Michael knew from the start that his herd would not be best suited to OAD milking and so, in 2013, he made a change to his breeding policy



Michael John Delaney milks 100 cows in Co Laois.

Table 1: Herd output comparison

	2012 TAD	2013 OAD	2014 OAD	2015 OAD	2016 OAD
Farm size (ha)	38.5	38.5	38.5	38.5	45.5
Herd size (number of cows)	87	88	92	95	102
Stocking rate (LU/ha)	2.85	2.87	2.92	3.06	2.78
Yield (litres/cow)	4,880	3,491	4,278	4,304	3,917
Fat %	4.02	4.33	4.44	4.41	4.40
Protein %	3.43	3.67	3.68	3.69	3.72
Yield (kg MS/cow)	375	288	358	359	328

and switched from using exclusively British Friesian bulls to New Zealand Friesians.

Research in New Zealand has shown that this type of cow is better suited to the OAD system. Considering the gains in output in 2014 and 2015 were achieved by the same type of cow that he milked TAD, Michael expects that with the introduction of the new genetics to the herd in 2016, this will improve the progress of the herd in the OAD system.

### Good fertility

Michael says that keeping cows in calf was always a problem on the farm despite good fertility in the herd. He puts this down to the amount of walking on the road the cows had to do and the energy it required.

In 2012, conception rate to first service was 33%, this rose to 73% in

2017. Michael had an empty rate of 20% in 2012 and this has dropped to 5% in 2016. Also, first to third calvers were carried over if not in calf to keep numbers up, an added cost to the system.

The reduction in empty rate and in lameness (a reduction of 75% in hoof-paring) has given Michael much more control of what to cull for instead of having to cull empty cows and for lameness.

Michael joined the POADII Group in 2016 and has found it a great help. Even though they only meet four times a year, the fortnightly group report and the Whatsapp group are invaluable to measure progress and get queries answered quickly.

He expects to produce 400kg/MS/cow in the next few years as the New Zealand Friesians become more established in the herd.

## National Discussion Group

In 2015, a discussion group was established for farmers who had been milking OAD for a number of years and for those who were planning to do so. The group is facilitated by Brian Hilliard, Teagasc, Dungarvan. With the help of his dairy advisor colleagues throughout the country, we identified clients who were milking OAD.

Now we have a group consisting of

36 members, 32 of whom are milking OAD full-time.

Geographically, they are located from Sligo to Wexford and from Wicklow to Cork. Herd size ranges from 50 to 250 cows.

From their ICBF-Co-op reports, 12 of the members (40% of group) delivered over 300kg MS/cow in 2016, the average of those 12 being 360kg/cow. The Glanbia average for herds milked TAD in 2016 is 372kg MS/cow.

The members decided to name the group Pioneering Once A Day [milking] in Ireland (POADII). The group provides

great mutual support and information/backup for the members.

Every two weeks during the main production months, each member sends in current data figures to chair Gillian O'Sullivan who then emails a group report to those who respond.

The group have had four meetings this year, the first one indoors in the Teagasc office, Thurles, in January. Our last meeting was on the farm of Michael John Delaney in Laois.

We have two more farm meetings planned, one in July in Mayo and the final one in October in Limerick.