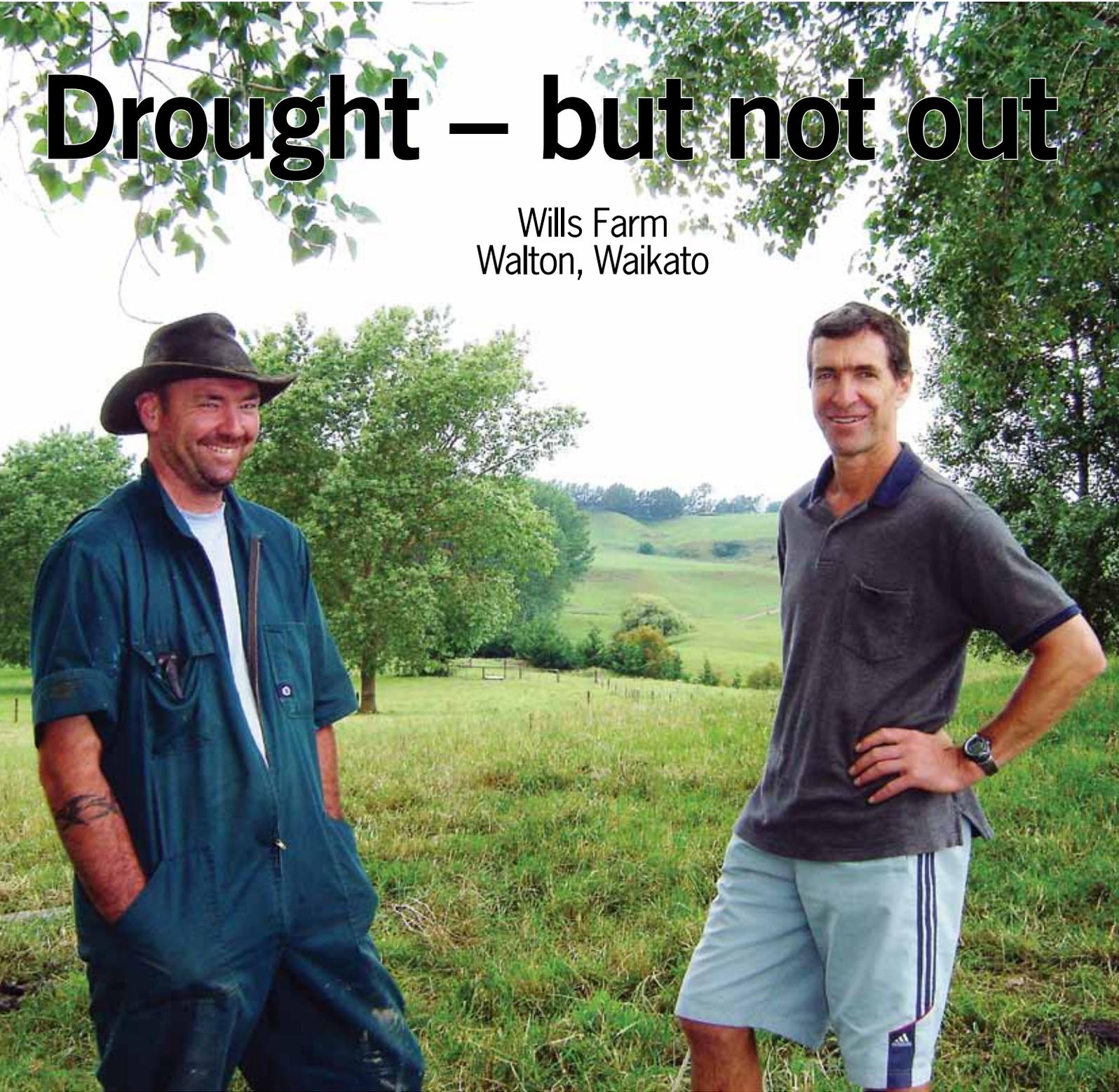


Drought – but not out

Wills Farm
Walton, Waikato



Steve Ironmonger (left) and Grant Wills among poplars planted for shelter in paddocks.

Pre-Christmas, as drought loomed over the Waikato, Grant Wills and his sharemilker Steve Ironmonger were comfortable with their situation, although they had fed out all their maize silage through the wet spring. **Steve Searle** visited.

The prospect of another drought is not causing Walton farmer Grant Wills and sharemilker Steve Ironmonger to lose any sleep. They feel they are well prepared for whatever comes.

Despite having to feed out the last of their maize silage during an uncommonly wet spring, they expect their herd will continue producing milk into May – as it did during last three year of drought.

“We’re confident going into another hot summer that we will be OK in the Herd Home,” he said.

“It’s like a big beach umbrella. We also have second contract for palm kernel booked in.”

Steve is in his tenth season working for Grant, but this is his first as a lower-order sharemilker.

Grant, who is a Fonterra Shareholders’ Council (FSC) member, said the reasons for investing about \$550,000 in two Herd Homes three years ago, and another \$200,000 for concrete silage bunkers, had not factored in the significant relief of heat stress in the summer.

He had earlier planned an in-dairy feeding system or a concrete feedpad for less wasteful feeding and to stand cows during wet periods.

System won

But the sheltered system won out because it offered more flexibility of farm management. Other options on the list have also been employed, such as once-a-day (OAD) milking of the younger herd of 250 cows after Christmas and increasing the area of maize grown for silage to just over 20ha this summer.

“While the basic plan was to increase



Jared Gorringer dispenses feed from a towed wagon.

feed utilisation, it also had to be flexible so we could change according to the payout and weather changes,” said Grant.

He believes the shelter offers significant advantages over a feedpad – an example being lameness that has reduced from 45 cows a year to just 12. Reproductive performance has also improved with the empty rate down from seven percent (the five-year average) to 3.5 percent (the two-year average).

“That equates to 21 cows retained at a value of say \$1600 each, rather than \$400 as culls, so we are gaining a \$25,000 advantage there,” said Grant.

The shelters also appeal to staff because the cows walk briskly into their own spot in the homes day after day, once the paddock’s auto-gate is opened. They are no longer taking an hour to feed out with a wagon in the paddock – instead it takes 20 minutes from load-up to feed being dispensed along the length of each shelter.

Cooler by 8 deg

In the heat of a summer’s day, the temperature in the shelters is usually cooler by 8 deg C in summer and warmer than outside by about 15 deg C in winter.

“We can stand in there among them and it’s still cool on a hot day,” Grant said.

“They’re spread out and looking very content. Happy cows and happy people.

“When they’re outside in the heat of the day they tend to stand around and sulk. They are not eating and won’t even walk to drink from a trough. Under shade, they walk a maximum of 30m for a drink and they keep eating.”

Air vents in the plastic film roofs open automatically by thermostat and the feed-out system has been deliberately kept simple with a digital readout of

feed weight in the wagon enabling even distribution. Grant said it’s a simple, efficient and flexible set-up that enables Steve and farm workers Jarrod Gorringer and Jason Giles to get on to maintenance jobs without delay.

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Grant has calculated that his net financial benefit from the two homes totals \$157,000/year, despite their accommodating only 400 cows at one time. So the 650 cows, run in two mobs, have turn-about in the shelter during each day.

Cups are on at 6am at both dairies of the merged farm – 24-aside and 30-aside herringbones – and cows under four years old find their way into the shelters after milking, for an hour and a half of shade and supplement before being turned out to their next 24-hour paddock. At the same time the gate opens for the herd of older cows who will be in for their supplement feed and shelter until 3.30pm when the evening milking begins.

Grant has a measured a production efficiency gain of 9gm of milksolids (MS) for each kg dry matter (DM) fed since having the “beach umbrellas” up.

It doesn’t sound huge until you multiply the difference by 13 tonne DM/ha/season (including all supplement, maize, grass



Owner: Grant Wills
Sharemilker: Steve Ironmonger
Area: 215ha
Herd: 635 Friesians milked
Production 2009/10: 224,000kg milksolids (MS), 353kg MS/cow, 1042kg MS/ha
Production target 2010/11: 240,000kg
Pasture production: 13t DM/ha
Crops: 16ha maize, no grass silage
Supplement: 150t palm kernel





Young cows leave the herd home mid-morning for pasture.

silage and grazing off). The gain totals \$138,000 a year when the payout is at \$5.50/kg MS.

Supplement wastage is calculated to have been reduced by at least 15 percent by using concrete bunkers and feeding on concrete paths alongside each home. For 500t of supplement this equates to a saving of more than \$25,000/year, or 3ha of maize free.

Condition increased

Cow condition has increased “which means we are not having to dry off cows because they are getting too skinny during summer”. They are now 40-60kg heavier.

“In effect, we are controlling their feed better, rather than using cow condition as a buffer, which can affect their ability to get in-calf,” Grant said.

The urine and dung waste in the under-floor pit of each home is kept liquid and cleaned out and spread by slurry spreader contractors twice a year.

After costs, there is a net gain of \$8000 in the value of soil nutrients after discounting the potassium (K) value of \$18,000, because those values in the soil are already high.

The total net gain of \$157,000 is calculated after paying \$49,000 in annual interest on the capital cost of Herd Homes and bunkers.

Steve believes that without the shelters they would have resorted to taking

supplement into paddocks in mobile feed troughs to reduce wastage.

“The downside is the time taken to tow the troughs out and bring them back when empty and you usually see some of the feed being thrown around and compaction and pugging damage around the troughs,” he said.

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During spring, the shelters are used for several different groups of cows within a 24-hour period – two herds of milkers, a colostrum mob, mid and late calvers, and an early-calving mob overnight.

“I personally wouldn't like to go back to chasing cows through mud and rain during calving,” Steve said. “You can be up to one hour in the paddock with four guys and now it's a two-man job that's done in

20 minutes and without getting wet.”

Grant looks after their young stock on a nearby grazing block.

Environmental improvements

He is proud of the environmental improvements over the past eight years on the farm, where 1000-2000 native plants are planted each winter and fill most of the fenced-off stream edges, a total of 12ha. And now the steeper sidings are being planted.

“It's partly for economic reasons,” he said.

“We would lose on average two cows each year in swampy ground. But it's mostly for the environment.”

Several duck ponds are an extra bonus – particularly for Steve, a keen shooter.

Effluent from the dairy ponds are spread over 6ha and the Herd Homes effluent is spread over 20ha each time they are emptied.

Each month Grant cuts grass growing in three cages – in a low fertility paddock, high phosphorus (P) and K paddock and a new paddock – that he dries and weighs.

In mid-December they were averaging 45kg DM/ha.

“We're behind what we need, because we need about 50kg DM/ha/month to break even. Last year, we averaged 50kg from September to December so we didn't have any surplus for silage and the cows ate everything.”