

Domesticated Animals Factsheet – FSMA Produce Safety Rule



Domesticated animals such as dogs, cats, cattle, sheep, goats, pigs, horses, and poultry, as well as wildlife are big challenges to on-farm food safety, both in the field and packing shed. However, handling and monitoring domesticated animals is comparatively easier than wildlife (which is covered in the Wildlife Management factsheet). Although domesticated animals are often used in fields as draft animals, for wildlife management, and to graze on crop residues/culls, the fecal matter left behind in the field can be a significant source of human pathogens, including *E. coli* O157:H7, *Listeria*, *Salmonella*, and *Cryptosporidium*. Droppings from poultry, wild birds, and even pets are a potential source of pathogens as well. The pathogen load carried by domesticated animals is influenced by a number of factors such as age of animals, type of animal, rearing practices, and other factors. Domesticated animals, if not limited to secured areas on the farm, can cause cross-contamination and result in food borne disease outbreaks.

A recent example was a major *Listeria* outbreak on cantaloupe grown in Colorado in 2011 that killed 34 people. Investigators determined that one of the possible sources of contamination was an uncleaned/sanitized truck parked next to the packing facility that was used to haul culled cantaloupe to a cattle feeding operation. Thus, an intensive risk assessment of all aspects of a produce business, including potential contamination from domesticated animals, from field to customer is needed to reduce cross-contamination.

Exclusion of all the domesticated animals from fresh produce fields and handling areas is difficult but it can be managed using appropriate strategies. Considering the extent of food safety risks associated with domesticated animals, it is necessary to set up procedures and protocols limiting potential contamination.

§112.81 The requirements of this subpart (Subpart I) apply when a covered activity takes place in an outdoor area or a partially enclosed building and when, under the circumstances, there is a reasonable probability that animals will contaminate covered produce.

Working Animals

The FSMA Produce Safety Rule does not prohibit the use of working animals but recommends no working animals in the field when the edible portion of the crop is present, to minimize the food safety risks.

- If working animals need to be used during harvest, establish paths to minimize contact with covered produce.
- Have a standard operating procedure (SOP) to follow if an animal defecates in the field, such as establishing a no-harvest buffer zone.
- Develop SOPs for animal and manure handling, highlighting cross-contamination concerns, and include hand washing, cleaning and sanitizing tools, and practices to complete after animal handling.

§112.83(b)(2) states that: If significant evidence of potential contamination is found (such as observation of animals, animal excreta or crop destruction), you must evaluate whether the covered produce can be harvested in accordance with requirements of §112.112 and take measures reasonably necessary during growing to assist you later during harvest when you must identify, and not harvest, covered produce that is reasonably likely to be contaminated with a known or reasonably foreseeable hazard.

Pets (Dogs and Cats)

The FSMA Produce Safety Rule does not prohibit the use of “working” dogs and cats on farms, but their activity should be monitored, and corrective action plan should be established for any contamination risk posed.



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- Dogs are effective deterrents to wildlife, but they should be excluded from produce fields and packing areas when the harvestable or harvested produce is present.
- Cats used for rodent control should also be prohibited from fields and packing areas as they can carry the human pathogen *Toxoplasma gondii* that can cause serious illness.
- If cats or dogs are allowed in the field while the harvestable portion is present, to help with control of other wildlife, they should only be allowed in during the day while a worker is present to monitor them and clean up any feces they may leave behind.
- Visitors to the farm (including U-pick and farm stand customers) should be instructed to leave their pets at home for both food safety and liability reasons.



Best Practices

- I should have a written plan and take measures to limit domestic animal access to production fields and packing areas.
- I should not locate produce fields and packing areas adjacent to dairy, livestock, or poultry production facilities unless adequate barriers exist, such as ditches, mounds, grass/sod waterways, diversion berms, and vegetative buffer areas.
- I will consider adding barriers to prevent animal waste from adjacent fields or waste storage facilities from contaminating produce fields during heavy rains, especially if fresh produce is grown in low-lying fields or orchards.
- I should assure that if any animal holding areas are nearby, manure or urine runoff should be downhill, away from produce fields.
- I must prevent contamination of agricultural water sources or agricultural water distribution systems that will be used with produce from animal excreta and litter (FSMA Produce Safety Rule section §112.134(a)).
- I should exclude chickens, goats, and other free-roaming livestock from fresh produce fields.
- When both livestock and fresh produce production facilities are located on the same farm, I must implement a policy to require workers in animal holding areas to change their shoes or boots and clothing before entering fruit and vegetable fields to prevent cross-contamination (§112.32(b)(2)).
- I must require thorough washing of hands after touching animals or any waste of animal origin before handling produce (§112.32(b)(3)(v)).
- I should monitor for signs of animal entry such as the presence of feces or damage to the crop.
- I must train employees to identify contaminants and determine when to not harvest covered produce that is likely to be contaminated with a known or reasonably foreseeable hazard (§112.112).
- For grazed land, I should maximize the time between manure deposits and harvest of produce.

Considering the various food safety concerns associated with domesticated animals on farm, it is **required** to conduct a pre-harvest assessment of the produce field and identify any signs of fecal contamination and animal intrusion. Farmers should have a set of plans for corrective actions if produce is found to be contaminated (such as marking “no-harvest zones”). Although the FSMA Produce Safety Rule does not require a no-harvest buffer zone, it is an effective means of minimizing the cross-contamination risk from fecal contamination in the produce field. Documentation of all actions taken to reduce risks from domesticated animals is highly recommended.

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