



Levers to reduce antibiotic use in french and canadian beef farming : a multilevel perspective

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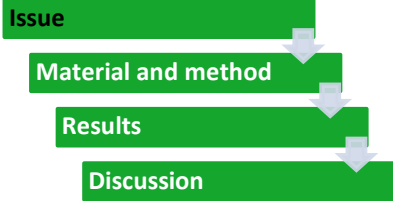
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Sant'Innov PSDR Project





How many of you plan to go home healthy ?



Evaluation and purchase



Transport, stress confinement



Weighing, mowing preventive therapy, batching



Pathogens commingling



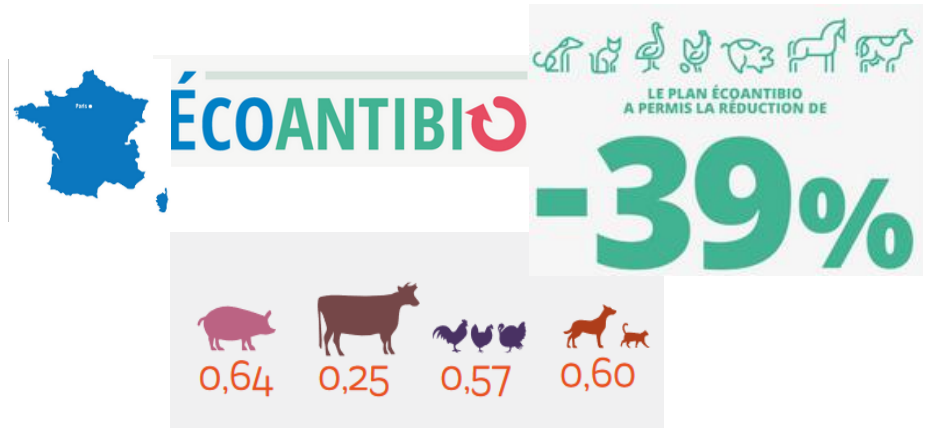
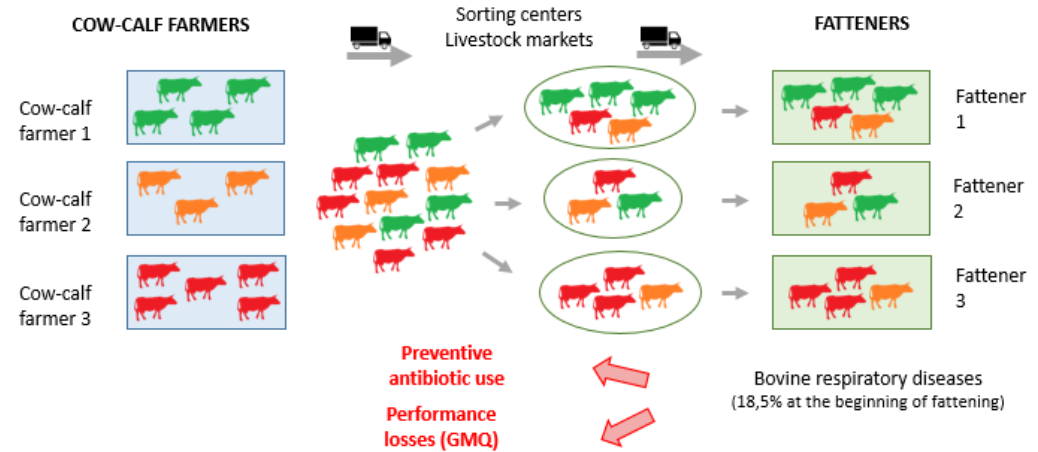
Transport, stress, confinement



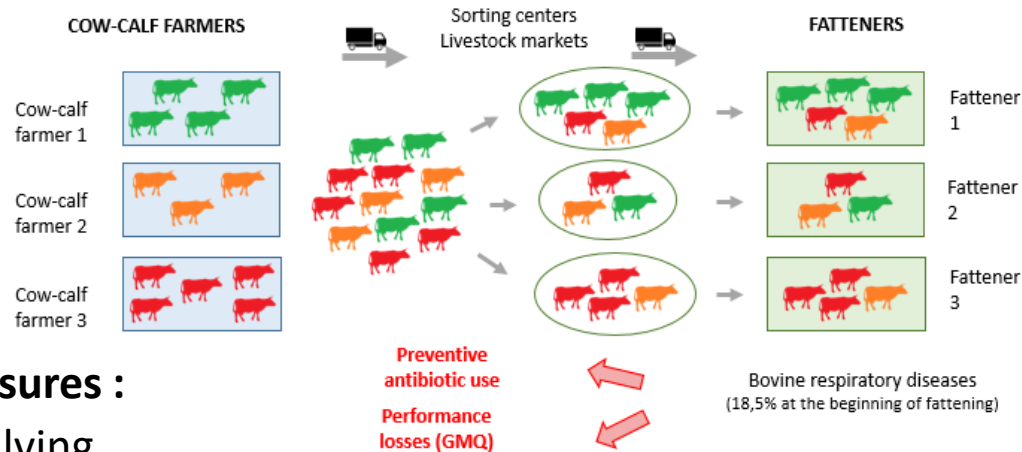
What about reducing antibiotic use ?



- Antibioresistance : a public health concern (700 000 deaths ww/year)
- A potentiel contribution of animal health
- Governmental communication campaigns and regulation (Europe)
- Bovine vet medicine : less ALEA but also less decrease, and still preventive use (40%)



Risk mitigation through health management measures



Preventive measures :

- Season of calving
- Weanling long before stress
- Careful feed transition
- Early vaccination

Logistics :

- Higher weight at sale
- Shorter duration of transportation
- Less commingling
- Direct transportation

A strong technical interaction :

The risk is at the fatterer's stage whereas most measures are at cow-calf farm stage



Aim and material and method



Issue : What levers
to reduce preventive antibiotic use in beef farming ?

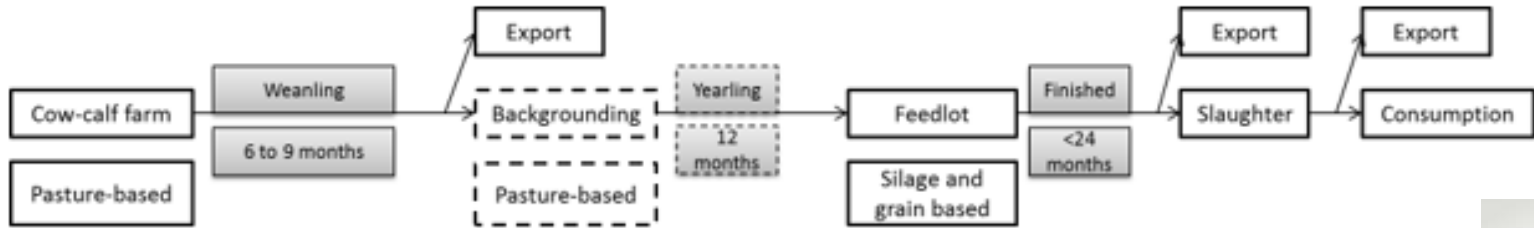


- 54 interviews
- 6 field observations
 - 16 interviews



- Triangulation thanks to grey literature
- Based on description of value chain

Similarities and discrepancies



Cow calf : 50 cows

Indoor fattening / batches of 15

Ear tag + green card

Beef's cows' population (4 Millions)
 50% export



Cow calf : 69 cows

Castration + hormones

60% backgrounding

Outdoor fattening

huge feedlots (batches of 250)

Retained ownership

Livestock markets or salesmen

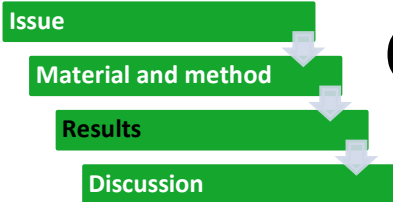
Relational contracts

Internet market auctions

Few information




Ear tag





Cow calf farmers' motivations : money but not only



	Barriers	Existing incentives	Potential incentives
Farm & animal level	<ul style="list-style-type: none"> • Workload • Difficult calves manipulation 		<ul style="list-style-type: none"> • Hired vaccination teams
Logistics of batches	<ul style="list-style-type: none"> • Availability of fodder/dryness 		
Market & supply chain	<ul style="list-style-type: none"> • Poor margin • No feedback on performance • Opportunistic commercial behavior 	<ul style="list-style-type: none"> • Premium for vaccination • Contracts (France) • Information & reputation of cow-calf farmers through internet (Canada) • Retained ownership (Canada) 	<ul style="list-style-type: none"> • Antibiotic free brands + valuation  
Regulation			<ul style="list-style-type: none"> • Subsidies (vaccination)

Middlemen and fatterners' motivations : Information / risk mitigation

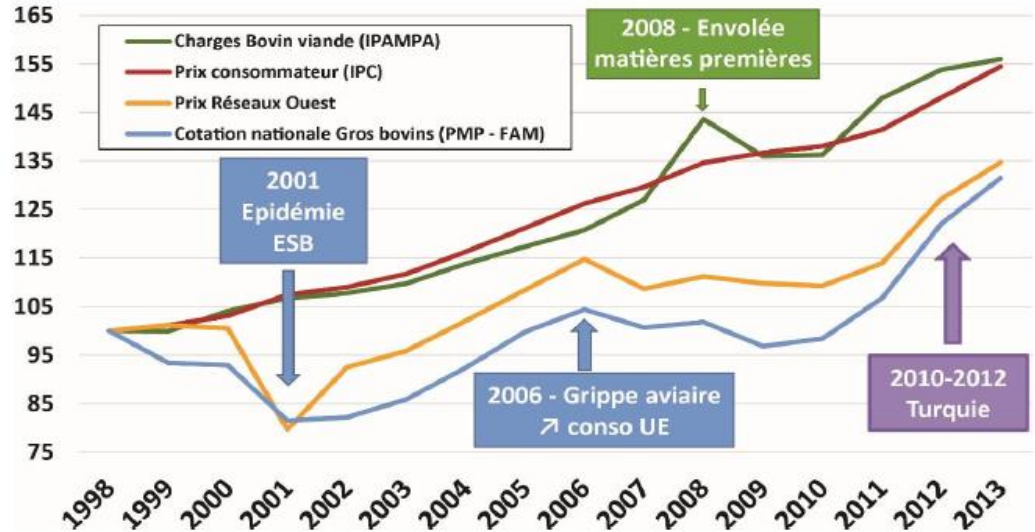


	Barriers	Existing incentives	Potential incentives
Farm & animal level	<ul style="list-style-type: none"> High risk of morbidity Workload of metaphylaxis Vet's shortage (Canada) 		<ul style="list-style-type: none"> Insurance
Logistics of batches	<ul style="list-style-type: none"> No information on health issues Batching submitted to logistics Demand for homogeneous batches (age, weight, size) Supply issues in favor of livestock markets 	<ul style="list-style-type: none"> Risk analysis tools (France) 	<ul style="list-style-type: none"> Better traceability through block chains and internet Economical inefficiency of commingling (GMQ and BRD risk)
Market & supply chain		<ul style="list-style-type: none"> Contracts (France) Information & reputation of cow-calf farmers through internet (Canada) Certification (vaccination) (Canada) 	<ul style="list-style-type: none"> Societal demand and industry reputation
Regulation		<ul style="list-style-type: none"> Communication campaigns Regulation on antibiotics (Europe – France) 	<ul style="list-style-type: none"> Higher price of antibiotics Penalty and reputation of vets

Discussion : beef farming industry issues



- A small added value :



Inosys network, IDELE, 216

- Main concerns about :

- Export and international markets
- Dryness and reproduction
- Consumers' demand about new products



Issue

Material and method

Results

Discussion

Discussion : a sociocultural barrier



Evaluation and purchase

- Economic performance are no better if animals have the same age, weight, size
- No commingling of origins, vaccination and duration of transport are much more important

What is a nice batch ?





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References :

Bager Et Al., 2014 ; Carpentier, 2017 ; Catley And Al, 2012 ; Coronado Et Al., 2010 ; Hefferman Et Al., 2008 ; Ochieng' And Hobbs, 2016 ; Paul Et Al., 2013 ; Poizat Et Al., 2019 ; Raynaud Et Al., 2005 ; Reimer, 2006 ; Russel Et Bewley, 2013 ; Tonsor And Schroeder, 2015





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Thank you for your attention
Any questions ?

