







# Searup

#### **REINFORCES NATURAL DEFENSES**

### **Strengths**

- Supports vaccination programs
- Improves resistance to stress
- Reinforces natural defenses

#### Why?

The immune system is constantly facing aggressions from the environment (vaccination programs, stress, mycotoxins...). Moreover young animals often encounter a lack of immunity. In these conditions, animals become more susceptible to microbial infections, thus reinforcing the need for an efficient immune system.

#### Searup supports immunity

Searup combines the action of immune-modulating Marine Sulfated Polysaccharides (MSP), vitamins and amino acids. Immune-modulating MSP contribute to a better immune response thanks to the activation of specific receptors of the innate immune system. Searup is recommended during stressing periods and in support of vaccination programs.













# Searup Still

### **Directions for use**

- $\bullet$  0,5 to 1 mL / liter of water / day according to the physiological stage, or for 10 kg of live weight / day
- Use for 3 to 5 days

### Aquaculture

Consult your veterinarian.







Cans of 1 and 5 liters

# Searup



# Impact of Searup on zootechnical and economic performance of broilers

# Y

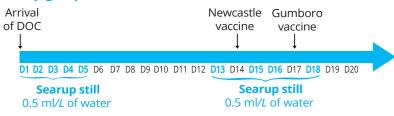
## **Experimental design**

- 4 buildings in total (40 170 broilers, Aviagen Chunky):
  - 2 closed buildings of 7 725 DOC: 1 control, 1 Searup
  - 2 open buildings of 12 360 DOC: 1 control, 1 Searup
- Average slaughter age: 52 days
- Density: 14 DOC / m<sup>2</sup>

#### Control group:

Standard prophylaxis of the farm.

#### Searup group:



All groups had the same feeding management and were antibiotics and coccidiostats free.

#### **Results**

#### **Zootechnical performance**

#### → Average performance in all buildings

Parameters	Control 20 085	<b>Searup</b> 20 085	Variation
Mortality (%)	2.26	1.74	- 23 %
Weight at slaughter (kg)	3.24	3.33	+ 2.8 %
DWG (g/d)	61.5	63.3	+ 2.9 %
FCR	1.93	1.92	- 0.5 %

#### **Economic performance** (under local conditions at the time of trial)

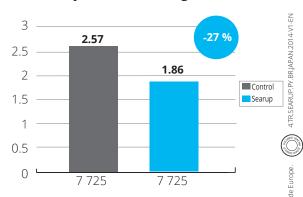
Calculated for <b>20 085 broilers</b>		Control	Searup	Difference
Gross benefits	Sold weight (kg)	63 750	66 150	+ 2 400
	Income (¥)	11 156 250	11 576 250	+ 420 000
Expenses	Feed consumption (kg)	123 000	126 500	+ 3 500
	Feed cost (¥)	7 380 000	7 590 000	+ 210 000
	Searup investment (¥)	0	29 207	+ 29 207
	Net benefits (¥)	3 776 250	3 957 043	+ 180 793
			ROI*	6:1

<sup>\*</sup>Return On Investment (ROI) does not include veterinary costs (vaccines, disinfectants...). Economic parameters: 1€ = 140 ¥, Feed price: 60 ¥/kg, Chicken price: 175 ¥/kg

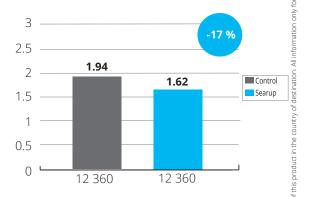
Field trial - Japan, 2014



#### → Mortality in closed buildings (%)



#### → Mortality in open buildings (%)



#### Conclusion

Thanks to the immunomodulating activity of MSP (Marine Sulphated Polysaccharide) in Searup, natural defenses are strengthened. Consequently, survival rate and growth are improved, so is the economic performance: + 1 290€ of net benefits in Searup group equivalent to a ROI of 6:1.

**Searup** strengthens natural defenses for improved performance.

# Searup



# Effect of Searup on pullets' immune system and zootechnical performance



#### Field trial - France. 2015

### **Experimental design**

The trial took place in a commercial pullets farm (Hy-Line genetic), from the entrance of the chicks in the buildings to their transfer in the laying building (week 16).

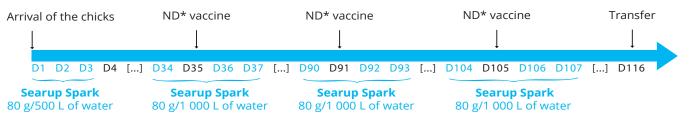
#### **Control group**

2 buildings with 20 400 pullets each, using the standard prophylaxis of the farm.

#### Searup group

1 building with 18 500 pullets, using the standard prophylaxis of the farm together with Searup.





\*ND = Newcastle Disease

#### **Measurements:**

Zootechnical performance were recorded. Moreover blood samples were collected the week before the first ND vaccine (D35) and between each ND vaccine (D91 and D105). A last blood sample was collected after the transfer in the laying building (30 weeks old).

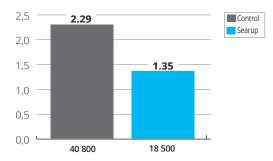
#### Results

#### Zootechnical performance

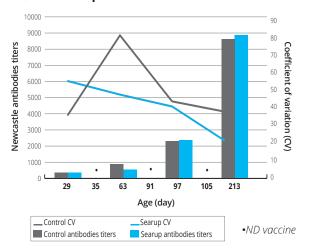
	Control	Searup	Variation
Mortality (%)	2.29	1.35	- 41 %
Feed consumption (kg/pullet from arrival till transfer)	5.66	5.14	-9%

Searup pullets group had more homogeneous ND antibodies than control (lower coefficients of variation). This reflects a better response to vaccination from the Searup pullets.

#### → Mortality (%)



#### Immune performance



#### **Conclusion**

As a consequence of the immune modulating properties of its MSP (Marine Sulfated Polysaccharides), the use of Searup at start and around vaccination allowed to improve response to vaccination and to decrease mortality of the pullets. Pullets perform better and are better protected in the laying period.

### **Searup** improves pullets' immune status