DEFENCE

- What is immunomodulation?
- Immunomodulation is the existing balance in the dynamics of the immune response that allows the adaptation of the existing processes (chemical and cellular) to optimize the response to the antigen.
- Immunomodulators are products of the organism, bacteria, drugs or natural substances, able to stimulate the immune responses.





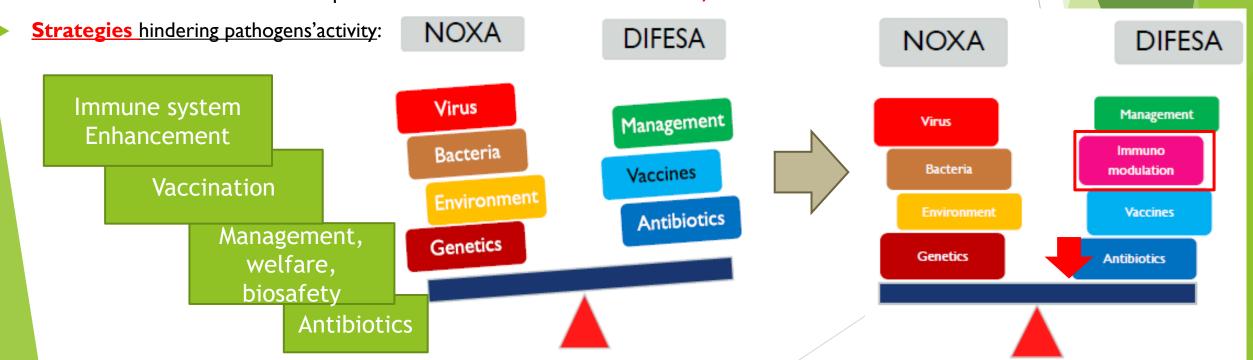
DEFENCE mainly stimulates **cellular immunity** which

is a response

from the immune system that does not involve antibodies but entails:

the activation of <u>macrophages</u>, <u>natural killer cells</u> and <u>T</u> <u>lymphocytes</u>,

the production of <u>specific cytotoxic antigens</u> and <u>the</u> <u>release of various cytokines</u>



What is **DEFENCE?**

Product created to increase the efficiency of the animals' immune system in order to prevent and overcome the most critical phases (es PRRSV viraemia) in the best possible way giving the breeder great satisfaction. The main officinal plant extracts, appropriately submitted to specific technological processes, used in DEFENCE are:



When do you use **DEFENCE**?

20 DAYS TREATMENT
FROM WEANING
(Seroconversion)

20 DAYS TREATMENT
IN ALL ANIMALS
(Support immunity)

DURING LACTATION
(Support sow immunity, piglet brood immunity ans sow fertility)



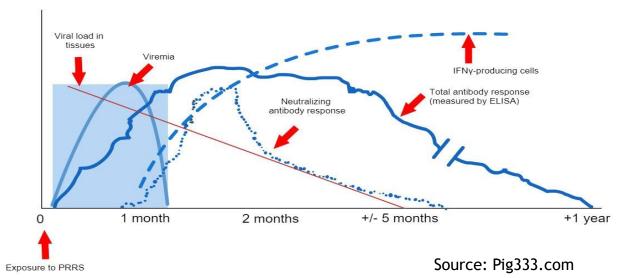
Field Trial

Trial time:

From December 2017 to August 2018. 4700 sows farm. Defence in liquid form. Product administration: 20 days. 2 treatments: the first on May 2018 and successively in August 2018 during the gestation phase. All animals were treated. 2 groups of 6 gestating sows in contiguous boxes weremsampled. Blood sampling on sows at day 0 and day 20 after second administration on sows. Analysis of processing fluids of piglets after castration.

Performed tests:

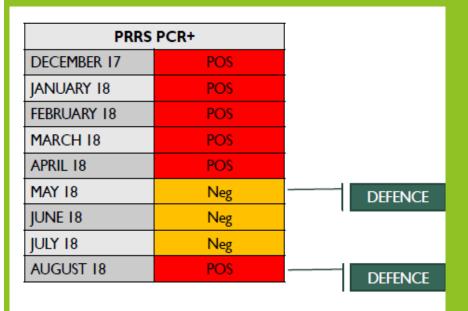
- PRRSV PCR
- Serum lysozyme
- HC Hemolytic complement
- Serum bactericidal activity (SBA)
- Oxidative stress (ROM)
- OXY –Plasma capability to oppose oxidation

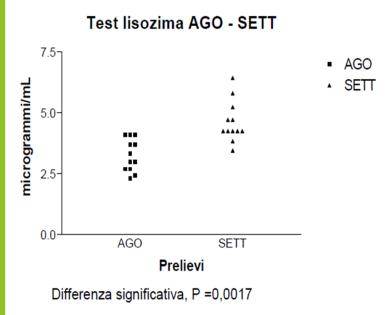


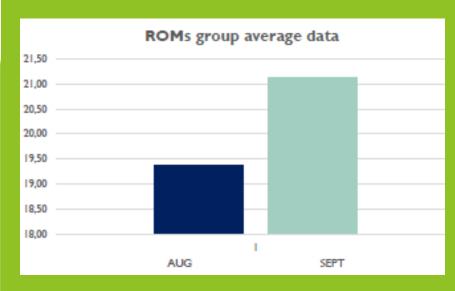
Both the analysis and related statistical processing have been carried out by **IZSLER** -**Laboratory of Clinical Biochemistry**

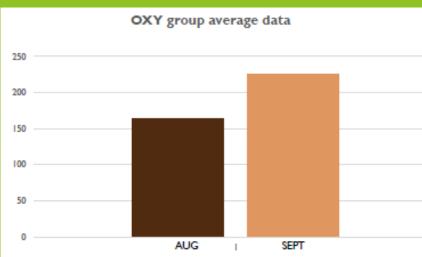


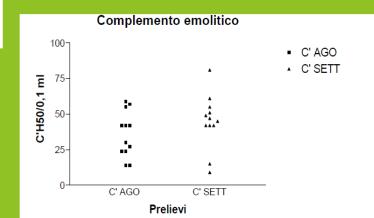
Field trial results



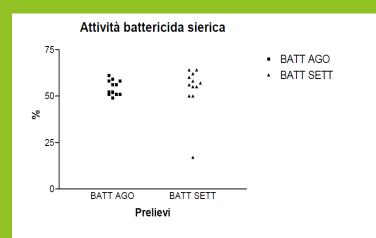








La differenza non è significativa a causa di 2 soggetti "non-responder". P 0.22.



Le differenze non sono significative (P 0,9) . C'è un soggetto "non-responder".

THANK YOU FOR YOU ATTENTION!