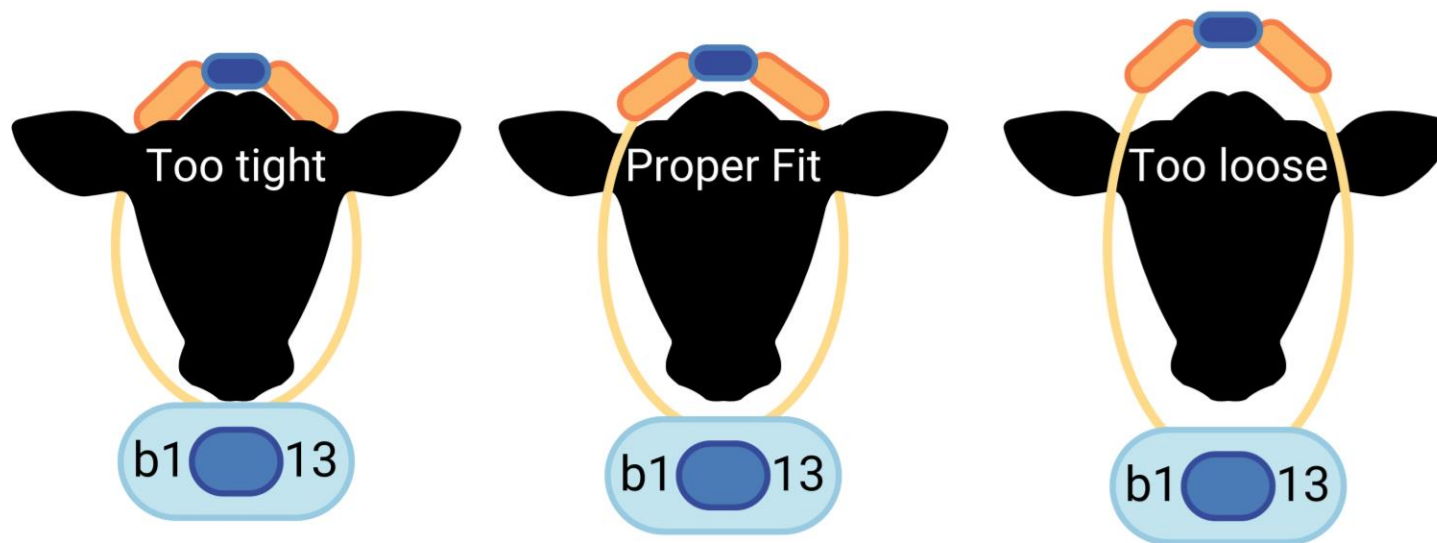


RECOMMENDATIONS FOR COLLARING



Credit: Amber Dalke

April 15th, 16th, and 17th 2025
Window Rock, Leupp, and Fruitland (Navajo Nation)

Flavie Audoin



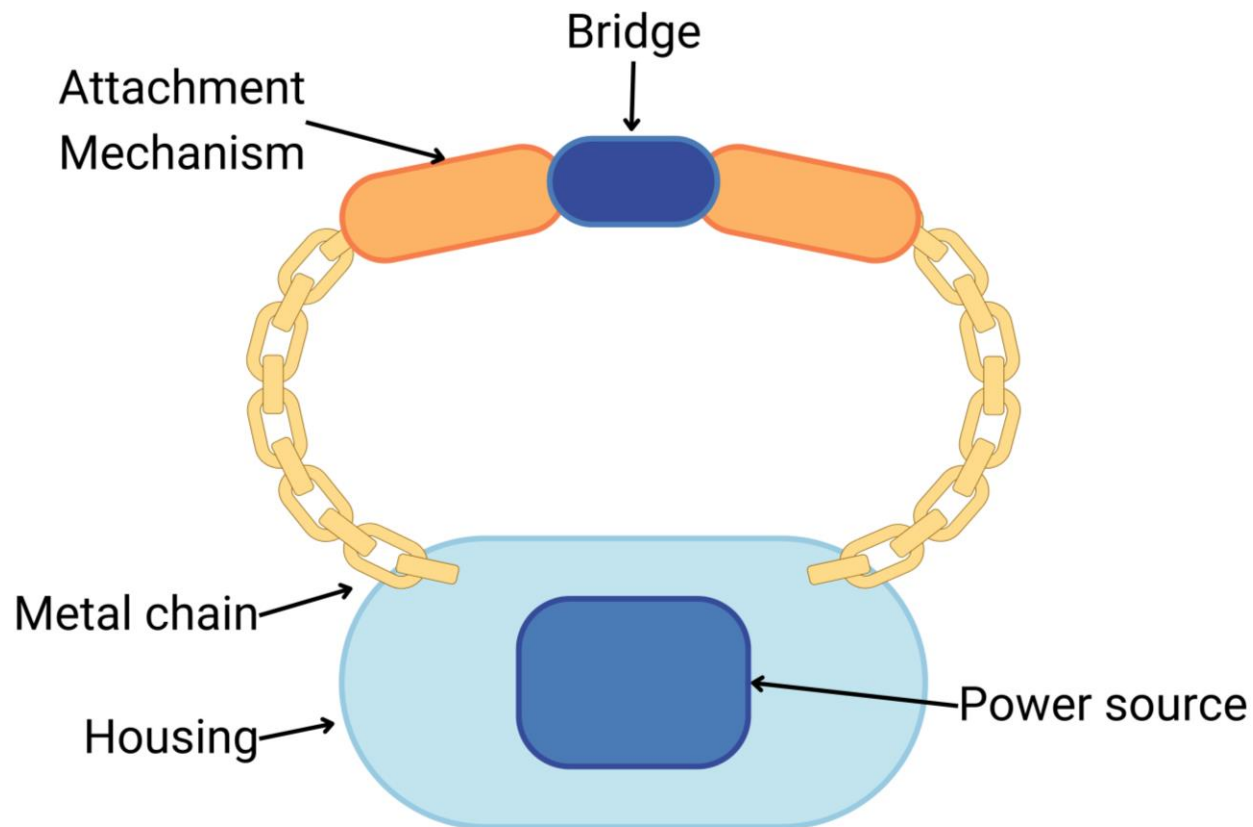
COMPONENTS OF VF COLLARS

COLLAR DEPLOYMENT BASICS

COLLAR DEPLOYMENT SPECIFICS

Components of VF collars

- Electrical cues delivered by chains or electrodes
- Breakaway point: bridge or strap
 - ➔ only for a sudden force applied to the collar



Preparing for a collaring event

- Planning is very important!
- Know your VF company's requirements
 - ➔ some vendors require to open the battery cover, install the battery and close the battery cover
 - ➔ some vendors require batteries to be charged in a wall outlet prior to deploying collars
 - ➔ some vendors require batteries to be charged in the sun before deploying collars
- Assemble all the necessary tools and components prior to the collaring event
- Working animal handling facility: check squeeze chute, gates, corrals, fences, etc.
- Collaring events can be paired with other livestock management tasks.

Preparing for a collaring event

- Check the weather forecast!
- Practicing collaring can help, recruit a collaring team
- Might be helpful to gather the herd the day prior to collaring
- In the event of re-collaring, it may require more than one day to re-collar the herd
→ plan accordingly

Collaring livestock

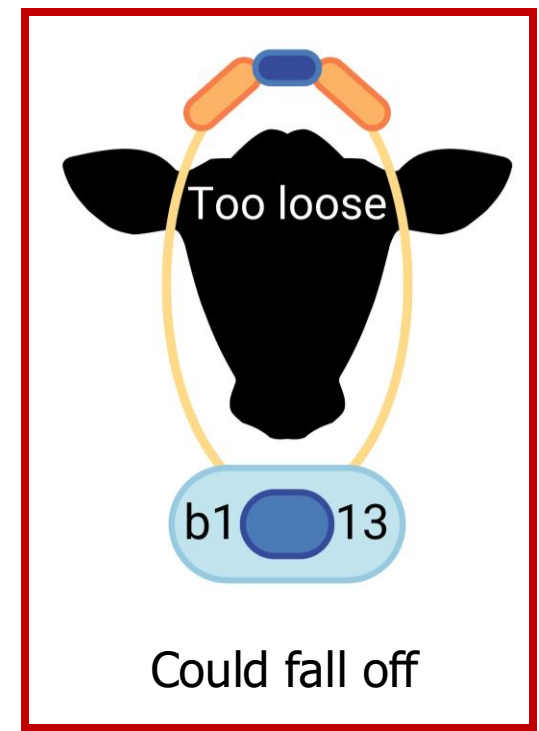
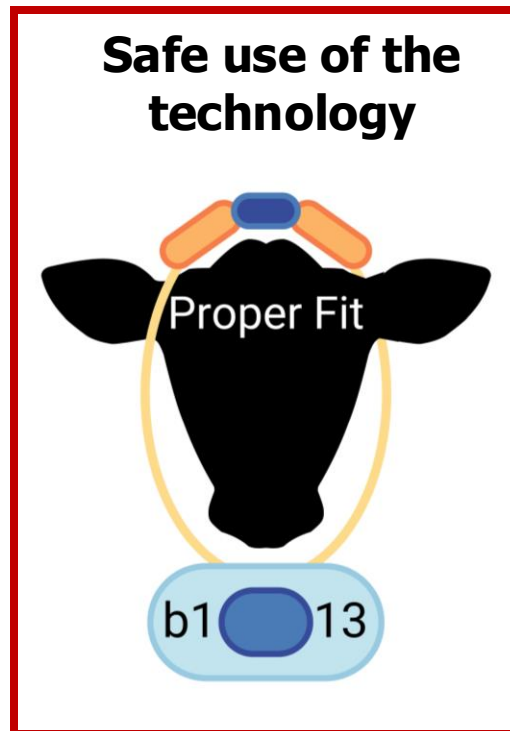
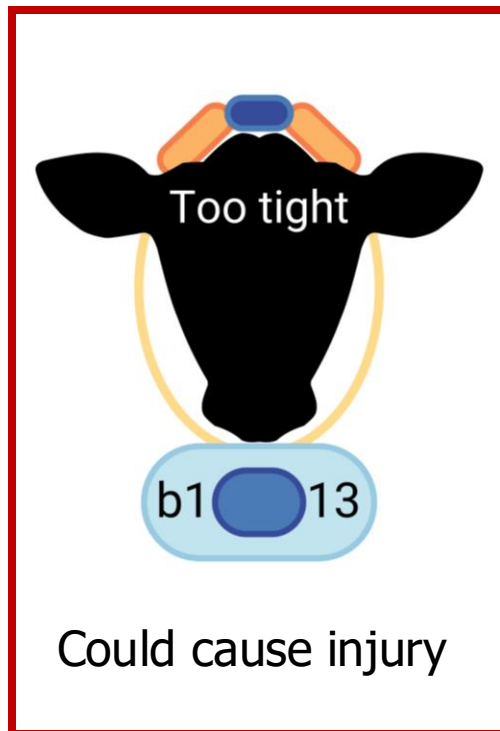
- Use caution!
- Squeeze chute
 - ➔ one person on each side of the animal
 - ➔ use low-stress handling methods
 - ➔ avoid standing in the path of travel
 - ➔ always have additional attachment mechanisms available
- Record information about each animal
 - ➔ animal ID and VF collar ID
 - ➔ disposition
 - ➔ age
 - ➔ etc.



Credit: Dennis Moroney

Proper collar fit

Proper fit is achieved when livestock can express their natural behavior without the collars interfering or falling off.



- Most VF vendors recommend visually checking the collar fit on growing animals
→ every 6 to 8 weeks

Collaring specifics for each VF company



Cattle



Solar
rechargeable



Base station
or Cellular

Credit: Amber Dalke

- Their collar arrive deactivated and need to be activated before use
 - magnet near the LED indicator for about 5 seconds
 - purple LED = collar detects the magnet
 - escalating music tone = collar activated
 - orange LED blinking = collar is trying to connect to the network
 - green LED = collar will appear in the eShepherd Web App
 - collar ready for deployment
 - **RECOMMENDATION:** turn on the collars several hours before attaching them to livestock
 - To turn collar off, same process (five short beeps, descending music tone and solid purple LED)
- Collars are shipped partially charged. If flashing red, low battery.
 - Place collar in full sunlight for 1 – 2 days for a complete recharge

Collaring specifics for each VF company



Cattle



Solar
rechargeable



Base station
or Cellular

Credit: Amber Dalke

- Line up collars by their ID numbers
- Organize the locking clips in pairs
- Adjust collar size beforehand using the buckle and chain links (after a few tests)
- Ensure that the arrow on the collar faces in the same direction as the animal's head.
- Check for fit by lifting the top strap
 - ➔ enough space of a closed fist between the collar and animal's neck
 - ➔ both sides need equal link lengths
- Secure the collar with the locking clips on both sides
- Flat head screwdriver can be use to pop open the locking mechanism

Collaring specifics for each VF company

Please note that cattle were safely restrained while collar fit was adjusted for demonstrative purposes only.



Too tight



Just right



Too loose

Collaring specifics for each VF company

Halter®



Cattle



Solar
rechargeable



Base station

Credit: Amber Dalke

- Collars arrive fully charged
 - ➔ if charge has dropped (visible in the app): place collar outside in the sun to recharge it
- The collar is activated by a magnet (provided) and by tapping the power symbol on the side of the collar.
 - ➔ blue LED flashing = collar has been successfully turned on or reset
 - ➔ green LED = collar connected to network
 - ➔ collar ready for deployment
 - ➔ average: one person can activate 100 collars in less than 30 minutes
- **Collar fit:** when the cow's head is in a neutral position, the counterweight at the bottom of the collar should be slightly compressing the skin under the neck.
 - ➔ should be able to fit three fingers between the collar and the neck
- Maximum of two holes differences on each side, otherwise collar won't be balanced.

Collaring specifics for each VF company

Halter®



Cattle



Solar
rechargeable



Base station

Credit: Amber Dalke



Credit: Travis Mulliniks

Collaring specifics for each VF company

Please note that cattle were safely restrained while collar fit was adjusted for demonstrative purposes only.



Too tight



Just right



Too loose

Collaring specifics for each VF company



Cattle, goat,
sheep



Solar
rechargeable



Cellular

Credit: Amber Dalke

- Collars arrive partially charged
 - ➔ if charge needed (visible in the app): charge battery with wall outlet
 - ➔ it can take 10-14 hours for a battery to charge completely
 - ➔ depending on the number of chargers and batteries to charge, this step could require several days/weeks
- Insert the batteries into the collars one day before deploying them
 - ➔ allows time for the collars to install any firmware updates
 - ➔ if collars have power and are in cell service, they should automatically update
 - ➔ start-up sound when inserting the battery

Collaring specifics for each VF company



Cattle, goat,
sheep



Solar
rechargeable



Cellular

Credit: Amber Dalke

- In case of re-collaring,

→ make sure the batteries and battery slot of the collar are clean and free of any debris

→ check the hex screws that attach the top collar bracket to the collar unit (make sure that no screws are missing or loose)

→ screws should be tightened to hand tightness (a size 3 mm Allen key)



Credit: Lela Makoin

Collaring specifics for each VF company



Cattle, goat,
sheep



Solar
rechargeable



Cellular

Credit: Amber Dalke

- Nofence collars do not require assembly beyond inserting a charged battery.

- C clamp style vice grips may help with battery removal.

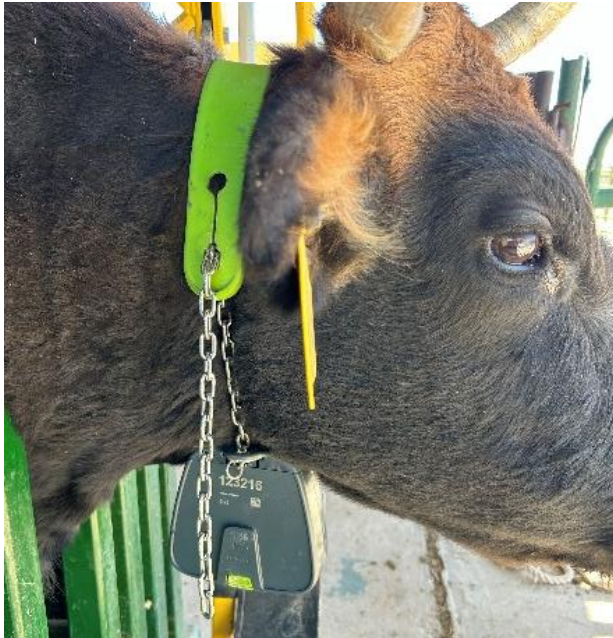
- ➔ vice grips can be used to help press the green latching mechanisms on either side of the battery to release it from the collar.



Credit: Lara Macon

Collaring specifics for each VF company

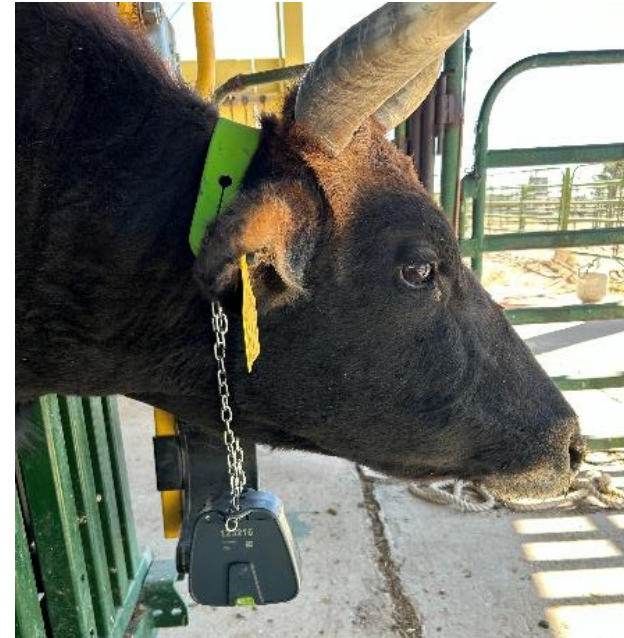
Please note that cattle were safely restrained while collar fit was adjusted for demonstrative purposes only.



Too tight



Just right



Too loose

Collaring specifics for each VF company

VENCE

Merck Animal Health



Cattle

Single-use non
rechargeable

Base station

Credit: Amber Dalke

- To use Vence collars, the following steps are needed:
 - ➔ open the battery cover
 - ➔ install the battery in the collar housing
 - ➔ close the battery cover
 - ➔ label the collar housing (if needed)
 - ➔ 15 collars can be prepared in 30 minutes (experienced person)
- If smaller workforce or new people to collar assembly, might be best to prepare all collars prior to a collar deployment (remove battery if collar is not used).
- If larger workforce or people with experience, prepare around 30 collars before collaring and remaining collars can be prepared during collaring (one person full time).
- To be more efficient, a collar preparation station is recommended.

Collaring specifics for each VF company

- Vence recommends to test the collar fit by pulling the collar on top of the animal's head until the collar struggles to go over one ear. If the collar can be pulled over two ears, the collar is too loose.

Please note that cattle were safely restrained while collar fit was adjusted for demonstrative purposes only.



Too tight



Just right



Too loose



The University of Arizona

Virtual Fence Program



THE UNIVERSITY OF ARIZONA
Arizona
Experiment Station



Cooperative Extension



COLLEGE OF AGRICULTURE, LIFE & ENVIRONMENTAL SCIENCES
Natural Resources
& the Environment

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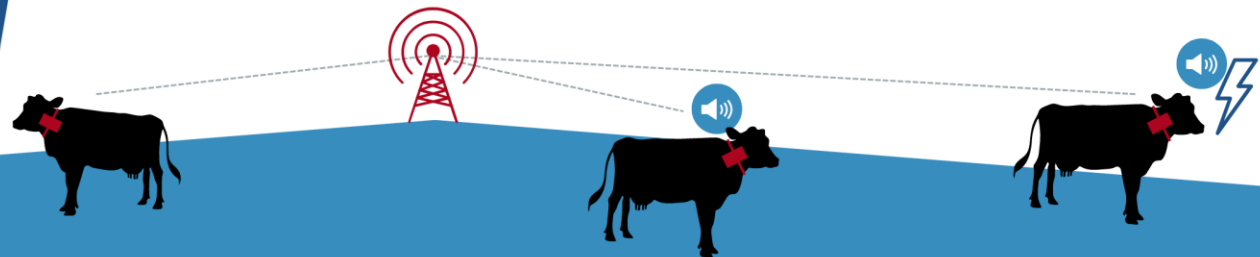
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This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2021-38640-34695 through the Western Sustainable Agriculture Research and Education program under project number WPDP22-016. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

This work is supported by the AFRI Foundational and Applied Science Program: Inter-Disciplinary Engagement in Animal Systems (IDEAS) [award no. 2022-10726] from the USDA National Institute of Food and Agriculture.

Additional funding was provided by Arizona Experiment Station, the Marley Endowment for Sustainable Rangeland Stewardship, Arizona Cooperative Extension, and The Nature Conservancy.



rangelandsgateway.org/virtual-fence

THANK YOU

ANY QUESTIONS?

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