

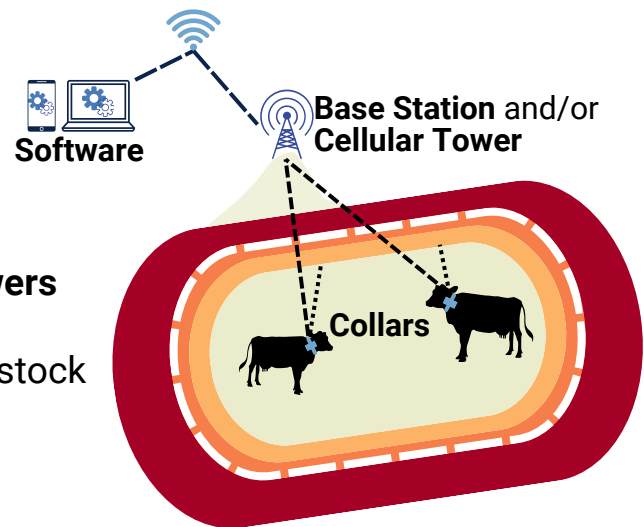
Foundations of Virtual Fence: Basics of Virtual Fence

What is VF?

Virtual fence (VF) systems use invisible barriers, established by GPS coordinates, to influence livestock movement with a combination of auditory and electrical cues without interior physical fences.

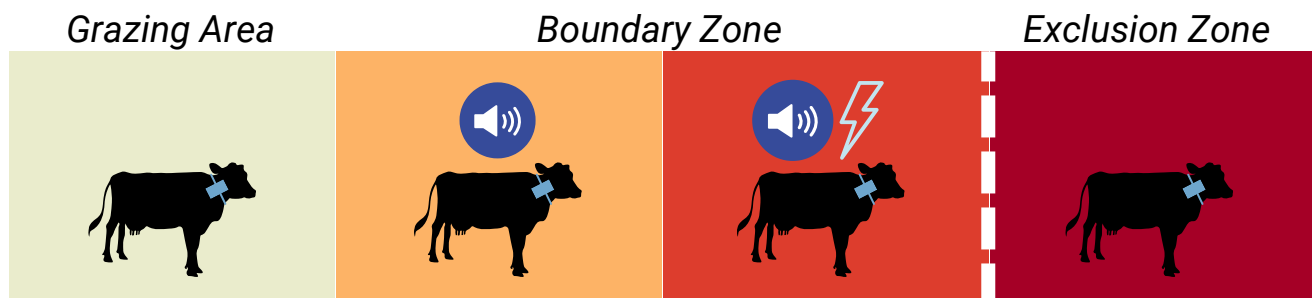
Components

- **Software** to draw VF boundaries on a digital map
- **Base stations and/or cellular towers** transmit information between software and collars worn by livestock
- **Collars** geolocate the animal's position and deliver auditory and electrical cues when needed



How it Works?

Livestock are trained to change directions in the boundary zone when they hear and feel the collar cues. Once trained, they should return to the grazing area after only hearing the auditory cue.



For more information, read *Basics of a Virtual Fencing System*

Access VF resources at rangelandsgateway.org/vf

Developed by the University of Arizona with supported from
USDA NIFA WSARE (WPDP22-016) and
AFRI IDEAS (2023-68014-39715)

