# 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.

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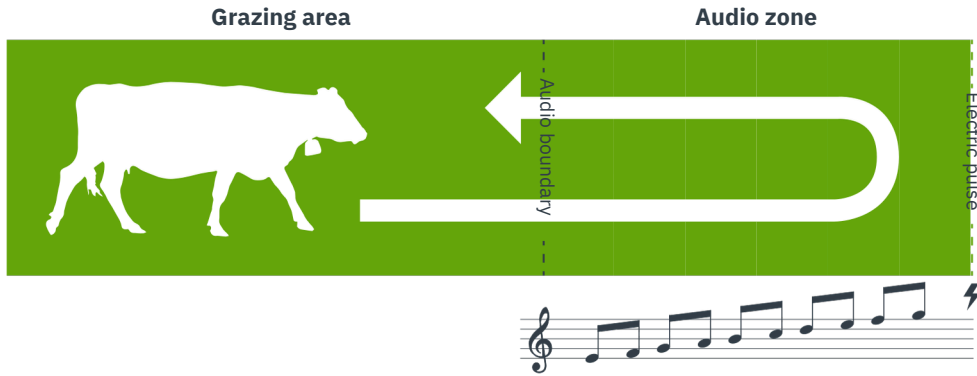
GPS in the collar continuously tracks animal position and checks this against the virtual boundaries set by the producer. As an animal approaches the boundary, a series of audio warnings are delivered. If the animal does not turn away, the collar delivers an electrical pulse.

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.

NRCS support of VF:

NRCS accepts producer applications for its conservation programs year-round, but producers interested in funding during the current fiscal year should apply by their state's ranking dates.

Vendors in the US include:

Vence™
Nofence™
eShepherd™
Halter™

- 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
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