Farm Management Monitor

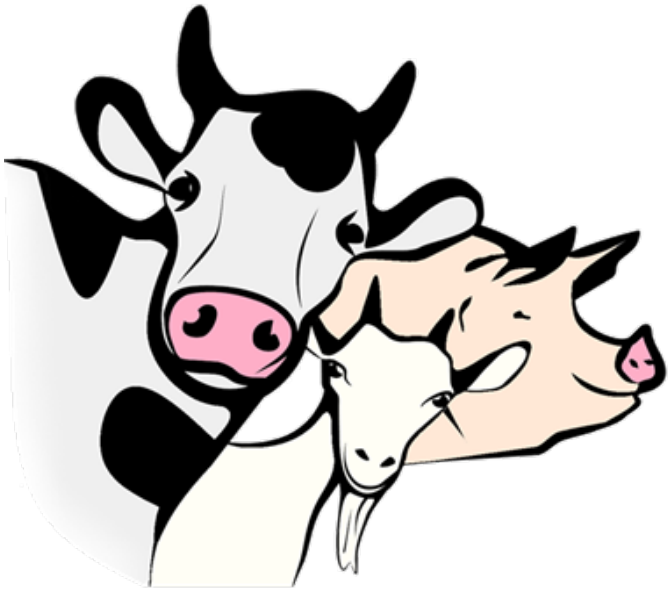
Supporting Sustainability of Farming

Cultivating Trust

Transparency

Value

ELDC



ELDC

European Livestock Diagnostic Center

Farm Management Monitoring systems

Platform for scientific studies

The same platform that is used for the Farm Management Monitor can be used for studies of effects of additives/pharma on herd-based systems

Diamond V™

Dairy-FMM

Platform for scientific studies

The same platform that is used for the Farm Management Monitor can be used for studies of effects of additives/pharma on herd-based systems

The effects of the use of NutriTek (a postbiotic of Diamond V) at Salmonella-compromised farms on
-Salmonella-shedding
-Milk-production
-Other factors

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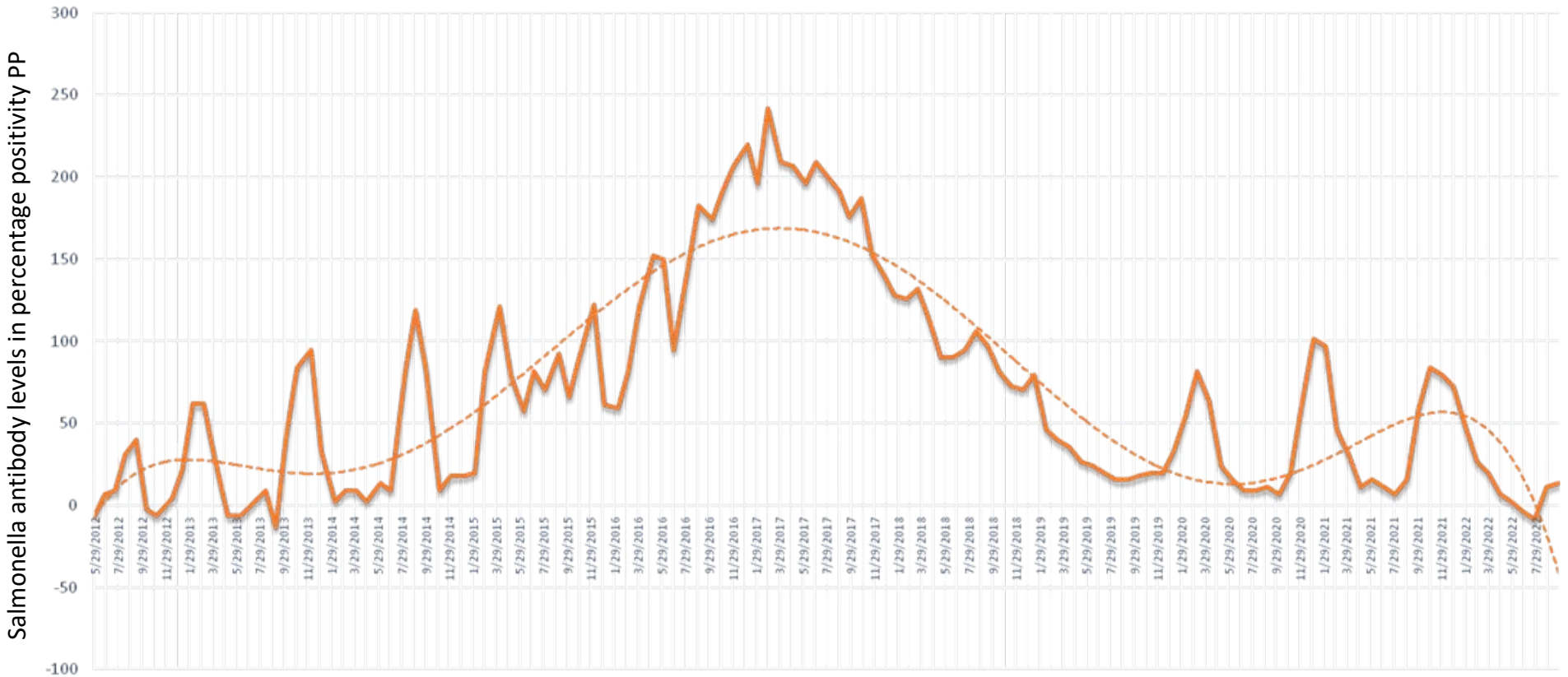
Dairy-FMM

Salmonella antibody levels in the bulk tank of a farm with high bacterial pressure



History of Salmonella antibody levels in the bulk tank of farm Xxy

Dairy-FMM

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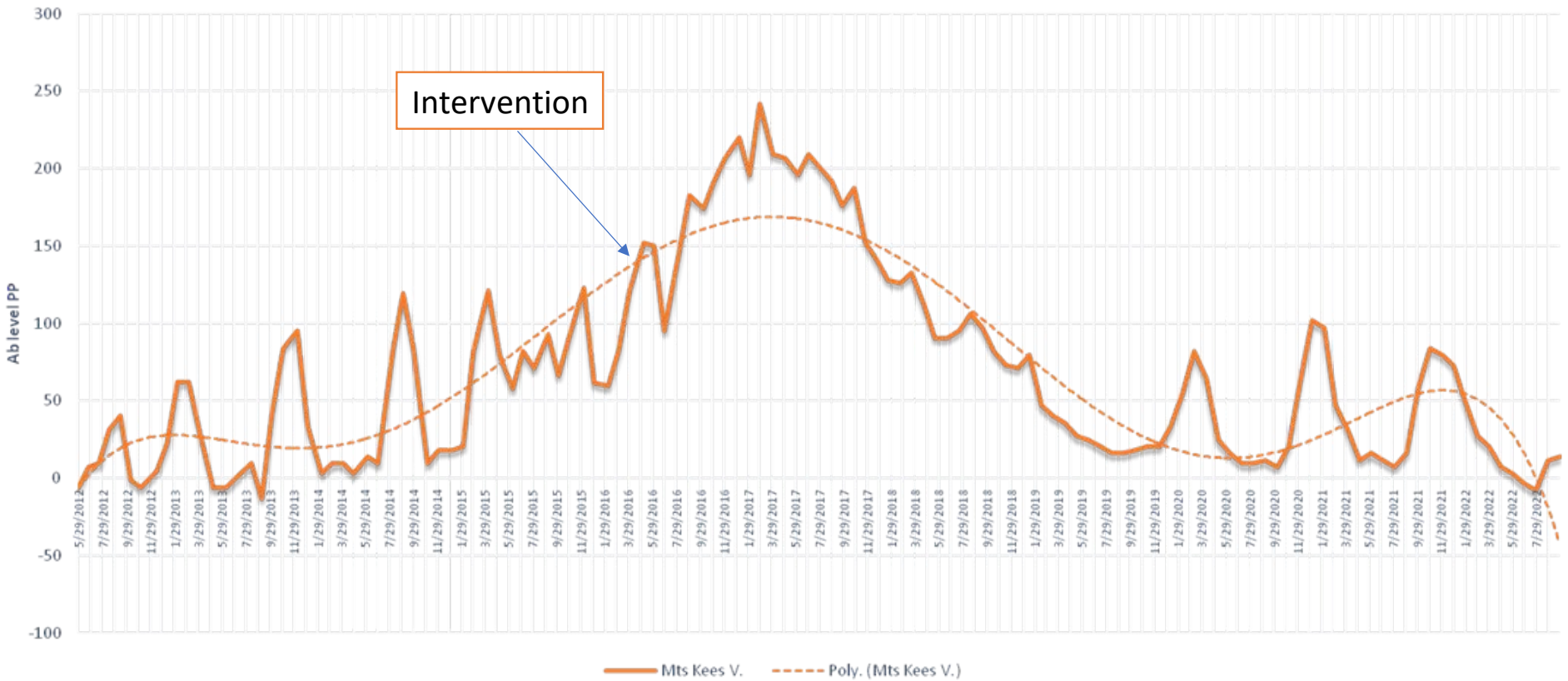

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Diamond V

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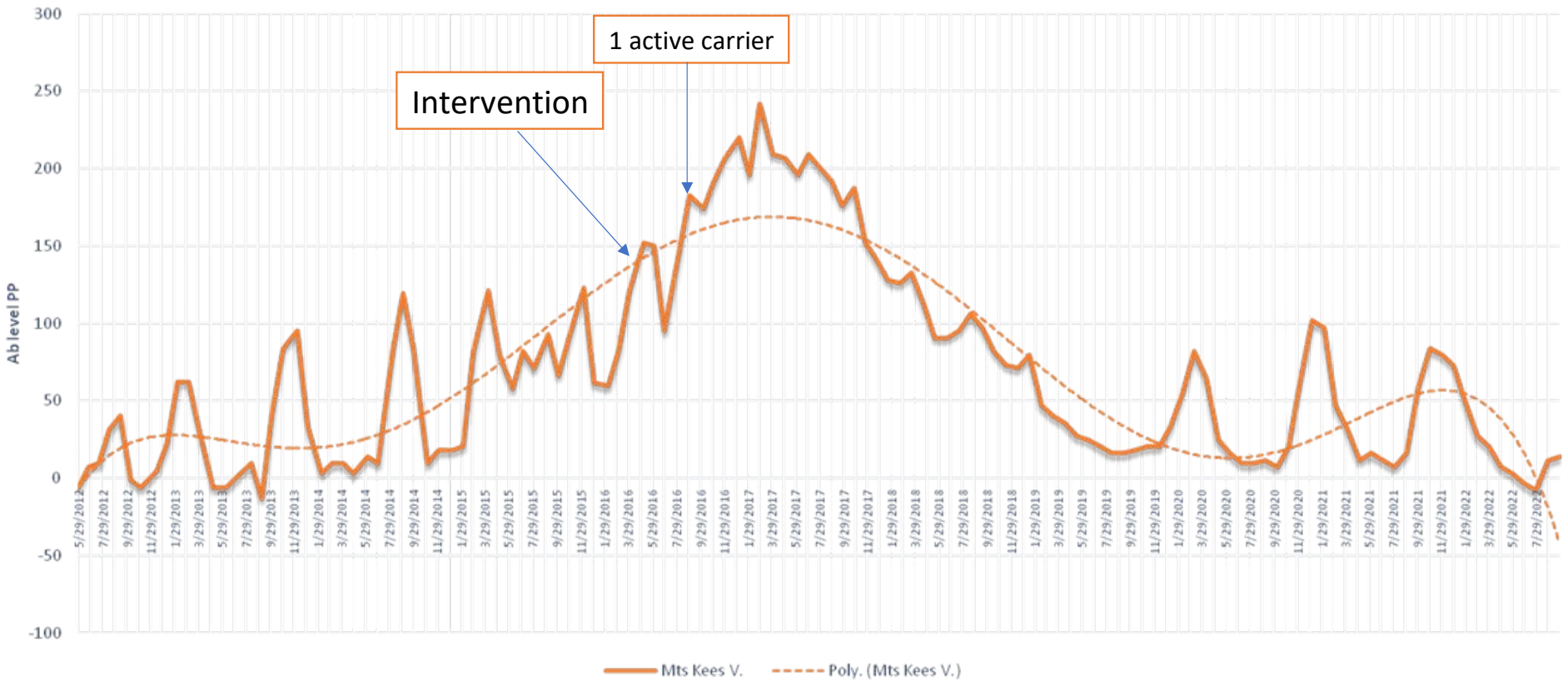

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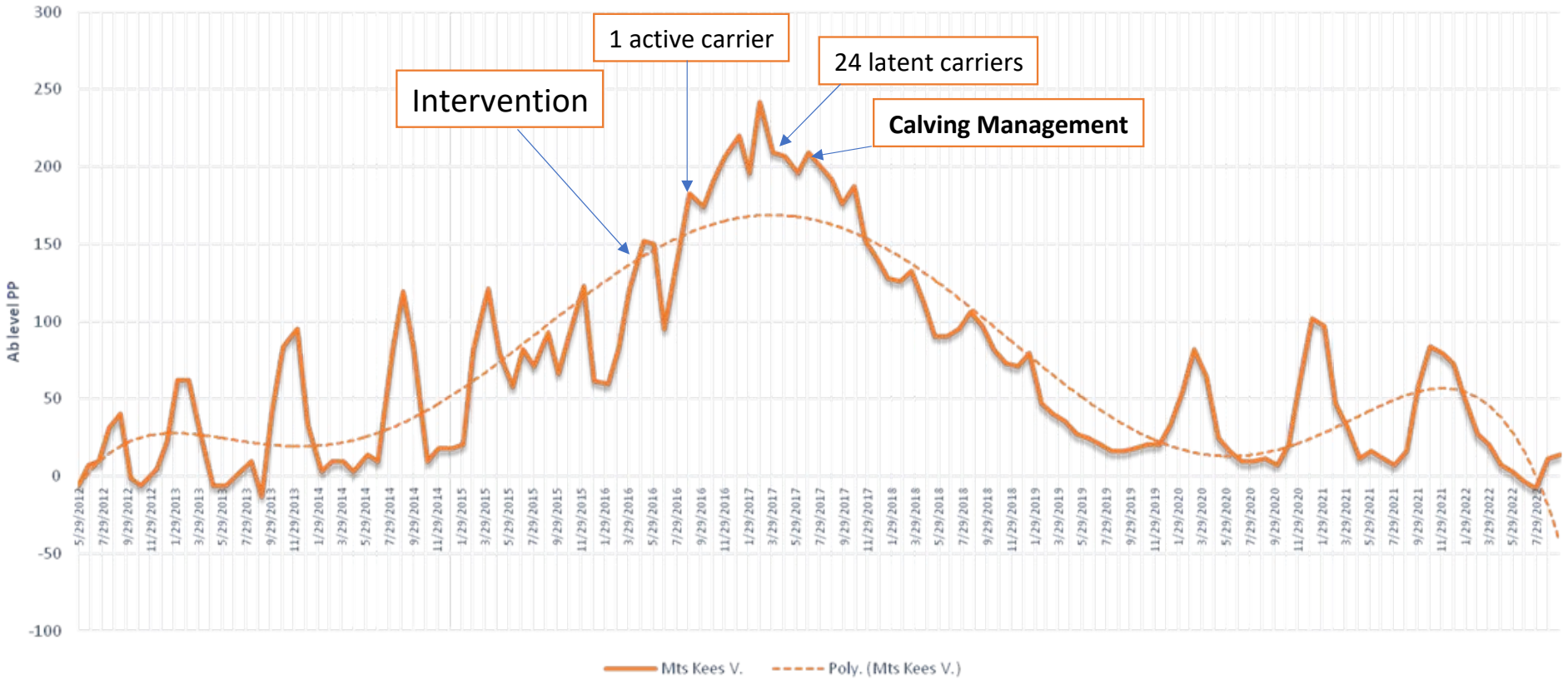

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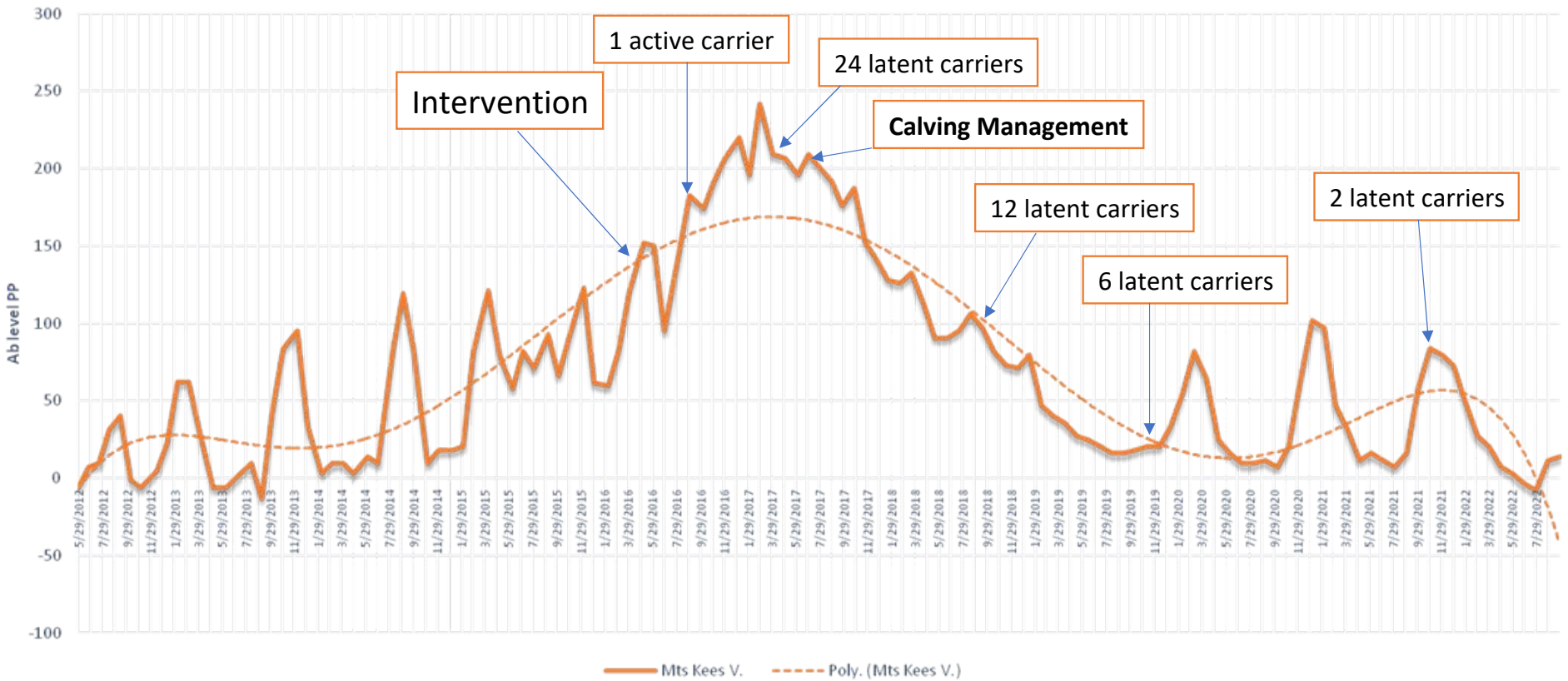

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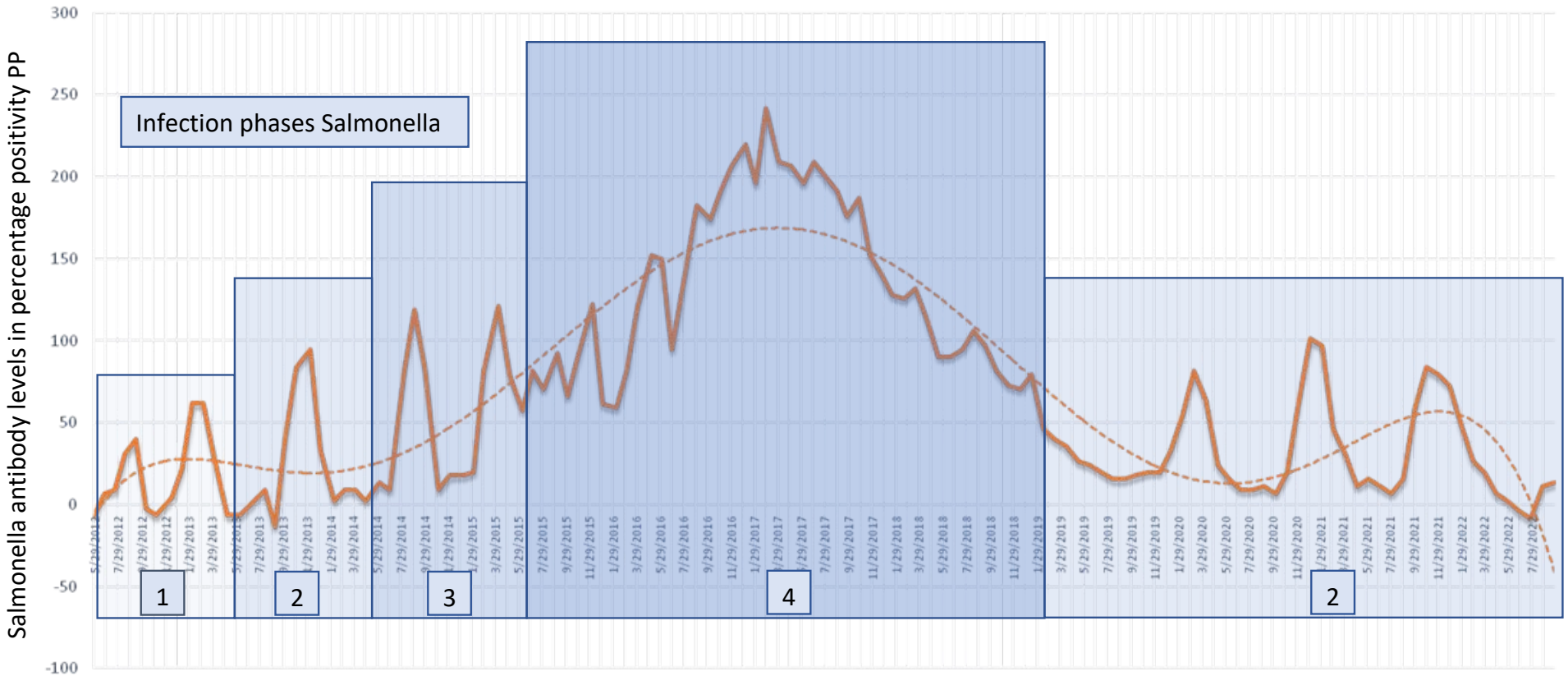

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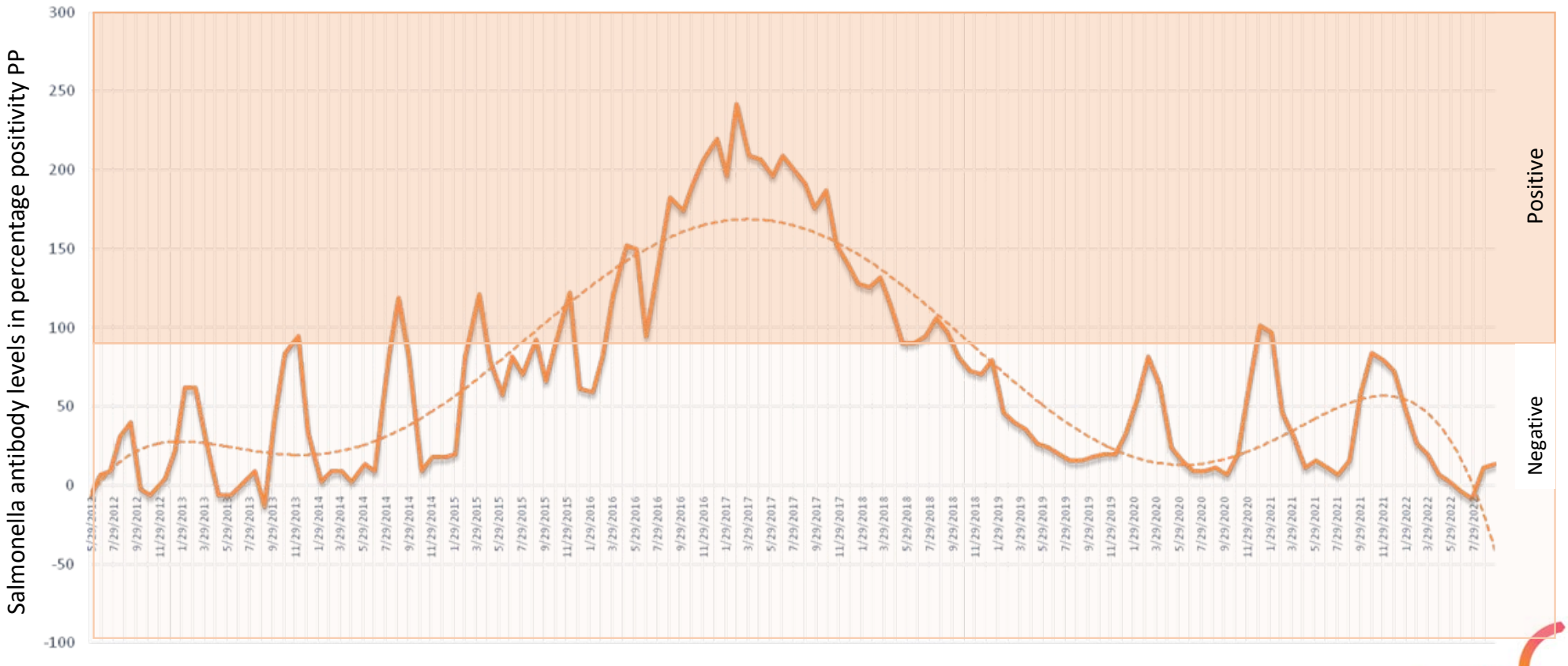

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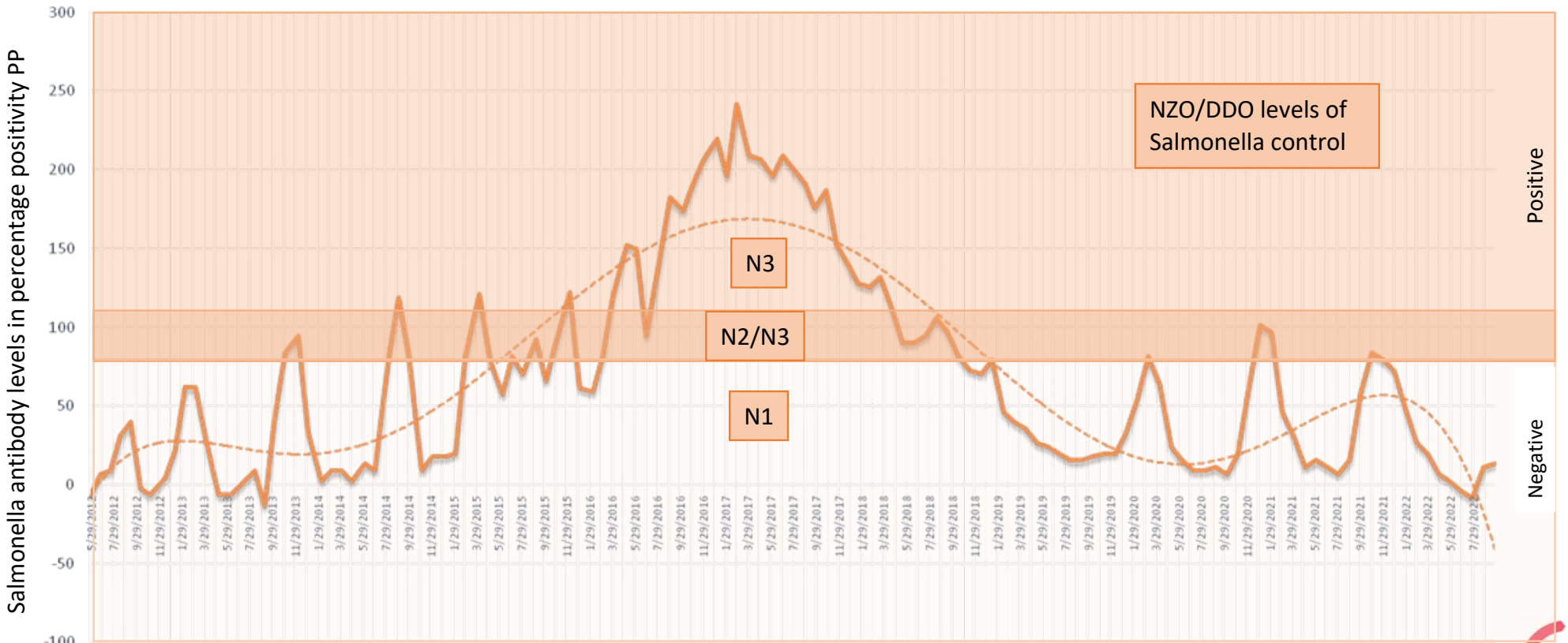

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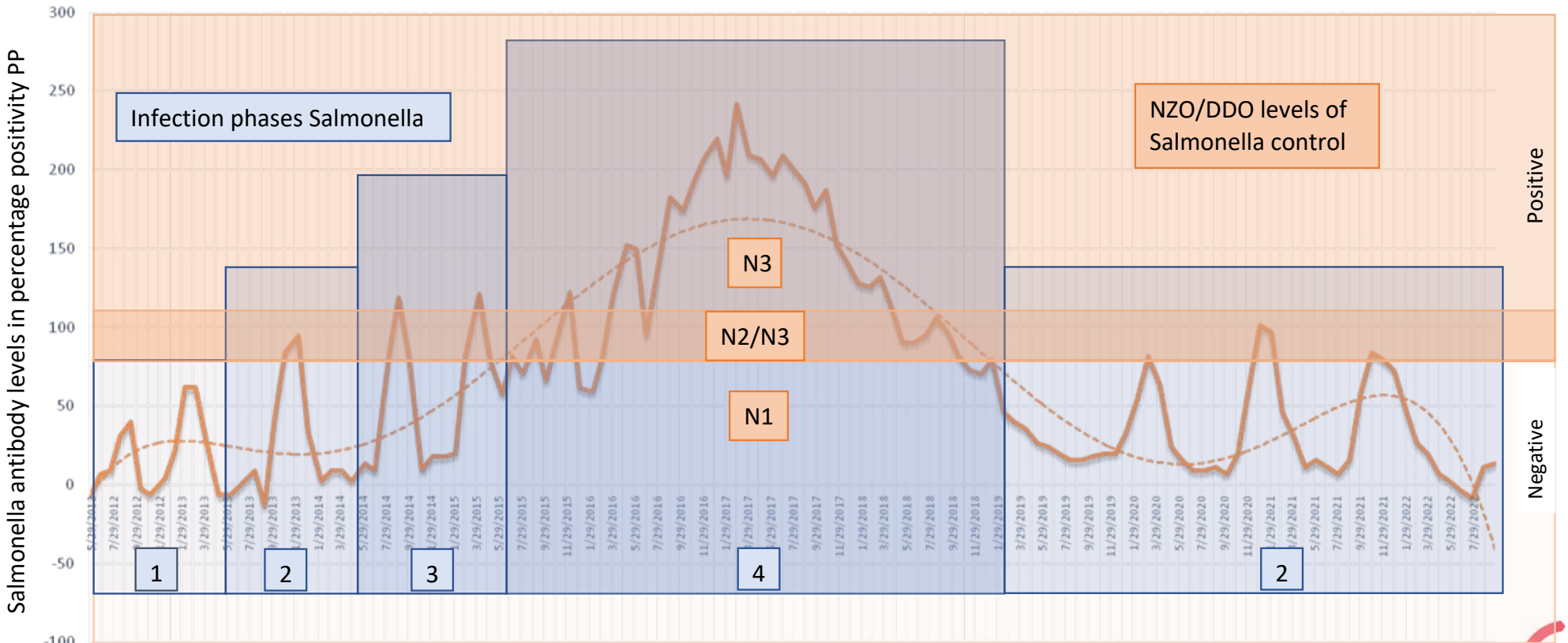

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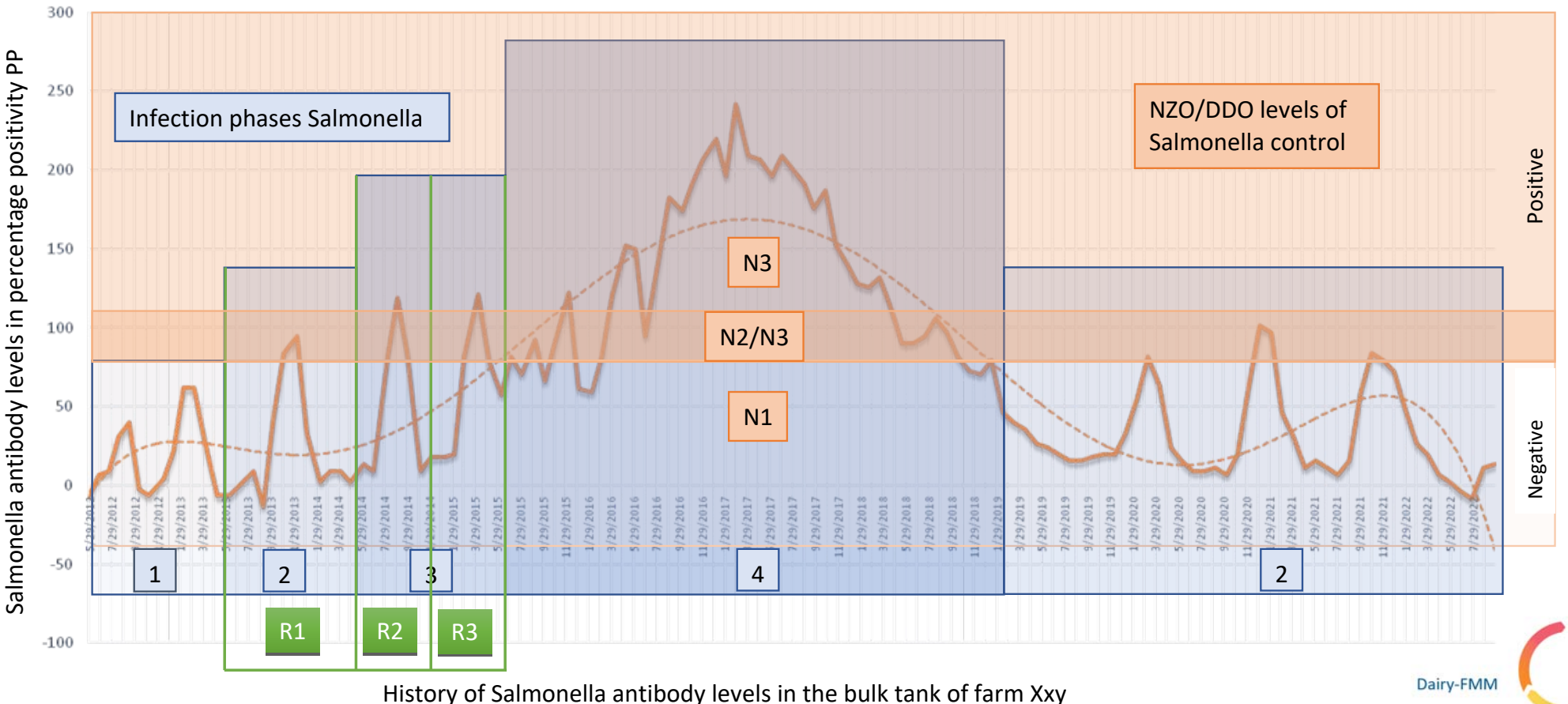


Research groups Salmonella/NutriTek study

Diamond V

Study design

30 farms in total

-10 farms in each Research group R1, R2 and R3

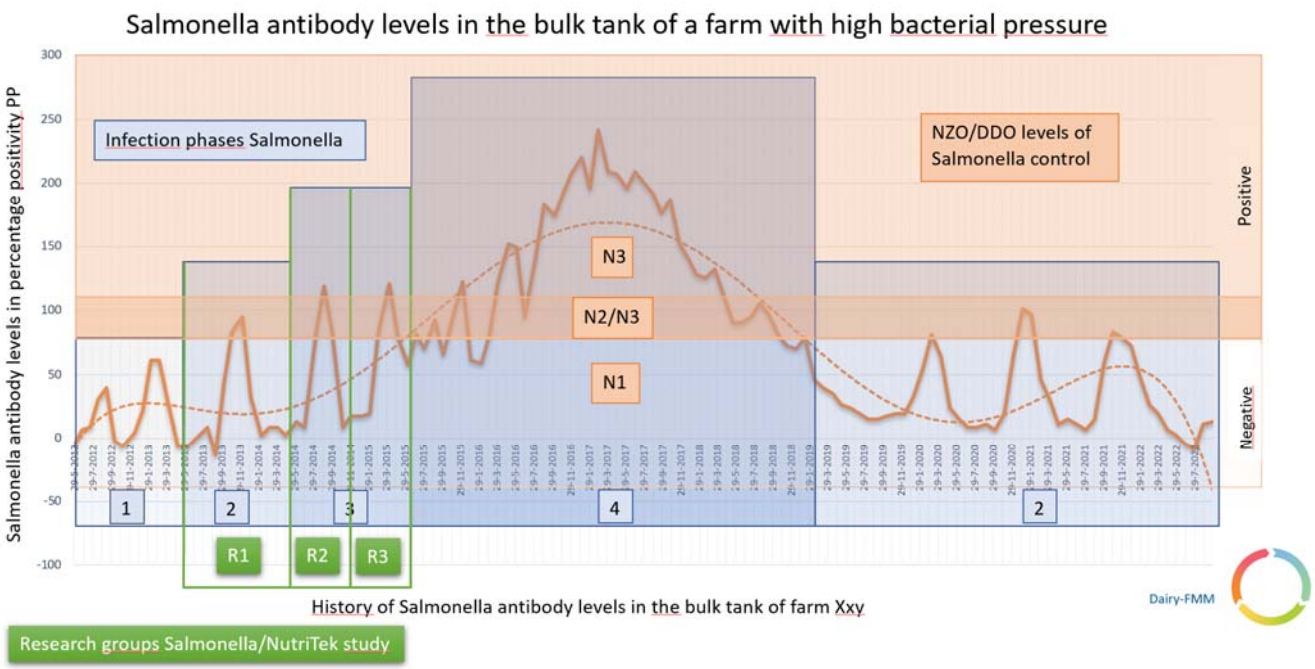
-5 farms on NutriTek, 5 farms on placebo

-Double blind, only nutritionist knows who gets what

-6-10 months pre-study, no treatment, run lab monthly tests for Salmonella Ab, minerals, collect milk production and repro-data

-All farms start with treatment at the same time

Results



Salmonella Ab

Salmonella Ab PP	Research group R 1A	R 1B
> 100 (N3)	9	0
>80 (N2/N3)	17	1

Salmonella Ab PP	Research group R 2A	R 2B
> 100 (N3)	8	5
>80 (N2/N3)	10	8

Salmonella Ab PP	Research group R 3A	R 3B
> 100 (N3)	17	20
>80 (N2/N3)	33	40

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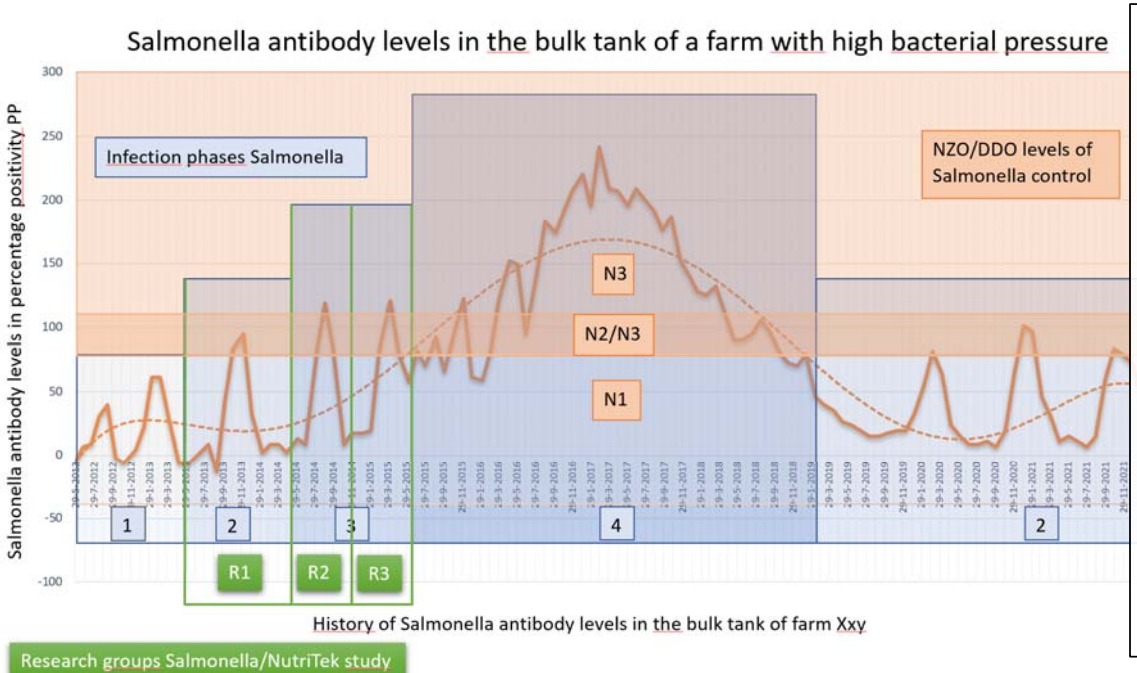
Dairy-FMM

Results



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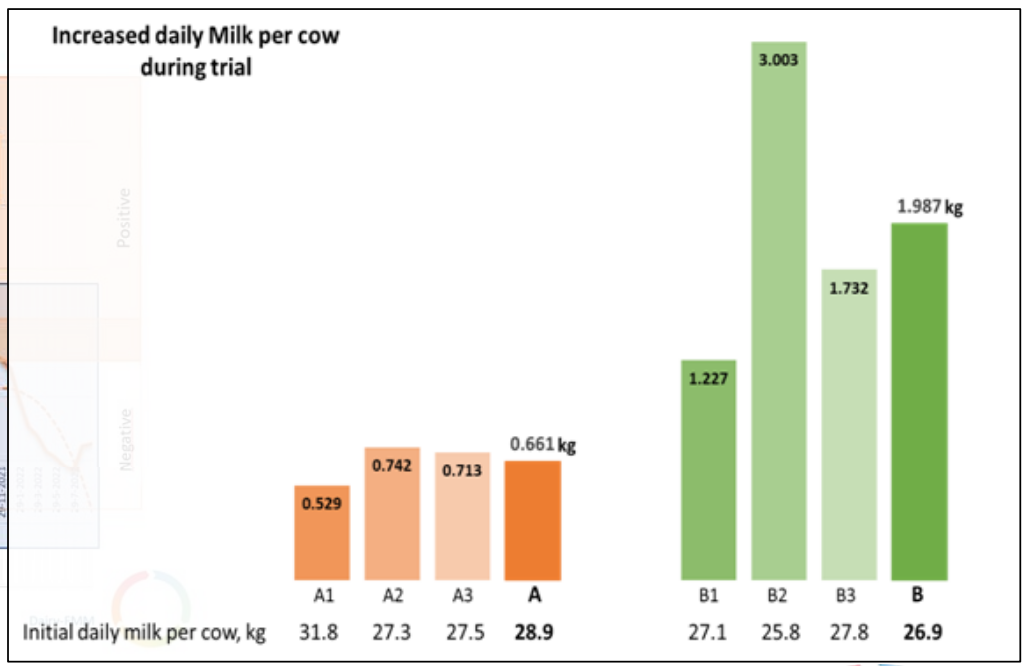

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Dairy-FMM

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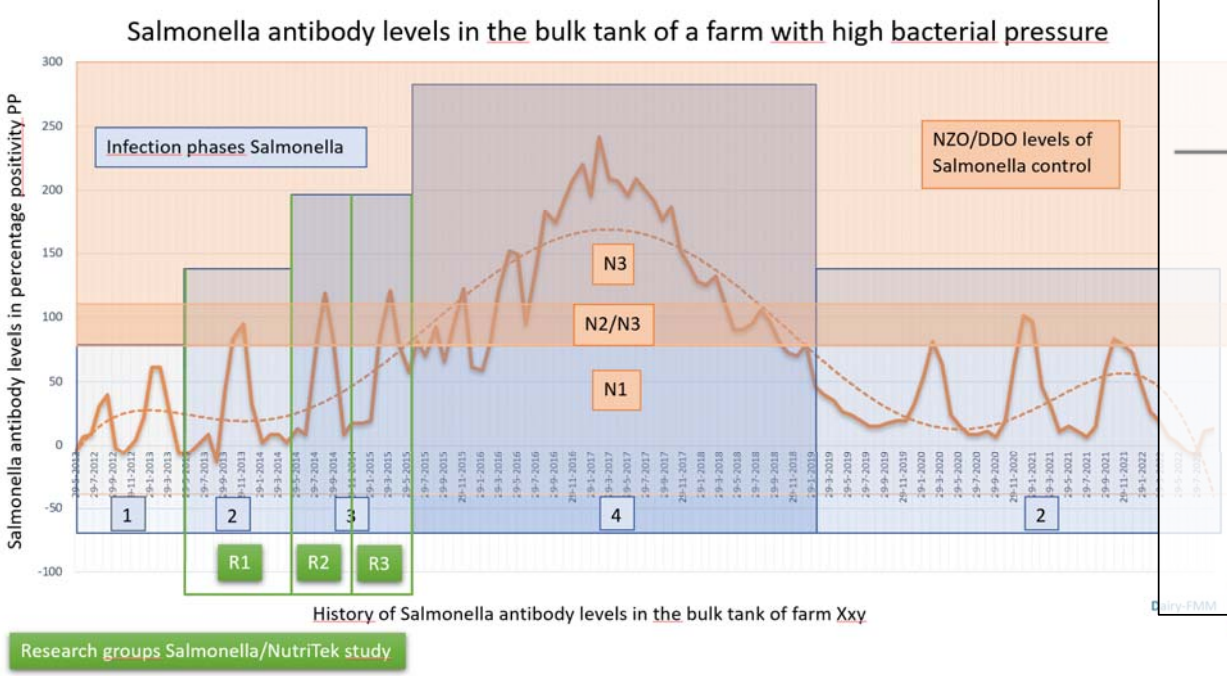

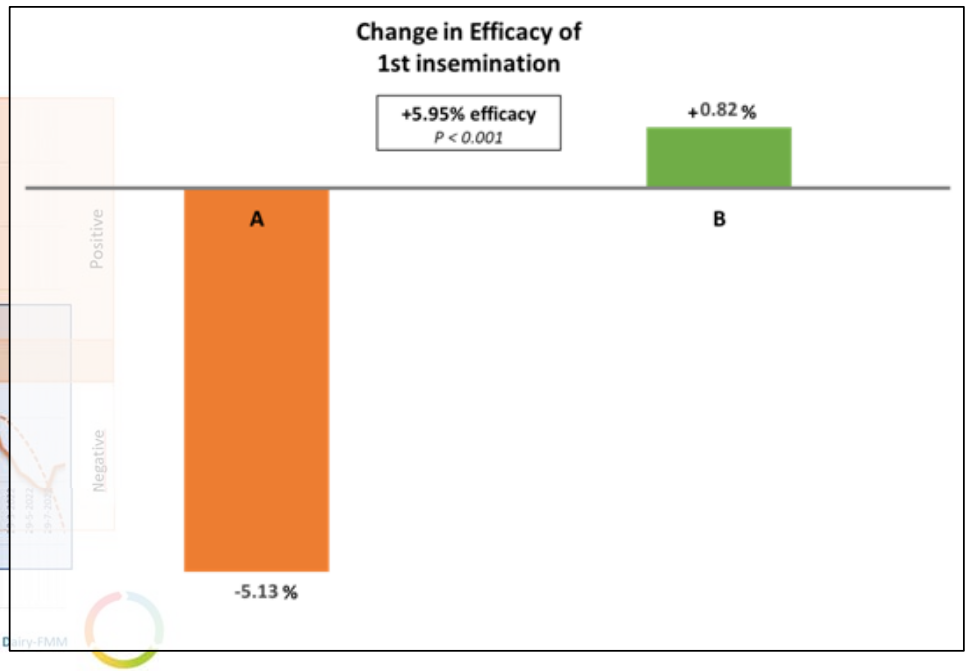

Diamond V™

Dairy-FMM

Conclusions

-Dairy-FMM with production data coupling is an elegant platform to study effects of additives and pharma.

-The use of a postbiotic/NutriTek suppresses the shedding of the Salmonella bacteria at lower numbers of latent carriers present at a farm (as is the case with a majority of farms).

-The use of a postbiotic/NutriTek ensures good milk production even at increased levels of bacterial pressure and shedding (+1.3 kg/cow/day).

-The use of a postbiotic/NutriTek ensures improved first insemination rates even at increased levels of bacterial pressure and shedding (+6%).

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	Gemiddelde PP Tankmelk	%dieren besmet	SD	Gem-SD	Gem+SD	SEM	95% CI	N*
PrioCheck Salmonella Ab (Thermo Fisher, PN 7610770) PP = percentage positiviteit tankmelk (titer)	128	41,3	13	115	141	1	125-131	87
	94	20,7	15	79	109	2	91-98	87
	54	10,3	14	40	68	2	51-57	87
	27	5,2	8	19	35	1	25-29	85
	11	2,6	5	6	16	1	10-12	85
	2	1,3	4	-2	6	0,4	1-3	84
	-2	0,6	4	-6	2	0	-3--2	85

SD, standaard deviatie (standaard afwijking van het gemiddelde)

SEM, nauwkeurigheid van het gemiddelde (precision of mean)

95% CI, betrouwbaarheidsinterval, 95% kans dat het monster in de range valt

*N aantal metingen, 7 verschillende productie-lots