RISKSUR - Reports Design

Name	Value
Surveillance system	Surveillance for Salmonella in cattle
Hazard name	Salmonella spp.
Surveillance objective	Case finding
Target Species	Cattle
Component name	Clinical Suspicion
Target Sector	Dairy, Beef, Mixed, AI breeders, Veal calves
Geographical Area Covered	Sweden
Data Collection Point	At the source (farm, wild life habitat, etc)
Study Type	Passive surveillance
Type of disease	Pathogen detection
Type of sample collected	Feces
Percentage covered	100%
Suspect Identification Criteria	Clinical signs must be notified
Obligations	Mandatory by national legislation
Notification Procedures	The farmer calls the vets who starts the notification procedure after assessing the clinical suspicion
Actions upon suspicions	samples collection from farm: feces (calves) + blood (adult beef) or milk (adult dairy)
Actions upon confirmation of disease	Movement restriction, cleaning and disinfection
A) Enhancement / Incentive name	Legal requirement
B) Target (e.g. public, farmers, veterinarians)	Veterinarians
C) Responsibility for implementing / overseeing	Veterinarians
D) Financial responsibility	not applicable
E) Frequency (e.g monthly, quartely, yearly)	not applicable
Other sample type	feces (calves) + blood (adult beef) or milk (adult dairy)
Pooling	no
Screening / first test	Fecal culture and ELISA
Confirmatory / second test	none
Any other testing protocol details	testing protocol refers to follow up to confirm suspicions
Mode of selection of units	Not applicable
Notes / Comments	Passive surveillance
Target unit level	Herd / Farm
Sampling unit	Individuals
Notes / Comments	suspected cases
Notes / Comments	sampling is not pre-defined but happens upon suspicion
Number of units in your target population	not applicable
Number of secondary units in your target population	not applicable
Notes / comments	sampling is not pre-defined but happens upon suspicion
Indicate the SENSITIVITY for the testing protocol	not available
Notes / comments	testing protocol can vary because samples are collected only after suspicion
Indicate the SPECIFICITY for the testing protocol	not available
Notes / comments	testing protocol can vary because samples are collected only after suspicion

Name	Value
Comments / Notes	sampling is not pre-defined but happens upon suspicion
Comments / Notes	sampling is not pre-defined but happens upon suspicion
Criteria selection	not applicable
Descriptive information needed	sampling happens upon suspicion
Descriptive information needed	sampling happens upon suspicion
Description of collection timeline	sampling happens upon suspicion
Describe who are the agents who will collect samples/information.	veterinarian
Consider whether a data/sample collection protocol is available, or needs to be prepared.	not applicable
What will be the frequency of data/sample collection?	after notification of suspicion
Consider whether training is needed for sample collection.	no
Plans for monitoring / reviewing compliance in the sample collection / data generation process e.g The right no. of samples collected monthly.	not applicable
Consider whether a data/sample transfer protocol is available.	postal delivery
Describe the frequency.	at occurrence
Consider whether training is needed for data transfer.	no
Analysis performed by	lab technician
Sectors Missed	beef
Target criteria	Sampled material
Component name	Suspected cases at necropsy
Target Sector	
Geographical Area Covered	Sweden
Data Collection Point	Diagnostic laboratory
Study Type	Passive surveillance
Type of disease	Pathogen detection
Type of sample collected	Tissue (post-mortem)
Percentage covered	unknown
Suspect Identification Criteria	at routine necropsy, suspected cases (gross paghological lesions) are further investigated
Obligations	Mandatory by national legislation
Notification Procedures	The pathologist starts the investigation whenever there is a suspect of Salmonella infection
Actions upon suspicions	samples collection from farm: feces (calves) + blood (adult beef) or milk (adult dairy)
Actions upon confirmation of disease	Movement restriction, cleaning and disinfection
A) Enhancement / Incentive name	Legal requirement
B) Target (e.g. public, farmers, veterinarians)	Pathologist
C) Responsibility for implementing / overseeing	Pathologist
D) Financial responsibility	not applicable
E) Frequency (e.g monthly, quarterly, yearly)	not applicable
Other sample type	feces (calves) + blood (adult beef) or milk (adult dairy)
Pooling	no
Screening / first test	Fecal culture and ELISA
Confirmatory / second test	none

Name	Value
Any other testing protocol details	testing protocol refers to follow up to confirm suspicions
Mode of selection of units	Not applicable
Notes / Comments	Passive surveillance
Target unit level	Herd / Farm
Sampling unit	Individuals
Notes / Comments	suspected cases
Notes / Comments	sampling is not pre-defined but happens upon suspicion
Number of units in your target population	not applicable
Number of secondary units in your target population	not applicable
Notes / comments	sampling is not pre-defined but happens upon suspicion
Indicate the SENSITIVITY for the testing protocol	not available
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Comments / Notes	sampling is not pre-defined but happens upon suspicion
Criteria selection	not applicable
Descriptive information needed	sampling happens upon suspicion
Descriptive information needed	sampling happens upon suspicion
Description of collection timeline	sampling happens upon suspicion
Describe who are the agents who will collect samples/information.	pathologist
Consider whether a data/sample collection protocol is available, or needs to be prepared.	not applicable
What will be the frequency of data/sample collection?	after notification of suspicion
Consider whether training is needed for sample collection.	no
Plans for monitoring / reviewing compliance in the sample collection / data generation process e.g The right no. of samples collected monthly.	not applicable
Consider whether a data/sample transfer protocol is available.	postal delivery
Describe the frequency.	at occurrence
Consider whether training is needed for data transfer.	no
Analysis performed by	lab technician
Other or Details (Target sector)	dead calves younger than 6 months sent for necropsy
Sectors Missed	beef
Target criteria	Sampled material
Component name	Necropsy of dead calves
Target Sector	
Geographical Area Covered	Sweden
Data Collection Point	At the source (farm, wild life habitat, etc)
Study Type	Event-based

Name	Value
Type of disease	Pathogen detection
Type of sample collected	Tissue (post-mortem)
Other or Details (Target sector)	dead calves younger than 6 months sent for necropsy
Percentage covered	unknown
Suspect Identification Criteria	all dead calves <6mo that are sent for necropsy are tested for Salmonella
Notification Procedures	Every dead calves sent for necropsy is tested for salmonella
Actions upon suspicions	samples collection from farm: feces (calves) + blood (adult beef) or milk (adult dairy)
Actions upon confirmation of disease	Movement restriction, cleaning and disinfection
A) Enhancement / Incentive name	Legal requirement
B) Target (e.g. public, farmers, veterinarians)	Pathologist and Farmers
C) Responsibility for implementing / overseeing	Pathologist
D) Financial responsibility	not applicable
E) Frequency (e.g monthly, quarterly, yearly)	not applicable
Other sample type	feces (calves) + blood (adult beef) or milk (adult dairy)
Pooling	no
Screening / first test	Fecal culture and ELISA
Confirmatory / second test	none
Any other testing protocol details	testing protocol refers to follow up to confirm suspicions
Mode of selection of units	Not applicable
Notes / Comments	Passive surveillance
Target unit level	Herd / Farm
Sampling unit	Individuals
Notes / Comments	suspected cases
Notes / Comments	sampling is not pre-defined but happens upon suspicion
Number of units in your target population	not applicable
Number of secondary units in your target population	not applicable
Notes / comments	sampling is not pre-defined but happens upon suspicion
Indicate the SENSITIVITY for the testing protocol	not available
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Comments / Notes	sampling is not pre-defined but happens upon suspicion
Comments / Notes	sampling is not pre-defined but happens upon suspicion
Criteria selection	not applicable
Descriptive information needed	sampling happens upon suspicion
Descriptive information needed	sampling happens upon suspicion
Description of collection timeline	sampling happens upon suspicion
Describe who are the agents who will collect samples/information.	pathologist

Name	Value
Consider whether a data/sample collection protocol is available, or needs to be prepared.	not applicable
What will be the frequency of data/sample collection?	after notification of suspicion
Consider whether training is needed for sample collection.	no
Plans for monitoring / reviewing compliance in the sample collection / data generation process e.g The right no. of samples collected monthly.	not applicable
Consider whether a data/sample transfer protocol is available.	postal delivery
Describe the frequency.	at occurrence
Consider whether training is needed for data transfer.	no
Analysis performed by	lab technician
Component name	lymph-node sampling at abattoir
Target Sector	
Geographical Area Covered	Sweden
Data Collection Point	Abattoir
Study Type	Continuous data collection
Type of disease	Pathogen detection
Type of sample collected	Tissue (post-mortem)
Other or Details (Surveillance objective)	Estimate prevalence: This component aims at estimating prevalence, but whenever a carcass tests positive, trace back and trace forward actions are taken to achieve case detection
Other or Details (Target sector)	mainly beef (but also dairy cows sent to slaughter)
Sectors Missed	animals not sent to slaughter
Target criteria	Point of data collection
Percentage covered	95%
Actions upon suspicions	samples collection from farm: feces (calves) + blood (adult beef) or milk (adult dairy)
Pooling	no
Screening / first test	PCR
Confirmatory / second test	none
Mode of selection of units	Sampling
Target unit level	Other
Notes / Comments	Animal
Sampling design	Multiple stage
Notes / Comments	first stage is selection of abattoirs
Number of units in your target population	15
Number of secondary units in your target population	700000
Notes / comments	abattoirs (PSU) & carcasses (SSU)
Indicate the SENSITIVITY for the testing protocol	not available
Indicate the SPECIFICITY for the testing protocol	not available
Number of PSU in the population (given before)	15
Design prevalence	0.10
Desired confidence	0.95
Desired power	0.80
Sensitivity	0.9
Comments / Notes	Refers to abattoirs, and in turn to infected herds
Number of SSU in the population (given before)	700000

Name	Value
Design prevalence	0.01
Desired confidence	0.90
Desired power	0.80
Comments / Notes	Refers to infected carcasses and vary according to type of abattoir (big, which slaughter 90% of cattle or small which slaughter 10%)
Criteria selection	only healthy animals sent to abattoir
Sample size calculated (PSU level)	15
Sample allocation strategy chosen	Census
Descriptive information needed	All the abattoirs
Sample allocation strategy chosen	Simple random
Descriptive information needed	Random sample of N carcasses
Description of collection timeline	samples are collected daily
Describe who are the agents who will collect samples/information.	abattoir workers
What will be the frequency of data/sample collection?	every day
Consider whether training is needed for sample collection.	no
Plans for monitoring / reviewing compliance in the sample collection / data generation process e.g The right no. of samples collected monthly.	to be decided
Describe the frequency.	batches?
Consider whether training is needed for data transfer.	no
Component name	Bulk milk sampling
Target Sector	Dairy
Geographical Area Covered	Sweden
Data Collection Point	At the source (farm, wild life habitat, etc)
Study Type	Survey
Type of disease	Antibody detection
Type of sample collected	Milk
Sectors Missed	beef
Target criteria	Sampled material
Percentage covered	25%
Actions upon suspicions	to be decided
Pooling	bulk milk is a pooled sample by definition
Screening / first test	ELISA
Confirmatory / second test	ELISA + fecal culture
Mode of selection of units	Census
Notes / Comments	all dairy farms
Target unit level	Herd / Farm
Sampling unit	One sample per group
Notes / Comments	one bulk milk sampling per herd
Sampling design	One stage
Number of units in your target population	4700
Number of secondary units in your target population	-
Notes / comments	dairy herds
Indicate the SENSITIVITY for the testing protocol	60%
Indicate the SPECIFICITY for the testing protocol	99.70%
Number of PSU in the population (given before)	4700
Design prevalence	0.01

Name	Value
Comments / Notes	All units are sampled
Comments / Notes	one bulk milk sample per herd
Criteria selection	only lactating cows
Sample size calculated (PSU level)	4700
Sample size calculated (SSU level) - varies per size of the PSU, in which case you can enter a range, average or describe the sample size per PSU size	1
Sample allocation strategy chosen	Census
Descriptive information needed	All dairy herds affiliated to dairy association
Sample allocation strategy chosen	Census
Descriptive information needed	1 sample per farm
Description of collection timeline	1 sample per farm every 3 months
Describe who are the agents who will collect samples/information.	Eurofins
Consider whether a data/sample collection protocol is available, or needs to be prepared.	during sampling for milk quality controls
What will be the frequency of data/sample collection?	every 3 months
Consider whether training is needed for sample collection.	no
Plans for monitoring / reviewing compliance in the sample collection / data generation process e.g The right no. of samples collected monthly.	to be decided
Consider whether a data/sample transfer protocol is available.	Eurofins delivers to SVA
Describe the frequency.	once every three months
Consider whether training is needed for data transfer.	no
Other or Details (Target sector)	dead calves younger than 6 months sent for necropsy
Component name	Bulk milk sampling RISK-BASED
Target Sector	Dairy
Geographical Area Covered	Sweden
Data Collection Point	At the source (farm, wild life habitat, etc)
Study Type	Survey
Type of disease	Antibody detection
Type of sample collected	Milk