

Trail Cameras

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Overview

In the early 1990's, researchers began using trail cameras to study elusive rain forest animals. Since then, researchers have used automatically triggered trail cameras to learn more about wildlife species along with estimating wildlife populations. Today, livestock producers can use this tool to obtain information on local predators and even potentially identify problem animals. This can be an effective tool, because images captured can provide information on specific predators impacting livestock producers in areas with multiple predators present (e.g. bears, mountain lions and wolves). It is also affective in areas where scavengers may make depredation determinations difficult. Additionally, trail cameras can be left in the field continuously and cause little to no disturbance to wildlife.



Selecting a Trail Camera

Trail cameras come with many options that determine price, with basic cameras costing less than \$50. Some features to consider when purchasing a trail camera to track predators on livestock operations include:

| Night Vision | Infrared Flash | Memory Card | Video Mode | Sound | Remote Transfer | LED/LCD viewscreen |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Yes | Yes | Yes | Optional | Optional | Optional | Optional |
| Many predators are active at night, so you want to be able to capture images when they are active. | This is an essential feature. When images are taken at night there is no visible flash that will scare away animals. | This allows you to invest in larger cards that store more images and/or videos. If you purchase extra cards, you can exchange cards without removing cameras. | This will require a larger storage card to capture more data. | This will require a larger storage card to capture video with sound. | You will need <u>cell service</u> for this feature to send images from the trail camera to your smart phone. | Allows you to view images on trail camera versus viewing on computer later. |

Additional options when selecting a trail camera to capture images on a livestock operation include:

| Detection Range | Trigger Speed | Recovery Speed | Megapixels (MP) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| The distance a camera will detect movement. Important consideration when placing camera on reliable structures (e.g. tree, fence) and distance from key areas (e.g. water source, attractants, trail) | Time it takes between animal movement and image taken. To capture predators on the move, a lower trigger speed is preferred. | Time needed between images captured. A faster recovery speed will allow more images of animals while in the camera detection zone. | Image quality. Anything above 10MP will provide you with good images to identify predators. Larger megapixels allow you to zoom in with better clarity. |

Placement of Trail Cameras

The effectiveness of trail cameras is highly linked to placement, in order to capture images. Mount the camera on a solid post or tree that is not affected by wind or animal contact. If possible, find a location that is inconspicuous to deter animals from rubbing on it and/or people from stealing. Try to avoid pointing the camera directly east or west resulting in glare at sunrise and sunset. Remove tall grass and branches directly in front of the camera. If you question whether a tree branch or piece of grass will trigger the camera, remove it. Suggested locations to place cameras to capture predators on your ranch include:

Attractant – Bone Pile or Carcass



Trail – Livestock or wildlife path



Attractant – Water Source



Fence Line



Challenges

Trail cameras can come with frustration when setting them up and disappointment when checking images to only find out a cow licked the camera and you did not capture any pictures for the past 5 days since the angle was pointed down. Vegetation (e.g. weeds or tree limbs) can also trigger the camera, capturing hundreds of pointless images. However, these trivial challenges don't overshadow the opportunity to know more about the presence of predators in your operation.



Final Thoughts

The success of utilizing trail cameras to learn more about predators on your livestock operation requires patience in setting up cameras, attention to details when placing cameras in the field, and time devoted to checking images. As with any tool, success is dependent on operation-specific conditions.