

BALANCING FOOD SAFETY AND SUSTAINABILITY

Opportunities for Co-management – Managing Animal Movement

This is one of a series of resource sheets for food safety auditors that describe conservation practices commonly used in agriculture's production environment.



Images of Animal Trails and Walkways¹, Fences², and Access Control³ in the agricultural production environment

This information will help you to

Recognize practices that manage animal movement in the agricultural environment.

Understand the purposes these practices serve in the agricultural environment.

Recognize the language growers may use to explain why managing animal movement is important in their production environment.

Understand when audit standards may consider practices that manage animal movement as addressing farming impacts on the environment and biodiversity and/or as potential contributors to food safety risk.

¹ This practice is currently listed as [Animal Trails and Walkways #575](#) by the USDA Natural Resources Conservation Service. The NRCS National Practice Standards are updated regularly. Check website for latest standard information.

² This practice is currently listed as [Fence #382](#) by the USDA Natural Resources Conservation Service. The NRCS National Practice Standards are updated regularly. Check website for latest standard information.

³ This practice is currently listed as [Access Control #472](#) by the USDA Natural Resources Conservation Service. The NRCS National Practice Standards are updated regularly. Check website for latest standard information.

The agricultural environment is most often a multi-functional landscape. Animal and plant production may occur adjacent to each other. Additionally, good land stewardship may require that producers provide habitat connections for wildlife. The following practices may provide or improve access to forage, water, working/handling facilities, and/or shelter, improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites. These practices are often used together, functioning as a system to protect resources, and improve resource management.

[Animal Trails and Walkways](#) are established paths that allow management of animal movement to protect soil and water resources, and ecologically sensitive areas.

A [fence](#) serves as a constructed barrier to livestock, wildlife, or people. Wildlife movement and soil erosion potential on steep slopes should be considered. Fences can be constructed of a variety of materials, most commonly wood, barbed or smooth wire. They can also be electrified, suspended, or of woven wire for small animals.

[Access Control](#) is the practice of controlling access of animals, people or vehicles to an area. The purpose of Access Control Use Exclusion is to protect, maintain, or improve human health and safety and plant, animal, air, water, and aesthetic resources. Barriers used often include Fences #382 but can also be logs, boulders, earth fill, gates, signs, etc. Exclusion periods are clearly defined.

Advantages ¹	Disadvantages
Characteristics shared by practices	
<ul style="list-style-type: none"> Improve water quality by directing livestock traffic away from surface water and other sensitive areas. 	
Animal Trails and Walkways	
<ul style="list-style-type: none"> Animals are diverted away from ecologically sensitive areas, improving their function and value Grazing efficiency and distribution may be improved Animal access to forage, water, facilities, or shelter may be improved Soil disturbance near waterbodies is minimized 	<ul style="list-style-type: none"> Animal activity may become concentrated along trails and walkways
Fence	
<ul style="list-style-type: none"> Can keep people and animals out of sensitive areas Can regulate animal movement for improved pasture productivity 	<ul style="list-style-type: none"> May concentrate livestock trails along fence lines and lead to erosion Requires regular maintenance
Access Control	
<ul style="list-style-type: none"> Can keep people and animals out of sensitive areas 	

¹From [Farm Water Quality Management Practice Sheets](#) Animal Trails and Walkways #575, Fence #382, Access Control #472

In some audit standards these practices may help producers to demonstrate knowledge of the impacts of farming on the environment and efforts to maintain biodiversity. Depending on the practice, they may trigger concerns about animal activity, fecal contamination, or proximity to habitat for wildlife.

Scenarios

To reduce pressure on cropped areas, fences are installed to allow animal movement to water, focusing movement of animals to an open pathway. Fecal contamination and/or animal activity is easily monitored in open pathways. In addition, vegetated buffers are installed along fences to filter potential fecal movement to adjacent crop areas.

Diversion ditches are installed between fence lines and cropped areas to capture surface runoff where there is a potential for overland movement of fecal material to cropped areas.

Additional Resources

[Balancing Food Safety and Sustainability: Opportunities for Co-management](#)

Additional resources on co-management of food safety and sustainability may be found at on the UC Food Safety Website under the [Growers](#) link. You can also contact Mary Bianchi, UC Cooperative Extension Farm Advisor in San Luis Obispo County at mlbianchi@ucanr.edu.

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