

OVA-ACHIEVERS

Winter 2017
Issue 6

Winter 2017

With Ova-Achievers having its tenth birthday this year, I thought that, as all proud parents should, I would evaluate where we are and what the plans are for the future. I am also wondering about the best way to grow my child into a productive member of the community. While I might be the father of Ova-Achievers, I would like to give the credit due to all the clients and staff who have contributed to the development of my baby. It takes a village!

2017 successes

The influence of Ova-Achievers can be seen in the LIC premier sires team. Of the 12 ET bulls in the team, 9 came from our clients – 75% isn't a bad effort given that Ova-Achievers was around four years old at the time that the embryos were collected. The top 30 RAS list is similar with six of the ten ET bulls coming from Ova-Achievers' clients.

The LIC young forward pack bulls show the same picture with twelve out of seventeen young ET sires coming from Ova-Achievers' farmers.

These are achievements that I'm very proud of.

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2016 Yearling MOET results

We have been following up on last season's yearling flush results. With the global movement towards working with younger animals (both male and female), yearling flushes are becoming more common. Over the last four years, we have seen yearling numbers increase from fewer than ten to around 100 in the last year. Given this increase, it is important that we monitor the results.

We monitor three main areas:

- Number of embryos produced per donor – target 3.5 embryos per flush
- Pregnancy rate of fresh embryos into recipients – Target 60%
- In-calf rate of donors following flushing – Target 90%

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Ova-Achievers is now offering both MOET and TVR services – Yearlings and cows can come to our centre for TVR as well as us offering our usual MOET services on-farm and on-centre. See page 4 for more details.

027 290 2268
www.ova-achievers.co.nz

2016 Yearling MOET results continued

Number of embryos collected

The number of embryos produced per flush in 2016 can be illustrated in a couple of ways.

- Number of good embryos per donor programmed = 3.1
- Number of good embryos per collection = 4.5

The difference is that 32% of donors failed to produce embryos in a session – mainly due to not responding to the programming drugs.

Best result – 80 embryos from 12 donors – Average 6.7

Worst result – 1 embryo from 6 donors programmed – disaster

Challenge for 2017 is to Increase the number of donors who respond to FSH

Because the drug cost for yearlings is much lower than for cows (~\$200), and because we don't charge for flushing animals who don't produce any good embryos, the cost of the failed animals is relatively low – except for the calves that you don't get.

Alternatively, we could just ignore the data on the donors that didn't respond – that would make our stats look much better.

Pregnancy rate of implanted embryos

For several years, we have been concerned that the pregnancy rates achieved from yearling flushes is lower than that achieved from flushing mature cows. This has been borne out in this year's results. Our returns from our pregnancy survey has given us a pregnancy rate of only 45% on all implants. This was significantly reduced by one farm who had a poor pregnancy rate on a large number of embryos early in the season – if we remove this, we end up with a more creditable rate of 55%. The trend is also obvious that embryos from donors flushed early (August) held poorly compared to those from donors flushed in October – although one farm again confuses this.

These numbers illustrate why I am skeptical of claims of average pregnancy rates of over 40% from IVP embryos derived from yearlings. MOET embryos are fundamentally more robust than IVP embryos and pregnancy rates are much higher. This is well documented internationally, not just in NZ.

Goal for 2017:

To get a better understanding of what factors affect pregnancy rates from yearling flushes – is it donor maturity, seasonal or recipient factors.

Pregnancy rate of donors following flushing

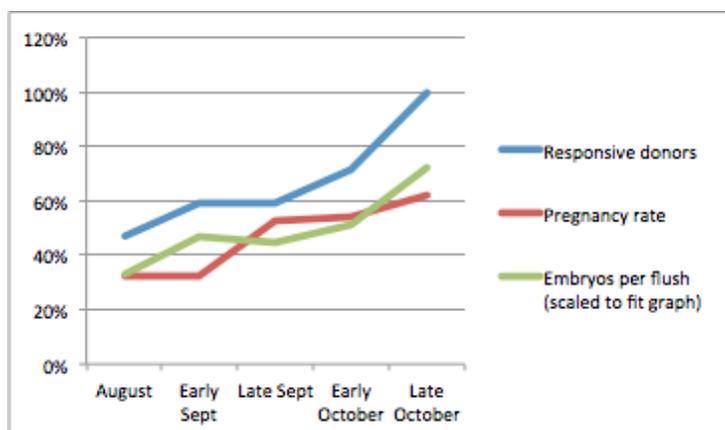
We do have very good news here. Of the 55 donors who have had their in calf rates reported, 52 are in calf. This gives an empty rate of under 5%.

Of the three donors who went empty, and two others who got in calf late, becoming cystic was the main reason given. However these cysts were easily treated once they were identified.

So: In summary, we feel like we performed very well in getting donors back in calf once flushed, ok in embryo numbers but had disappointing pregnancy rates early in the season. One option which we will recommend this year is to flush heifers closer to the AI start date and focus less on giving them time to recover before AI. The graph below illustrates clearly how dramatically the results improved as we allowed heifers more time to develop before flushing them.

We got more embryos from donors, fewer failures and embryos held better as the season progressed.

Graph showing relationship between donor responsiveness, pregnancy rate, embryos per flush through the season



So how does yearling flushing stack up financially with the above results?

If we work on a programme of 6 yearlings, applying the above averages, and a September flush, we get the following.

Costs

Drug cost	\$1200
Flushing	\$1210
Implants	\$1435
Travel (max)	\$250
Total cost	\$4095+GST

Results

Expected embryos	=18.6
Expected pregnancies (53%)	= 10
Expected cost per pregnancy	\$410+GST

To achieve the same results from TVR / IVP we need to cost the embryos

Contract embryo cost (implanted)	\$265
Travel (per embryo)	\$35
Cost per embryo	\$300+GST

To match the cost of MOET pregnancies, TVR / IVP would have to achieve a pregnancy rate of 73%. This is well above any claims made by any IVP lab – I believe that the real in calf rate is around 35%. Given the high pregnancy rate achieved with donor heifers following MOET, there don't appear to be any major advantages to offset the high cost of using TVR on yearlings.

Comparing TVR with MOET in yearlings

	TVR	MOET
Budgeted cost per calf	\$850	\$410
Yearlings leave farm	Mostly – unless there is a collection centre close by.	No, unless a farmer prefers to send them to a centre.
Expected pregnancies from a 5 week period (2 MOET sessions or 5 TVR sessions)	Av 2 embryos x 5 sessions @35% preg rate = 3.5 pregnancies.	Av 3.1 embryos x 2 MOET collections @ 53% pregnancy rate = 3.3 pregnancies
Estimated donor in calf rate	>90%	>90%
Multiple sires?	Up to 5 but expect fewer than one pregnancy per sire.	Two sires, four if two used on each mating.

So: with similar outcomes but double the number of calves born for the same budget, it isn't surprising that our yearling MOET work is increasing rapidly.

The good news is that Ova-Achievers is now offering both MOET and TVR services – Yearlings and cows can come to our centre for TVR as well as us offering our usual MOET services on-farm and on-centre. See below.

Ova-Achievers has a new friend - and is offering TVR / IVP services.

Now that it is ten years old, it is time for Ova-Achievers to make a few friends of it's own. Being in such a small industry could be lonely for a young ET company but fortunately Percy and Lynda Sharp's ETS (Embryo Transfer Services LTD) company is 11 years old and specialises in TVR / IVP. Percy and Lynda have agreed to process oocytes for us through their laboratory.

Given our focus on MOET, this move might appear surprising. However, there are a few factors that have helped us make the decision:

- AB companies are promoting TVR, particularly in yearlings.

- Technology is moving forward and some future techniques will likely require a laboratory.
- CRV now owns the largest shareholding in Animal Breeding Services (49.8%) and we anticipate that this shareholding is likely to grow. This will likely lead to an increasing push to work with yearlings. Possibly adopting the European model where yearlings get two rounds of MOET followed by TVR once they are pregnant.
- Other breeding companies will prefer to send their IVP work to an independent company rather than to a competitor – even if CRV is prepared to offer its services to competitors. We aim to be the logical alternative for them – and to be this, we must offer TVR services.
- There will be some combinations of IVP and MOET that will work better than either method on its own.
- Percy and Lynda have the skills, experience and passion required to run a lab – I lack all three of these.

We are working on the finer details of an agreement. However, we will be up and running this spring, carrying out TVR on yearlings and adult cows, both on-farm and on-centre.

Please call us if your are interested in participating.

While we see MOET as continuing to be our main focus, we hope that having the ability to offer our clients IVP services will benefit all parties.

Networking Trip

This year our annual networking trip was split into two sections. Day one was hosted by LIC who ran us through the sire proving process. This involved watching semen collection and processing at LIC and then heading out to sire proving herds to look at heifers. It was very interesting to see Pulse and Fireup daughters (both Friesian bulls with around 165kg difference in liveweight BV between them). It was obvious looking at a group of heifers which daughters were from which sire just based on size.

That night we braved the Auckland traffic and headed north to stay at Waipu Cove. Thursday we visited three herds, Zac Grant and the Williams and Okura Jersey studs. Mahoe cheese, Lodore Ayrshires and lunch finished the trip the following day.

A huge thanks to our farmer hosts – Zac Grant, Luke and Lyna Beehre, Mary and Brian Williams, Roger and Jane Hutchings, Tim and Simeon from Mahoe cheese and LIC, particularly Casey for making the trip happen.

For those clients who haven't been on a networking trip, it is a fantastic opportunity to meet many of New Zealand's top breeders in a relaxed and sociable environment. You also get to look at a few cows. Next year – Taranaki!

Spring Workload

With the increased confidence in dairy, our Autumn workload has been 65% higher than the last year. It is easy to see this continuing into the spring – particularly if we have some TVR work to fit around our MOET work. It would be a great help to us if people could confirm bookings as much as they can ASAP. We realise that final numbers will depend on spring herd tests etc for many, so there is no definite commitment needed but it is very helpful to be able to pencil bookings into the dairy as early as possible.

We hope that calving goes well and that you get plenty of ET heifers. Thanks for supporting Ova-Achievers for the last ten years and we look forward to the next ten. Hopefully Ova-Achievers isn't a troublesome teenager – putting up with a ten-year-old's taste in music is bad enough.

Nigel, Rochelle, Lynn and Connie



Wendy Harker (president of the Holstein Friesian ASSN) talks T.O.P.



Brian Williams talks about the Williams Jersey Herd



Lyna Beehre talking about one of her Okura Jersey families



Roger Hutchings gives a T.O.P. demonstration

Genetic sales

We offer a Genetic Sales listing service through our web site. Check it out at:

<http://ova-achievers.co.nz/stock-listing/>

If you are interested in listing any elite animals or embryos please contact Rochelle at admin@ova-achievers.co.nz.

The screenshot shows a website interface for 'Stock Listings' with a search bar and navigation tabs for Embryos, Calves, Yearlings, Heifers, Cows, Bulls, and Pregnant Recps. The table below lists several items for sale:

Vendor	Sale Type	Description	BW	PO	Value	3GP	Photo	Contact
Stewart Anderson	Embryo	83 x Jayelle (Calf EW 278) 5 x embryos for sale. 83 is from a very good family established by Fraser and Christian MacBeth. Some of the animals used on Premier Sires as were her nephews Promotus and Pharaoh. There are not many females around and it appears that Jayelle line of embryos, offspring and sires will also be in short supply.	275			3GP...		Stewart 073735648
Stewart Anderson	Embryo	41 x Jayelle (Calf EW 278) 5 x embryos for sale. 41 is a very worthy member of the illustrious Beauty family. The deeds and achievements of this family speak for themselves and need no further embellishment from me. 41 had embryos exported to Ireland this year. The sire of these embryos, 'Calf 41' is a first ranking quality sire in any sirelist sired by him will be extremely valuable. Just as a matter of interest 41 is 100% blood sister to Arkan Chick (Female EW265 18654 - probably the most admired cow in the current herd).	270			3GP...		Stewart 073735648
Stewart Anderson	Embryo	182 x Blackgold (Calf EW 253) 5 x embryos for sale. 182 was top producing cow in the herd last season with 799 milk solids in 305 days. Note her LW average for her life, an impressive 654 and an average milk solids since she has been with us a staggering 784gms. Her 3 daughters in the herd have the following figures: (first 2, twins)	253			3GP...		Stewart 073735648
Stewart Anderson	Embryo	3068W 310PW 46LW 3072W 310PW 405LW 3058W 310PW 606LW As can be seen she is also settling as a breeding cow. She has had 2 sons go to LIC and 1 to Ashmore. These embryos are sired by the promising young bull Blackgold whose full brother Deacon was on Premier Sires last season and full sister is an outstanding heifer in our herd. This bull from the well known Beauty family will be an excellent mating cow 992.						
		431 x Grandeur 118066. Pregnant recp for sale. Expected calf EW 253. Calving due date 15/4/15. 431's current index: EW 285 PW 474						
Lightburn Recp	Pregnant Recp	Daughters in milk: 431 X Tasha EW 242 PW 200 431 X Tasha EW 248 PW 303 Sire of Liberty 0114 431 X Liberty EW 228 (adjusted) Sire sired in house herd 431 X Bravo EW 231 (parent average) Sire awaiting decision 431 X Serenaganza EW 256 (parent average) 431 X Shamu EW 261 (parent average)	253			3GP...		John Gillies 0274040508