

A contrasting situation in France as regards the control of Johne's disease

FESASS' TECHNICAL DAYS

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Introduction

Johne's disease is not a currently notifiable disease in France

Actions relies on farmer's initiatives due to economic losses

Farmers are deeply concerned through their local animal health organizations : the GDS network



A national program targeting both infected and free herds

1) A national control plan for severely MAP- infected herds

- ❖ since 2000 ; cattle with clinical signs of J's confirmed by diagnostic test
- ❖ annual individual analysis of all the animals over 24 months of age
- ❖ early culling encouraged by financial support
- ❖ specially for heavy shedders
- ❖ **3% of the herds** enrolled



A national program targeting both infected and free herds

2) A national **certification** program

- ❖ defined since 2002 by National Association for Animal Health Certification (AFSE), upgraded since 2017
- ❖ based on individual animal testing (>24 months)
- ❖ by ELISA >> PCR
- ❖ **A few of the herds involved** (especially breeding farms)



A national program targeting both infected and free herds

3) Reference Laboratory

Excretion / antibody levels

Determine with serological test (**less expensive**) a threshold value that identifies the maximum number of strong excretory animals with the best compromise between sensitivity and specificity



	Kit A	Kit B	Kit C	Kit D
Threshold	91	142	221	48
Sensitivity	92,5 [90,2-94,4]	91,5 [89,0-93,4]	92,5 [89,8-94,1]	91,9 [89,5-93,8]
Specificity	81,4 [79,7-82,8]	80,4 [78,7-81,9]	80,0 [78,3-81,5]	79,7 [77,5-80,7]

Virginie POISSON (OIE Reference laboratory of Paratuberculosis- Anses)



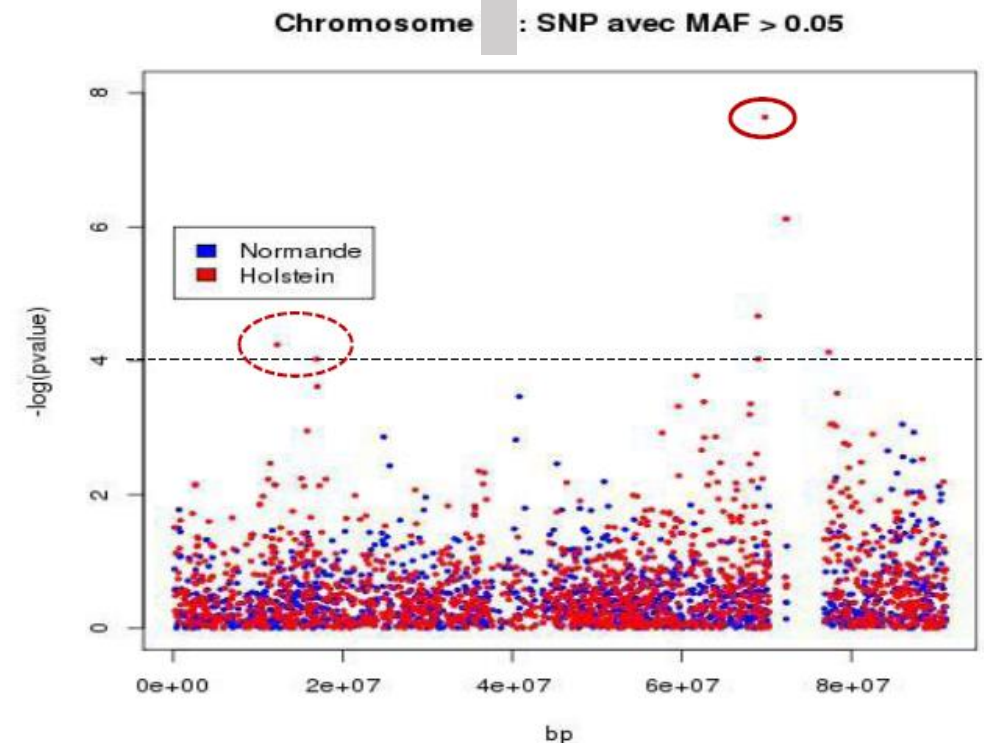
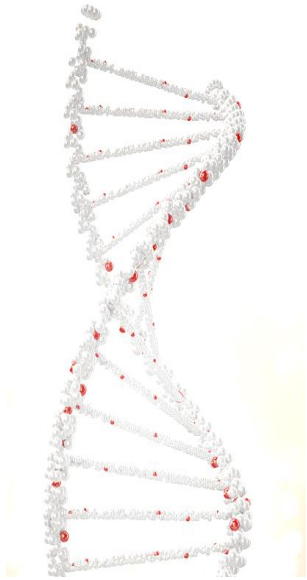
Research to enhance control and develop integrated strategies

- ❑ A research project named « PICSAR », involving research groups (INRA, ONIRIS) and private partners (GDS network, ALLICE, Apis-gene)
- ❑ Evaluate innovative control strategies in cattle populations, combining genetic investigations and improved risk management, at regional level
- ❑ 3 000 animals (infected versus free) whose phenotypic data are well established, in Holstein or Normande herds



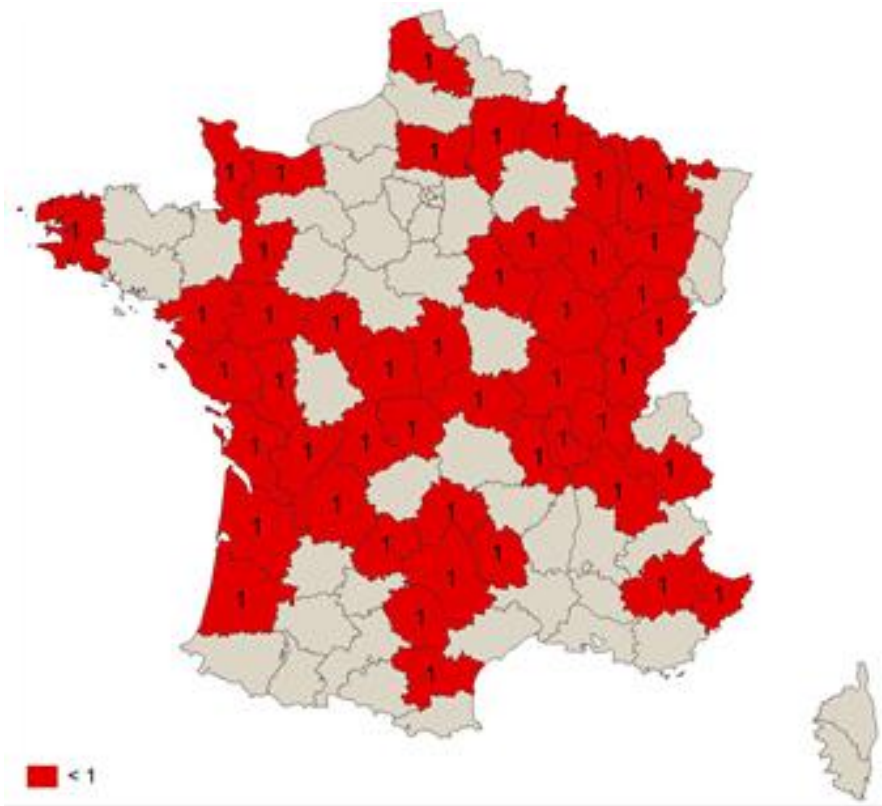
Research to enhance control and develop integrated strategies

- ❑ Biological materiel for the reference laboratory
- ❑ Characterization of the level of infection
- ❑ Modelisation of the spread of JD
- ❑ Genetic index production in few month ($He \approx 30-40\%$)



An overview of the situation

National investigation* in progress...



- ❑ Scope : JD and actions from GDS network
- ❑ 48 answers - **Last answer : 19-10-04**
- ❑ Local animal health organizations with actions
 - Cattle : 47
 - Goat : 28
 - Sheep : 19

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GDS and local laboratories networks

October 2019



An overview of the situation

(Result being validated)

Actions in Cattle (47 GDS)

National standard certification	National standard of individual control program	Other type of certification	Other monitoring plan	Other individual control program	Other action	Number of answers
X				X		16
X	X					8
X						6
				X		4
X			X	X		4
	X					2
					X	2
X	X		X			1
X		X		X		1
X		X	X	X		1
X		X	X	X	X	1
X			X	X	X	1



An overview of the situation

(Result being validated)

Actions in Goat (28)

Monitoring plan	Individual control plan	Introduction test	Other	Nb of answers
	X			14
			X	5
X	X			4
	X	X		2
	X		X	1
		X		1
	X	X	X	1

Actions in Sheep (19)

Monitoring plan	Individual control plan	Introduction test	Other	Nb of answers
	X			9
			X	6
		X		1
X	X			1
X		X		1
	X	X	X	1



Conclusion

Works in progress on several issues in France

- ❖ Control plan in MAP-infected herds
- ❖ Program to certify herds
- ❖ Control plan combining genomics and modelling risk management
- ❖ Role of GDS France, head of our GDS network





Thank you for your attention

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