## Intervention

## HAZARD ANALYSIS - RAW, GROUND - Ground Beef

1. Process Step	2. Food Safety Hazard	3. Reasonably likely to occur	4. Basis of Reasonably likely to occur	5. If Yes in Column 3, What Measures Could be Applied to Prevent, Eliminate, or Reduce the Hazard to an Acceptable Level?	6. Critical Control Point
1. Receiving -	Biological - None				
Packaging Materials	Chemical – Non-food grade materials	No	Letter of guarantee for packaging materials that are food grade makes hazards unlikely to occur.		
	Physical - None				
2. Receiving – Raw	Biological- Pathogens:	Yes	Raw meat is a known	Hazard of pathogen (including	
Meat	Salmonella; E. coli	(pathogens,	source of pathogens.	STEC) will be controlled by a	
	0157:H7, Non E. coli	including E.	Elder et al data	later CCP. Letter of guarantee	
	0157:H7 STECs and	<i>coli</i> 0157:H7	(supplied by FSIS)	is on file for each supplier of	
	BSE prions in SRMs;	and other STEC on beef not tested for presence of <i>E. coli</i> O157:H7 or other STEC)	states that E. coli O157:H7 is reasonably likely to occur in beef; USDA regards certain non- O157 STEC and O157:H7 STEC as adulterants in non- intact beef. SRM's	beef documenting the application of at least one intervention step against E. coli 0157:H7 and other STEC. Certificate from suppliers that product supplied is from animals under 30 months of age or animals that have had the SRM's removed prior to fabrication of the raw product.	

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		No (prions)	may be found in incoming product from animals over 30 months of age.		
	Chemical - None Physical - None				
3. Storage (Frozen/Refrigerated ) Raw Meat	Biological - Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs Chemical - None	No	SOP for storage makes hazards unlikely to occur.		
	Physical - None				
4. Tempering Frozen Meat	Biological -Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs	No	Tempering done according to SOP for Tempering/Thawing of Frozen Materials		
	Chemical - None				
	Physical - None				
5. Organic Acid Intervention Applied	Biological – Pathogens Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs	Yes	Presence of pathogens	Application of organic acid spray will control pathogens	1B
	Chemical - Improper organic acid level	No	SOP for mixing makes hazard		

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			unlikely to occur		
	Physical - None				
6. Grinding	Biological: Pathogens Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs Prions present in meat	No	SSOP makes contamination via equipment and workers unlikely to occur. Grinding is done quickly enough to prevent pathogen growth. Meat received from an outside source will accompanied by a certificate that		
	Chemical -	No	certificate that product is from animals under 30 months of age or animals that have had the SRMs removed prior to fabrication of the raw product. SSOP makes		

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	cleaning/sanitizing chemical residues.		chemical residue hazard unlikely to occur.		
	Physical - Metal	No	Visual observation makes hazards unlikely to occur		
7. Weighing Meat	Biological – Pathogens Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs	No	Weighing is done quickly enough to prevent pathogen growth. SSOP makes contamination unlikely to occur.		
	Chemical - None				
8. Moving to cooler before further steps (if necessary)	Physical - None Biological - Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs Chemical - None Physical - None	No	Cooler SOP makes hazard unlikely to occur.		
10. Storage of Packaging Materials	Biological - None				

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	Chemical -None				
	Physical - None				
9. Packaging and Labeling	Biological- Pathogens Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs	Yes Growth	Growth may occur if product exposed for an excessive time to a temperature that allows pathogen growth.	Controlled by monitoring time and product temperature	2B
	Physical - None				
11. Finished Product Storage	Chemical - None Biological - Salmonella; E. coli 0157:H7, Non E. coli 0157:H7 STECs	No	Product is handled according to SOP for Finished Product Storage		
	Chemical - None				

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	Physical - None				
12. Shipping or Retail	Biological – None				
	Chemical - None				
	Physical - None				

Raw, Ground Model