
SecurePig®



SIGNS Laboratory

SIGNS Laboratory, part of the IRSEA Group, is the world leader in pheromone-based biosolutions for livestock, committed to the discovery of innovations that significantly improve animal health and welfare.

SIGNS solutions express the art of combining nature and science.

All the active ingredients in SIGNS products are analogues of pheromones or other secretions emitted by an organism in the environment: a truly ecological, sustainable and healthy approach. The constituents are molecules produced naturally by organisms during their metabolism.

SIGNS Laboratories provide innovative, accessible and ecofriendly biosolutions to meet the economic, environmental and welfare needs of livestock producers.

SecurePig® Origin

The manifestations of stress and their consequences are well known in pigs. They include behavioural manifestations such as fighting, stereotyped behaviour (bar biting), but also physiological disturbances (digestive disorders, reduced immune defences, endocrine disturbances), all of which contribute to the deterioration of animal welfare and zootechnical performance.

Despite the improvements brought about by the evolution of breeding methods, environmental enrichment and genetic selection, many causes of stress remain unavoidable: handling, transport, presence of fellow pigs, variations in the environment and waiting in the slaughterhouse.

The study of pig behaviour has made it possible to highlight the emission of pheromones secreted by the sebaceous glands of the intermammary groove in lactating sows. We were thus able to synthesise a structural analogue of this pheromone and to study its effects in controlled situations (laboratory, research station), but also on the farm.

In the presence of this secretion (Pig Appeasing Pheromone), fighting is reduced, plasma cortisol levels are lowered, heart rate is stabilised during transport, and growth is optimal and uniform. The release of this pheromone, by means of an aqueous gel matrix, allows for a continuous and simplified administration. A truly ecological, sustainable and safe solution.

What is SecurePig® ?

High-quality, easy-to-use gel diffuser or Pour-On flash solution, SecurePig® allows the animal to better control its reactions when faced with a stressful situation or environment (transport, socialisation, new environment, handling, care, weaning, etc....). By avoiding the energy expenditure associated with stress, limiting the risk of fighting and allowing the immune system to work optimally, we optimise the pigs performance while guaranteeing their health.

A solution supported by several publications in the world's leading scientific journals.



Benefits of SecurePig®

AT THE PREGNANT SOW

- Reduction of aggression
- Facilitation and optimisation of maternal behaviour and breastfeeding
- Promotes positive social behaviour

IN PIGLETS

- Reduction of agitation due to allotment
- Reduction of mortality
- Optimisation of the ADG and feed conversion ratio
- Optimisation of growth rate
- Promotes positive social behaviour

IN PIGS AT FATTENING

- Reduced aggression and duration of fights (reduced caudophagy)
- Reduction of mortality
- Optimisation of the ADG
- Increase in the batch homogeneity
- Optimisation of growth rate
- Promotes positive social behaviour



SecurePig®

Post-weaning growth



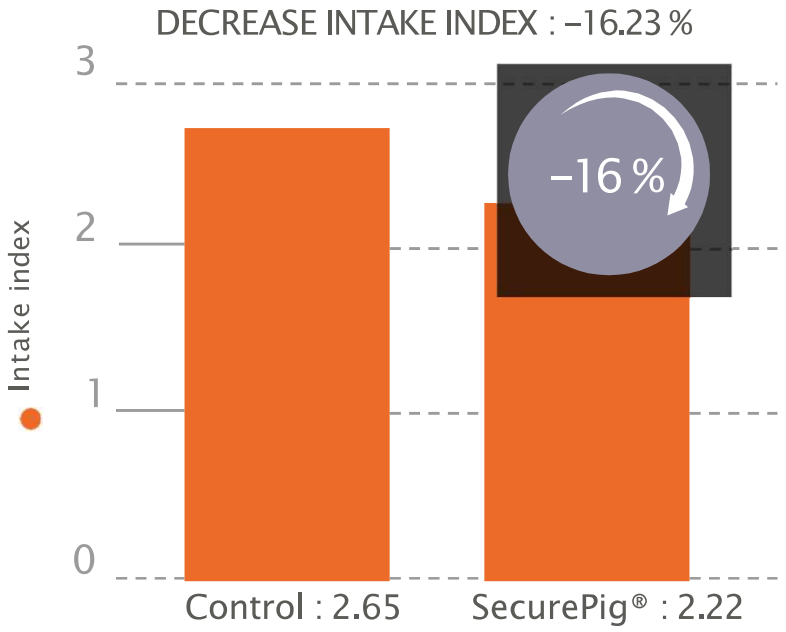
Parameters studied
Average Daily Gain and Intake Index

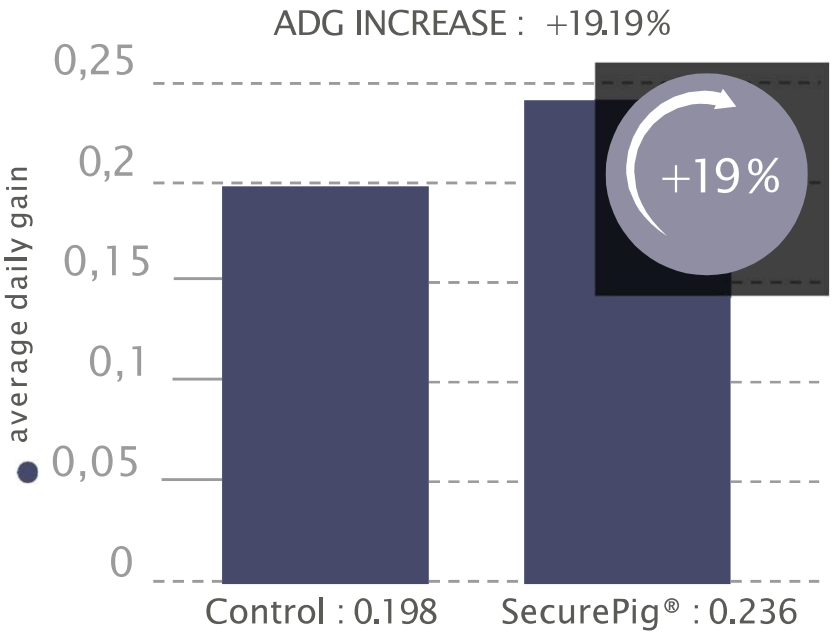
Duration :

First 28 days post-weaning

Source :

MCGLONE J., ANDERSON D., 2002. Synthetic maternal pheromone stimulates feeding behavior and weight gain in weaned pigs. Journal of Animal Science, 80:3179–3183.





SecurePig®

Post-weaning allotment



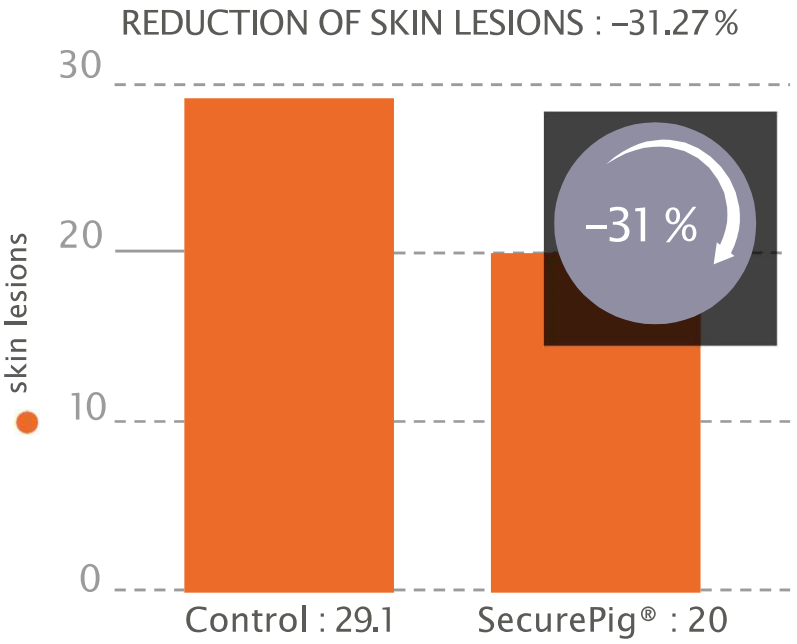
Parameters studied
Number of fights and number of skin lesions

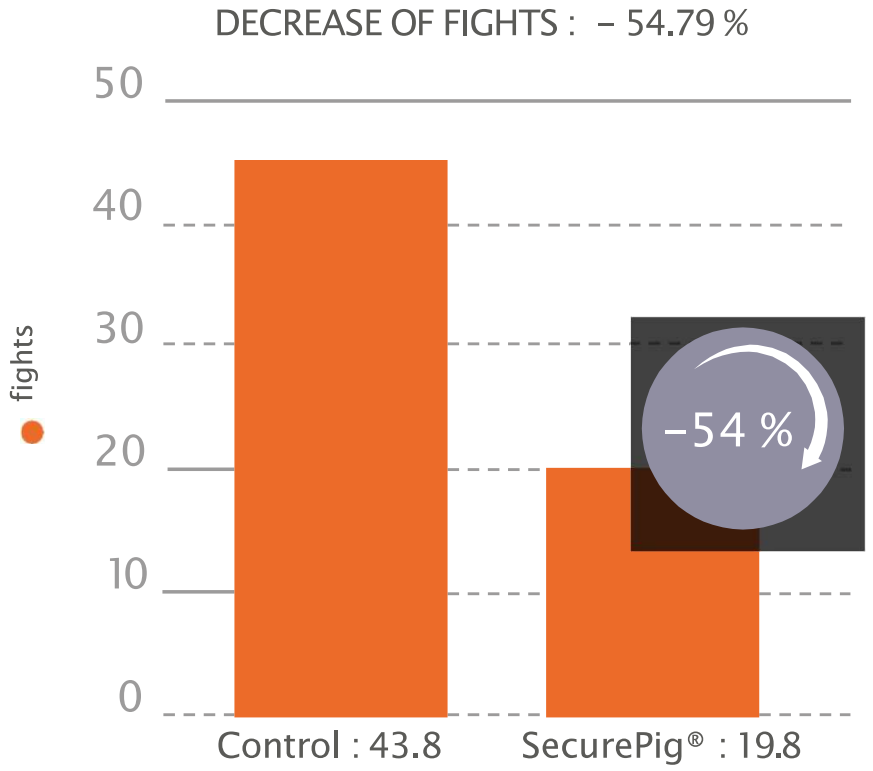
Duration :

1 hour of observation, after 24 hours of allotment

Source :

GUY JH. et al., 2009. Reducing post-mixing aggression and skin lesions in weaned pigs by application of a synthetic maternal pheromone. Animal Welfare, 18:249–255.

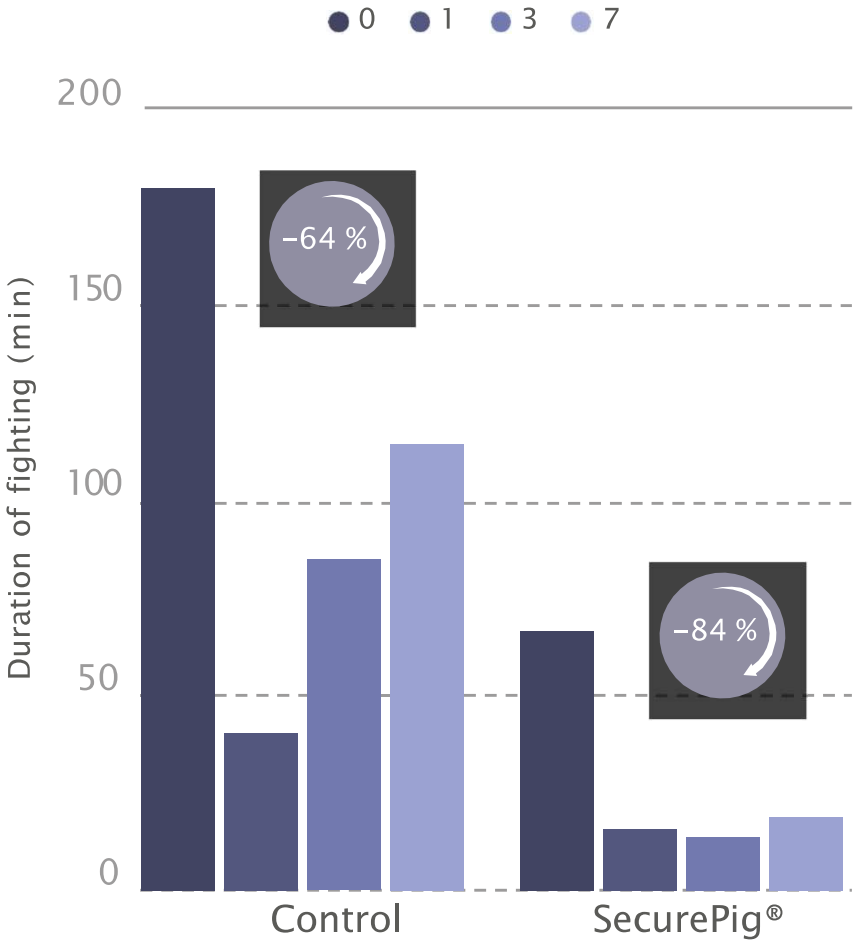




SecurePig®

Pregnant sow allotment





Parameters studied
Duration of attacks

Duration :

From allotment to 7 days after allotment

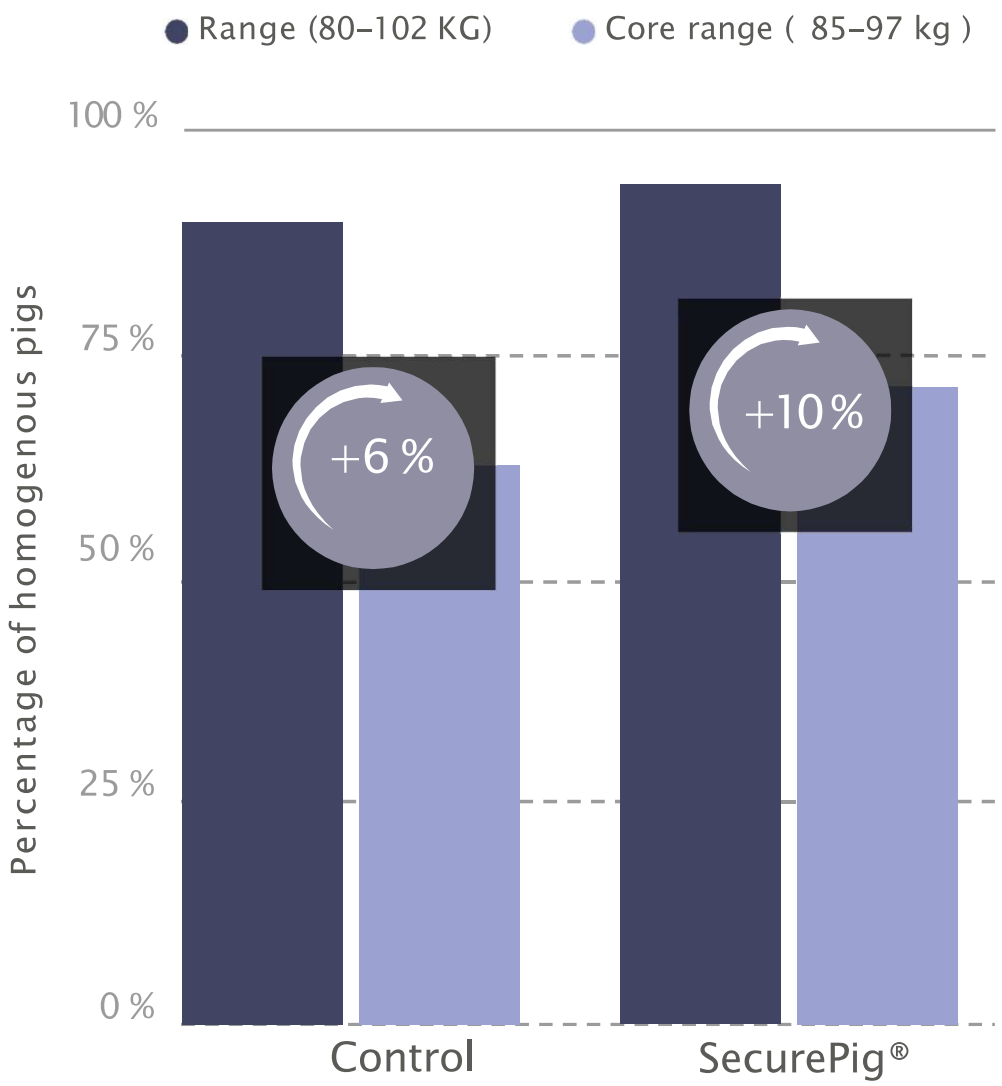
Source :

PLUSH K.J. et al., 2013. Pig appeasing phero-mones reduce duration of aggression but not cortisol levels in newly-mixed gestating sows. Manipulating Pig Production XIV.

	DURATION OF FIGHTING (MIN)			
DAYS AFTER ALLOTMENT	0	1	3	7
Control	179.9	39.6	84.2	114
SecurePig®	65.5	14.9	13.2	17.9
DECREASE	-63.59 %	-62.37 %	-84.32 %	-84.30 %

SecurePig®

Batch homogeneity





Parameters studied
Variation of weight in range and core range

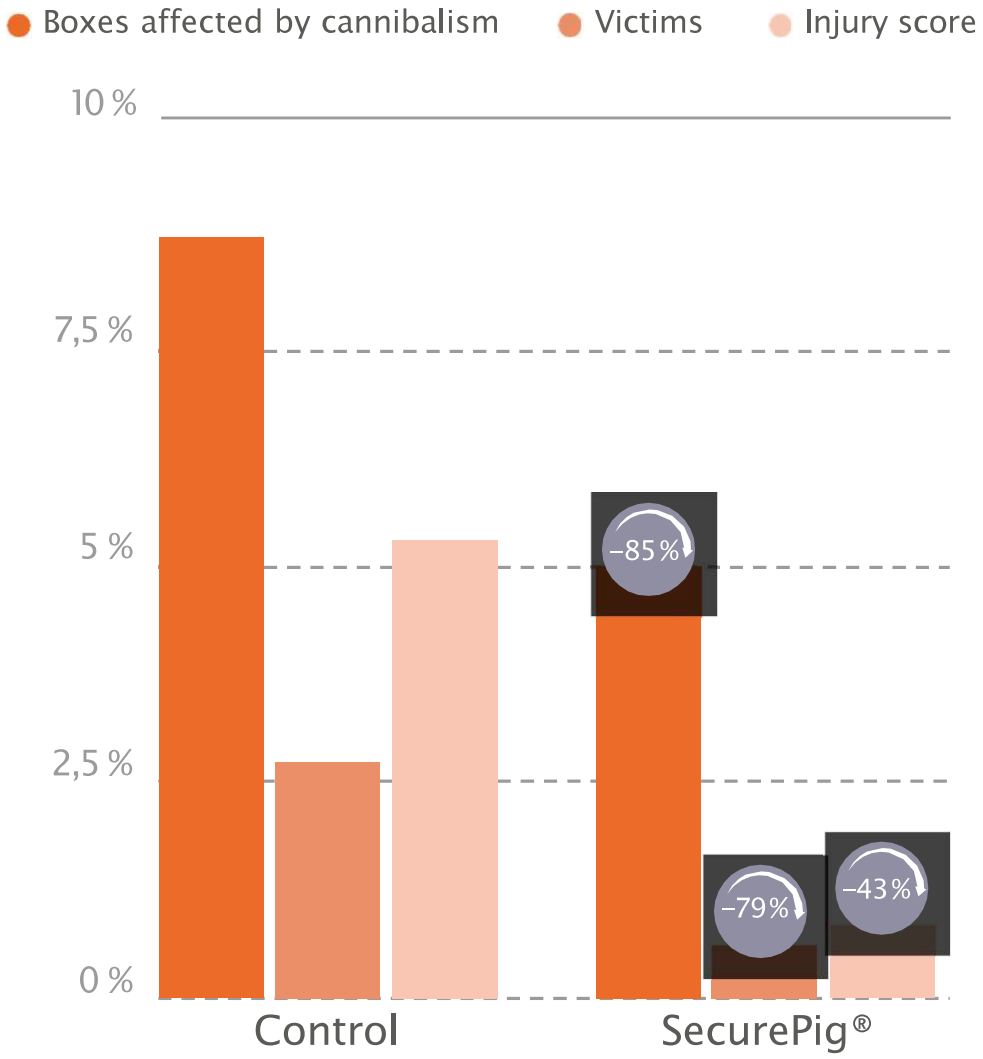
Source :
Result of field study

HOMOGENEITY

	80–102 kg	85–97 kg
Control	88.52 %	65.01 %
SecurePig®	93.68 %	71.75 %
INCREASE	+5.83 %	+10.36 %

SecurePig®

Reduction of tail-biting





Parameters studied

- **2 multiplication farms (235 sows in the first farm and 370 sows in the second) on 2 consecutive bands in each farm**
- **Treatment: SecurePig® from the 11th week of age to the 21st week of age**

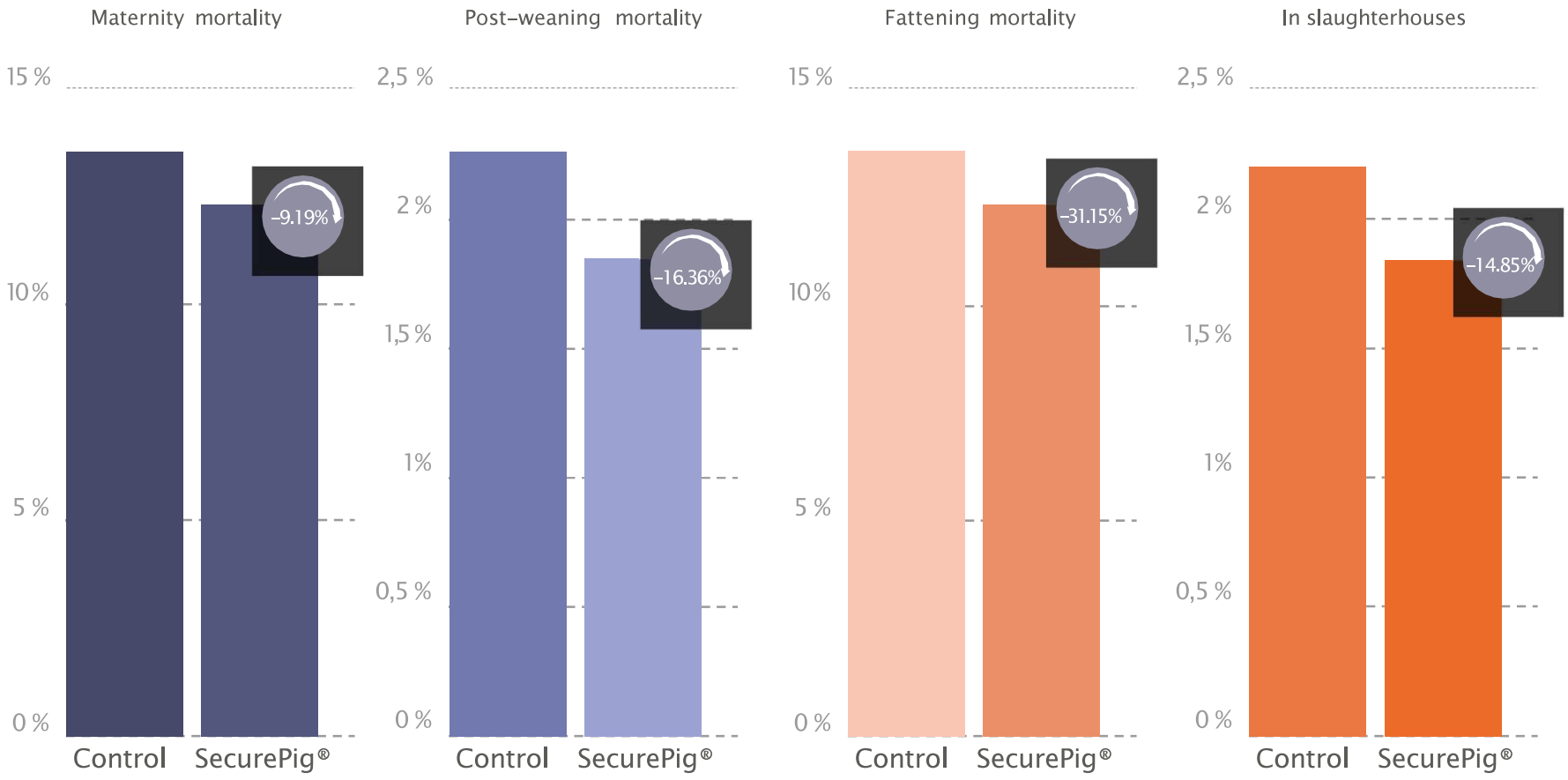
SecurePig®

Reduction of mortality



In maternity
In post-weaning
At fattening
In slaughterhouse (before slaughter)

***Results of field studies**




30 °C
10 °C
1 Litre
SecurePig®
FLASH
SIGNS
SecurePig®
FLASH

SecurePig® FLASH
In practice

Maternal appeasing pheromone
- Pour-on application -

SecurePig® FLASH is indicated whenever a quick action to prevent short-term stress is needed (one-off events)



Spray 5 ml of solution, 4-6 hours before the stressful event

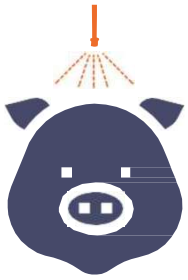


1SecurePig FLASH® bottle (1L.)

= 200 applications



Ready-to-Use, SecurePig FLASH® is applied with the first press of the 5ml automatic dispenser



Spray 5 ml of the product directly onto the animal's withers
(= 1press on the dosing spray)

Duration of effectiveness

(persistence):

5 days after application

100% SAFE

Eco Friendly

Scientifically Proven

NO:

side effects

residue

Scientific publications

Temple D., Barthélémy H., Mainau E., Cozzi A., Amat M., Canozzi M.E., Pageat P., Manteca X. Preliminary findings on the effect of the pig appeasing pheromone in a slow releasing block on the welfare of pigs at weaning. Porc. Health Manag. 2016;2:1-5.

Guiraudie G, Pageat P, Cain AH, Madec I, Nagnan-Le Meillour P. Functional characterization of olfactory binding proteins for appeasing compounds and molecular cloning in the vomeronasal organ of pre-pubertal pigs. Chem Senses. (2003) 28:609-19.

Yonezawa T, Koori M, Kikusui T, Mori Y. Appeasing Pheromone Inhibits Cortisol Augmentation and Agonistic Behaviors During Social Stress in Adult Miniature Pigs. Zoolog Sci. nov 2009;26(11):739-44.

Guy J, Burns S, Barker J, Edwards S. Reducing post-mixing aggression and skin lesions in weaned pigs by application of a synthetic maternal pheromone. Anim Welf. 1 août 2009;18(3):249-55.

Meier C, Hollwich P, Mertens P, Unshelm J, Erhard M. porcine pheromones : a novel method to improve the well being of fattening pigs during transportation to the slaughterhouse ?. XI International Congress ISAH.

Terlouw C, Cassar-Malek I, Picard B, Bourguet C, Deiss V, Arnould C, et al. Stress en élevage et à l'abattage: impacts sur les qualités des viandes. 2015;15.

Plush, K., Hughes,P., Herde, P., Van Wettere, W., 2016. A synthetic olfactory agonist reduces aggression when sows are mixed into small groups. Appl. Anim. Behav. Sci. 185, 45-51

McGlone J.J., Anderson D.L. Synthetic maternal pheromone stimulates feeding behavior and weight gain in weaned pigs. J. Anim. Sci. 2002;80:3179-3183.

MADEC I., GUIRAUDIE, G., PAGEAT, P., 2002. The pig appeasing pheromone (PAP): effects on behavior and performances. 17 th Congress of the International Pig Veterinary Society Conference

McGlone JJ (1984) Olfactory cues and pig agonistic behaviour: evidence for a submissive pheromone. Physiology & Behavior 34, 195-198

Pageat P, Madec I (2002) Interest in using pheromones in breeding farms. Comptes rendus de l'Academie d'Agriculture de France 88(4), 47-51.

Lewis, C.R.G.; Krebs, N.; Hulbert, L.E.; McGlone, J.J. Use of a putative maternal pheromone during transport and the effect of trailer temperatures on pig losses and welfare. Anim. Prod. Sci. 2010, 50, 916-924.

Guiraudie-Capraz G., Slomianny M.C., Pageat P., Malosse C., Cain A.C., Orgeur P., Nagnan-Le Meillour P. Biochemical and chemical supports for a transnatal olfactory continuity through sow maternal fluids. Chem. Senses. 2005;30:241-251.

Pageat P., Teissier Y. Usefulness of a Porcine Pheromone Analogue in the Reduction of Aggression between Weaners on Penning: Behavioural study; Proceedings of the 15th International Pig Veterinary Society Congress; Birmingham, UK. 5-9 July 1998; p. 413.





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