



## Gathering Cows Using Virtual Fencing Methodologies

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Free-ranging livestock are classically controlled by herders. Holding, moving, or gathering free-ranging cattle requires flexible husbandry practices for efficient and effective low-stress animal management. Behavioral theory and practical experience indicates cattle can be taught to respond to auditory cues. Preliminary research has demonstrated that cows can be gathered autonomously using recorded audio cues associated with manual gathering. However, efficient gathering requires movement in the proper direction. Therefore, we believe using audio cues administered from directional virtual fencing (DVF™) equipment can facilitate proper animal orientation and facilitate the gathering of animals with minimal human intervention. Results from applying directional audio cues to free-ranging cows using hard- and software developed by the Massachusetts Institute of Technology (MIT) will be discussed in light of how many animals in a herd potentially need to be instrumented in order to successfully gather the entire group.

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