



Salmonella Module Risk Assessment Guide

Risk Factors	Risk Information ❖ Informational Statement ➤ Intervention tactic	Risk factors on this farm (level of implementation)	Farm Feasibility Y,N
1.) Biosecurity ❖ Contact with non-resident cattle and other livestock ❖ Resident Cattle & Calves ❖ Pets and pests ❖ Equipment	❖ Contact with non-resident livestock creates a risk for salmonella introduction into the herd ➤ Avoid opportunities for fence-line contact with neighboring livestock ➤ Do not commingle animals from different farms on pasture. ➤ Isolate introduced livestock for 2 weeks. ❖ Salmonella is easily spread between groups of resident cattle. Calves are a critical/frequent group at risk. ➤ Clean equipment, clothes and boots <i>between all</i> groups, particularly when entering or leaving calf housing ➤ Isolate sick cows and calves, handle them last ➤ Aggressively monitor and treat fresh and sick cattle ➤ Do not feed waste milk from sick cows to calves ➤ Maximize colostrum intake and quality for calves ➤ Maximize feed intake in the periparturient period. ❖ Pets and pests and waterfowl can carry salmonella. ➤ Restrict pet, rodent and bird access to stored feeds and feedbunks ➤ Implement rodent and bird control program ➤ Remove dead pests from feeds as soon as detected ❖ Equipment can be a means of transmitting Salmonella around the farm and between farms ➤ Equipment, and vehicles should be cleaned between groups of animals		
2.) Manure Management ❖ Salmonella exposure	❖ Manure may contain salmonella. ➤ Restrict access to surface water (originating either on or off-farm) which may contain manure. ➤ Allow 30 days between spreading manure on pasture and grazing or between spreading on crops and harvest ➤ Prevent manure runoff throughout all facilities. ➤ Avoid tracking of manure through facilities on equipment, vehicles and boots		
3.) Feed Management ❖ Contamination	❖ Feeds can become contaminated with salmonella in the feedmill or on the farm. ➤ Feeding equipment, particularly calf feeding buckets and bottles, should be washed between uses ➤ Do not use the same equipment for feed and manure ➤ Ask feed suppliers about quality and pest control in their mills, storage and transport ➤ Avoid feed contamination by runoff, human or equipment traffic or animals ➤ Do not use manure byproducts (solids) in cattle feeds		

<p>4.) Water Management</p> <ul style="list-style-type: none"> ❖ Contamination 	<ul style="list-style-type: none"> ❖ Water can become contaminated with salmonella from many sources <ul style="list-style-type: none"> ➤ Protect well heads from manure and septic runoff ➤ Restrict cattle access to surface water sources ➤ Restrict cattle access to flooded barnyards or lots 		
<p>5.) Facilities</p> <ul style="list-style-type: none"> ❖ Spread of salmonella 	<ul style="list-style-type: none"> ❖ Avoid walking across feed ❖ Manure laden water may contain salmonella <ul style="list-style-type: none"> ➤ Provide good drainage to reduce puddling and build up of water in cattle areas eg, silage effluent, flush water, rainwater runoff ❖ Wash and disinfect calf housing between calves to break cycle of salmonella growth 		
<p>6.) Quality Assurance</p> <ul style="list-style-type: none"> ❖ Antimicrobial usage ❖ Culling cows 	<ul style="list-style-type: none"> ❖ Use of antimicrobials can increase resistance of salmonella and decrease competitive flora <ul style="list-style-type: none"> ➤ Minimize use of fed antimicrobials ➤ Always follow label directions when using antimicrobials ❖ Non-ambulatory cows shed more salmonella <ul style="list-style-type: none"> ➤ Cull cows in a timely fashion, before they go down 		
<p>7.) Public Health</p> <ul style="list-style-type: none"> ❖ Salmonella can infect humans 	<ul style="list-style-type: none"> ❖ Salmonella can infect farm families; especially young children and the elderly. <ul style="list-style-type: none"> ➤ Hands should be washed well, using soap and warm water and scrubbing for 15 seconds, before returning to the household. ➤ Outer garments and footwear exposed to infected animals and their discharges should not be brought into the household. ➤ Do not drink raw milk. 		