



Virtual Fence Update (January 2020)

New GNSS (GPS, GLONASS, QZSS and GALILEO) satellite collar systems could greatly reduce fencing, but subscription fees and start-up costs are unlikely to be economical for many ranches.

- Other concerns:
 - Stress of the training phase? Stress of changing boundaries?
 - Cell coverage? Internet outage? What's the backup?
 - Collar wedged in a tree? Stops functioning?
- Nofence founder [Oscar Hovde Berntsen](#) says:
 - Average customer has less than ten collars. "Many are just testing before they invest too much in emerging technology, which we recommend."
 - Animals learn fast, and can escape the fence if they must (e.g. if chased by a predator).

[Nofence](#), Norway, produced the first collars in 2009 and made them available in 2017:

- **Subscription fee:** \$0.25 - \$1/head/day depending on number of collars and days grazed.
- **Borders are drawn on a map** on a phone or computer app.
 - The fence function only requires GNSS (GPS) satellites.
 - Cell coverage is needed to send new fence locations to the collars, and for the collars to send the farmer notifications.
- **Beeps** at the boundary increase until a "zap" is received, less powerful than an electric fence.
 - Training usually requires animals to receive about 5 zaps in a safe, supervised area.
 - Escapees go through 3 e-fences, then zaps are turned off and the animals are tracked.
- Batteries are **charged by solar cells** on the collar, but may require swapping out extra batteries to recharge (5-port charging station: CDN\$300) up to 1x per month if grazing in shady pastures, and to maintain batteries at the end of the season.
- **Beacons** (CDN\$85 for a pair) are required to turn collars off around shelters or other obstructions that could interfere with GPS reception (and to save battery life).
- [Nofence Cattle Products](#): (CDN\$)
 - Collar \$480, new batteries \$135
- [Nofence Goat/Sheep Products](#): (CDN\$)
 - Collar \$305, new batteries \$65
- **Competitors (cattle only):**
 - [E-Shepherd](#) (Argesen's), Australia
 - [Vence](#), California
 - [Halter](#), New Zealand, uses vibration to help animal movement (e.g. for dairies) and is entirely subscription (collar's not purchased).

Did you implement a recommendation from a KBFA event or resource?

Let us know: Email coordinator@kbfa.ca, call or text 778-771-5851