

Top New Zealand grower achieves PEF of 425

Lindsay and Marie-Louise Winchester acquired their broiler sheds near Christchurch on New Zealand's South Island eleven years ago after Lindsay wanted a change from being a policeman. The five shed farm had a 58 000-bird capacity and after a period establishing themselves as competent growers for their integrator, Tegel, Lindsay was given the opportunity to increase his capacity to 90 000 birds. This expansion meant that Lindsay's operation is a large farm by South Island standards, where bird capacity is typically around 77 000 birds, according to Lindsay.



Lindsay Winchester

A sixth shed was planned and Lindsay was keen to build a state of the art, fully automated climate controlled unit. He went to Australia to look at options and decided that SKOV systems best suited his needs, and he became the first Tegel contract grower to use SKOV in New Zealand.

It's probably a fair bet that Lindsay's time and experience gained in the New Zealand police force has given him an evidence-based approach to his broiler growing. While he looked carefully into his shed climate control options, he had already realised that attention to detail in broiler sheds of all levels of technical sophistication were key factors in achieving the best possible results.

With the new 32 500 bird capacity 106 x 14.3 meter shed completed in 2001, Lindsay concentrated on maximising his performance levels and taking advantage of his choice of equipment and shed design. "We are consistently in the top percentage of growers in a country that is a world leader in poultry meat growing performance," Lindsay said.

Their Christchurch farm was the first in New Zealand to top 400 PIF, a remarkable achievement and a justification of the Winchesters' commitment to developing and continually working to perfect their operations – they grow chickens with excellent live weight and optimal FCR.

Since 2007, Lindsay splits his time between operating his farm and working as a consultant to SKOV, not only in New Zealand and Australia, but also in South Korea and South Africa.

In South Korea, he has trained farm managers for a large integrator in that country. "Many of these managers had never been involved in the industry previously," Lindsay said.

"I work alongside SKOV on an independent basis, assisting other growers who use, or are looking at the prospects of using their equipment to gain better knowledge and performance from SKOV equipment. Being an end user, I have accumulated wide experience of the company's growing product range and enjoy being able to help other growers improve their performance by using this ventilation equipment," he said.

Some of Lindsay's specific methodology in managing his sheds is influenced by the climatic conditions in Christchurch and the particular arrangements he has with his integrator. That said, his experience as a top contract broiler farm has plenty of relevance for growers in other parts of the world.

Heating costs are typically quite expensive in New Zealand – gas costs a lot and the climate in general is much cooler. Still Lindsay's tips on saving on these costs could save other growers plenty.

As soon as Lindsay's sheds have been cleaned out (after every batch) he shuts up the sheds to keep the heat in and vermin out. He also shuts all mini vents and turns fans off.

Speaking of vermin, Lindsay always ensures bait stations are filled: mice are a key source of salmonella, he points out.

The sheds have 100mm thick concrete floors and even between batches, he reckons he can retain plenty of heat, thus reducing fuel costs and time taken to bring sheds to optimal temperature prior to chick placement.

Lindsay broods 50% of the shed, but heats the whole shed using two large US-made Lenox 87 kW heaters, which, though they cost more than using smaller capacity units, are ultimately more efficient, he reckons.

"The chimney ventilated heaters work on the principal of a heat exchanger and the flame burns in a tube with a fan blowing out heat as the tube heats up, so there is no CO₂ emission," he said.

"There are two stirrer fans installed in the middle of the shed with the heaters at each end facing to the centre. The back-to-back fans and heaters combine to move the air in a circular motion and this helps to create a good even temperature throughout the shed.

"Once I start ventilating, usually day two, the stirrer fans are switched off.

"For the first 14 days after placement, I have the climate controller temperature set the same as the heater set point. I believe that a stable temperature is vital to achieving a good FCR," Lindsay said.

Key pre-placement tips from Lindsay are in most cases obvious, but often ignored.

"Check van belts on main fans – loose belts can loose up to 15% efficiency," he said.

"Calibrate shed inlets and outlets and remember that with SKOV systems, a minimum of 25 degrees is required.

"Make sure that bedding material is spread evenly and is level throughout the shed and at no more than 40mm deep and always test alarms, emergency opening operation and the standby generator.

"I also cover main fans to prevent draughts and heat loss," he said.

"Flush all drinker lines, and prior to this I remove my water meter so that the quality of water flushed out is not recorded in the batch information," he suggested.

"We chlorinate at 3ppm of free chlorine, so this flushing will ensure that there is fresh chlorinated water in the drinker lines.

"I then run the feeder lines and flood the pans, checking the end control pan to ensure the feed level is where it should be, then I re-attach the water meter."

Lindsay's attention to detail extends beyond the sheds themselves – external factors can greatly affect the overall performance of the batch, he states, so he has taken steps to monitor and record these critical influences where he can.

"When the chick truck arrives, check the temperature in the truck: there should be a read-out in the cab of the truck saying what the temperature in the truck is and some integrators have a printout that is given to the grower.

"The temperature in the truck should be between 23 and 26 degrees. This is most important to check and I always write the temperature down on the delivery docket so the hatchery can see I am checking these things," he said.

"By day 14, my second silo of feed is filled.

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With the feed weigher, I monitor the silo and double check the deliveries are as they indicate on the docket.

"With only one supply auger, I do have to swap between silos sometimes to get me through the night. When I do this, I note how much is left in the silo, reset the silo to 0000, then enter a new delivery for the next silo, close the previous silo and open the new silo.

"I run this through the night, then the next day note the balance left, re-enter the figure from the previous silo, close the slide on the current silo and open the other silo slide so I can run that silo empty.

"I know this is a bit of mucking around, but it double checks your deliveries and ensures that when your integrator is accessing performance you have done the best you can to ensure the data is accurate," Lindsay explained.

Recent initiatives by Lindsay include the installation of SKOV's new DOL 2000 CO₂ meter, which he mentions in connection with day 21 in his routines.

"By day 21, the set temperature has dropped to 23 degrees and the shed is now ventilating itself, well over the minimum ventilation level.

"I have just installed a CO₂ meter, so will be monitoring the level to check that my ventilation levels are sufficient (no more than 3500 ppm), not too much ventilation (low CO₂ will verify this) or not too little ventilation (high CO₂ levels will confirm this).

"The CO₂ meter will be a useful tool," Lindsay said.

"My experience from working with an integrator overseas was that they were over-ventilating and their CO₂ meters confirmed this. The result was a significant saving in gas and electricity costs."

Lindsay has some interesting ideas on managing pick-ups, which in his case takes place from day 28 when the first of the male population is thinned.

"The sheds are split sheds where the cross auger comes in the centre and the feeders are controlled as two separate zones.

"I can switch one zone off while the other zone continues to feed. This is a great way to allow the birds in the other end of the shed to continue eating without checking them by cutting their feed off while birds are taken out the other end of the shed," Lindsay explained.

"About day 32 or 33, all the females are taken from the sheds, so this just leaves a reduced amount of males in the shed and you end up with about a third of the shed's capacity left to grow on to usually day 42.

"Growing these males on to day 42 and achieving 110 to 120 gms per day is the trick to giving the shed an excellent FCR.

"I allow a total of five hours for feed withdrawal. This is from the pickup time when I go back two hours later and then back a further three

hours later, and it is this time that I stop the feeders in that zone on a time clock.

"I know it takes three hours for those birds to eat the pans out, then they have a further two hours before pickup.

"Our integrator is very strict on cases of full crops and financial penalties can result for growers who don't manage feed regimes prior to pick up," he said.

Many of Lindsay's tips to growers involve that little bit of extra effort, but he is also aware of saving time and effort, and one of his initiatives has been to acquire and modify a skid steer vehicle typical of many that are used to move and pick up shed floor.

Lindsay's vehicle has a purpose built bucket to move and evenly distribute wood shavings flooring material quickly and effectively.

Having proved the effectiveness of this neat unit, he hires it out to other growers in his area of New Zealand.

Lindsay points out that most of his initiatives are common sense and that most growers will already have thought of them, but he does make the valid point that growing chickens well is "all about attention to detail".

"Every little thing you do adds up to one big thing: a good result for your integrator and hopefully better financial rewards and a more secure future as a contract grower," Lindsay concluded. ■



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