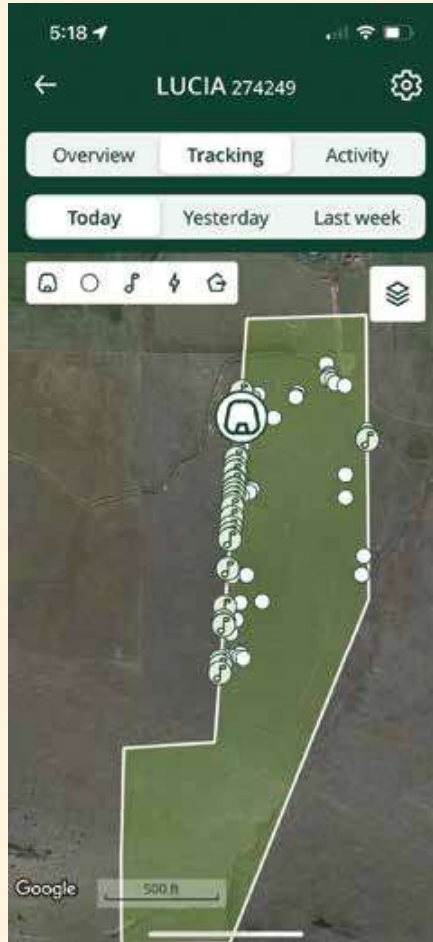


Editor: Jenny Kahrl will need no introduction to many of our readers and runs a herd of Stud Devons in Montana at the foothills of snow covered mountains.

Montana Devons were founded on imported Rotokawa cows that have been bred to Australian (Gowan Ross & Vix) and New Zealand (Tapuwae & Te Maewa) semen for three generations. Montana Maverick, a young bull won Best Young Bull and Res grand Champion bull at the Red Devon USA National Show.

It must be noted that as I write this Virtual Fencing is still not permitted in many states in Australia but is now being used in Tasmania, Queensland and Western Australia. The CSIRO, Australia's national science agency played a major part in its development starting back in 2005. It is currently mainly being used in the dairy industry where the benefits are very obvious, allowing strip grazing, bringing in cattle twice a day for milking, and bringing in heifers separately from the cows. However the potential for fencing remote upland areas is huge with enormous environmental benefits. animal Vol 18 Issue 8 August 2024. 101231 J Shillings, C Holohan, F Lively, G Arnott T Russell.

Studies (animal Volume 16 Issue 9 Sept 2022 100614 looking at animal welfare (measuring cortisol levels in dung or milk) have found that virtual fencing is not more stressful than electric fencing however in 2024 an inquiry was set up to amend legislation to permit the use of VSF (virtual stock fencing) in NSW, the RSPCA referred to negative research papers which were not based on this objective measurement.



September 29, 2025

This past spring I decided to commit to the costs and effort of installing Virtual Fencing, specifically Norway's NoFence brand, on my ranch. To say that I am overjoyed is an understatement!

While the initial costs seem high, (\$285 USD per collar + \$45/cow annual subscription for NoFence), I have saved so much time and worry managing my intensive grazing that I will never go back to strings, batteries, posts, insulators, and ground rods.

There are many articles online about HOW the collars work, so I will not cover that. I will discuss the benefits- and problems- that I have found as a single person running a small herd (30 mother cows plus a few extras) as a lone person.

Benefits

EASE OF PASTURE CHANGE: My forages grow thickly, and are often taller than my knees. Physical temporary fence requires me to slog through tall, thick plants to set every fence line. Virtual fence allows me to set the new fence line as I sit at my breakfast table, and I even easily managed grazing from 2500 miles away across the continent!

I can move the fence in less than a minute, for every animal in the group. Since there are always "fence testers", usually my yearling heifers, the new boundary is quickly discovered by the cattle (usually within 5-10 minutes), and the herd moves peacefully onto the newly available pasture.

I can also manage several concurrent pastures at the same time, and easily shift animals from one pasture to another on my phone.

EASE OF TRAINING: The cattle learn very quickly, since they already understand the system of electric shocks from physical temporary fence.

With all brands, the animal hears the initial warning beeps, then finally receives an electric pulse. They have plenty of time to turn around and distance themselves from the boundary. Once they learn the system, hardly anyone gets pulsed at all- they just approach a boundary, hear the beeps, and peacefully turn back. If they do escape after receiving 3 separate pulses, 3 times, they can return inside "for free", without an auditory warning or pulse.

My herd learned the new system within 48 hours. When I added newly purchased cattle into the herd, it took between 3 and 8 electric pulses for a cow to learn the system. After that, they happily stayed inside every virtual boundary with the rest of the herd.

EASE OF ESCAPEE RETRIEVAL: With string electric fences, once an uncooperative cow or a wild animal breaches the string fence and the fence is down- the whole herd escapes. With Virtual fencing, every animal carries "their own fence" in their collar. A single escapee is just that- a single animal. I have found that the need to be WITH the herd brings that animal back by herself, into the group. If a group of cattle is pushed out by a strong windstorm, or a panicked moment, I just extend the virtual boundary on my phone app, collect the cattle inside that larger boundary, and gradually "shrink" the boundary back to its original placement as the cattle calm and return to the larger group.

EASE OF ANIMAL SUPERVISION: Each collared animal is listed individually on the herd site. When an animal exits the virtual fence line, I receive a phone notification. I know who the troublemakers are! Also, I can track actual movement across 24 hours, and weekly. If an animal is moving a lot less than the herd average, that is reported. If she stops moving, I am notified within 4 hours. If her movement is above herd average (perhaps she's cycling and in heat?) I can see that too.

One local producer reported that 5 animals got stuck in a muddy pond- the app notified the producers of the lack of movement, and they successfully rescued those immobile animals, saving their lives. In another instance, a fence left open by tourists allowed animals to escape. The app notified the producers about the escapees, and those animals were successfully returned to pasture before they mixed with the neighboring herd.

If a collar falls off, or is pulled off, it stops moving and I receive a report. I can quickly go retrieve the collar (GPS tells me its location, and the collar can beep loudly when I approach), or find the injured stationary animal.

The collarless calves "forward graze", traveling out in front of the virtual boundary, eating the best forages- but they always return to their mothers.

EASE OF FENCING THROUGH DIFFICULT LANDSCAPES

Since the fence is virtual, I can draw that boundary anywhere I want. Thick willow bushes? Deep ditches? Long distances? As long as I have phone/GPS receptivity, there's the virtual fence. I have effortlessly created boundaries this year which I have never, in 25 years, been able to do before. The cattle respect the boundaries, and better grazing management results.

REDUCTION OF LABOR!

This summer, I have never set up a new fence on foot. I can drive right through a pasture boundary- because it's virtual! I know where each animal is- every minute of every day. The herd is now peaceful and cooperative. They find the new boundary and peacefully walk forward to graze. There is no bawling as I erect a new string fence.

COST SHARING OPTIONS

In the US, there are numerous environmental non-profit organizations which are sharing costs of virtual fencing purchases with producers. I have also heard of county and state governmental organizations who can share purchase costs with producers. It's worth researching to find out if those high initial purchase costs can be reduced for a producer.

Problems

LOST/WRONG-SIZED COLLARS

Collars do occasionally fall off or are pulled off. Initially, I set several collars too loose, and they fell off and needed retrieval. I set a few collars too tight, which caused some swelling on the necks of the affected cows. I also found that as yearlings grew and gained weight, the collars got tighter and needed loosening.

All these changes require that the herd is brought into the corral for adjustment. A herd that can't be corralled for weeks



Montana cows with collars

or months might find that virtual fence doesn't work as well. I found that a single collarless animal stays near the herd. Three collarless adult animals start to create their own herd and wander off.

CELL/TOWER CONNECTIVITY

Nofence requires decent internet service, the "tower managed" brands also require phone connectivity. Each brand will map your property to help you decide which band is best for you. Deep valleys, distant hills, low spots without service connectivity- all those issues will need to be planned out before you decide which brand of virtual fence will work for your property.

PRICING UNKNOWNNS

Since each brand of virtual fence has a different pricing structure, you will need to contact each company and spend the time to map connectivity and landscape. I found that they are all, in the end, priced relatively the same.

COLLAR DURABILITY

Most brands use solar panels on the collar, or the hanging battery, to keep the charge in the battery. In areas with very low sunlight (short winter days?? deep cold???) the collars might lose their charge. All my collars have been in and out of water tanks and through thick stands of tall willows all summer without trouble. They have kept their charges above 90%, even for the yearling heifer who checks every single foot of every single boundary, every day!

If a pasture has a lot of shade trees, and the cattle stay in the shade all day, and the collars depend on solar recharging to work for longer periods, battery charge might be an issue.



Montana heifer with collar.

