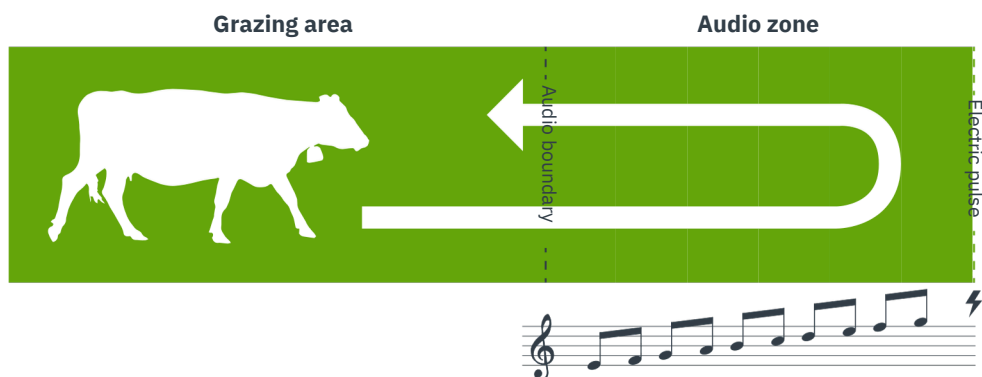


Virtual Fence 101

Virtual fence (VF) is a precision livestock management tool that creates an enclosure, barrier, or boundary without a physical fence. VF allows real-time automation of grazing management from a smartphone or computer. Livestock are fit with a collar that generates audio warnings and electrical stimuli.



GPS in the collar continuously tracks animal position and checks this against the virtual boundaries set by the producer. As an animal approaches the boundary, a series of audio warnings are delivered. If the animal does not turn away, the collar delivers an electrical pulse.

VF aids in the adoption of regenerative grazing. This technology can be applied in many different management scenarios:

- Rotational grazing
- Weed control
- Cover crop grazing on row crop acres
- CRP grazing
- Grassed waterways and ditches
- Woodlands, silvopasture
- Public land grazing
- River corridors and floodplains
- Reduce fuel loads for wildfire mitigation
- Post-fire grazing
- Solar grazing
- Bale grazing



Cost of VF varies by vendor:

Costs include collars and monthly subscription fees, and base stations, in some cases.

Vendors in the US include:

Vence™
Nofence™
eShepherd™
Halter™

NRCS support of VF:

Two practice scenarios support implementation costs of VF; Fence (382) and Grazing Management (528). Funding becomes available in October 2024. Producers are encouraged to work with their NRCS representatives to incorporate VF into farm planning.

- Goliński P, Sobolewska P, Stefańska B, Golińska B. Virtual Fencing Technology for Cattle Management in the Pasture Feeding System—A Review. *Agriculture*. 2023; 13(1):91. <https://doi.org/10.3390/agriculture13010091>
- Figures credit: Nofence. Content credit: GLBW & partners, 2023.