

# **Ultrasonic nebulizer SONOVAC 2006®**

**Faculty of Veterinary Medicine University of Zagreb  
Department of Poultry Diseases with Clinic  
Hrvoje Mazija  
Heinzlova 55  
10 000 Zagreb  
CROATIA**

# ULTRASONIC NEBULIZER SONOVAC 2006®



**PARTICLES 2-5 MICROMETERS PRODUCED  
AND BLOWN INTO THE CHAMBER (SMOKE)**



**MAZIJA, H., S. ČAJAVEC, E. PRUKNER-RADOVČIĆ, N. ERGOTIĆ, I. CIGLAR GROZDANIĆ, Ž. GOTTSTEIN, A. KOKIĆ, W.L. RAGLAND (2009):**

**Immunogenicity and safety of La Sota strain of Newcastle disease virus administered to newly hatched chicks by nebulization.**

***Acta Veterinaria (Brno). 78, 137-144.***

**MAZIJA, H., S. ČAJAVEC, N. ERGOTIĆ, I. CIGLAR GROZDANIĆ, Ž. GOTTSTEIN, W. L. RAGLAND (2009):**

**Immunogenicity and Safety of Queensland V4 and Ulster 2C strains of Newcastle Disease Virus Given to Maternally Immune, Newly Hatched Chickens by Nebulisation.**

***Avian Diseses, in press.***

# VACCINATION AGAINST NEWCASTLE DISEASE

## AVERAGE ELISA TITRES OF DIFFERENT ND STRAINS

Treatment (exposure time - 60 sec)	Days after vaccination							
	0	7	14	21	28	35	42	49
Ulster 2C	3151 <sup>A,a</sup> ±2033 (20)	5693 <sup>A,a</sup> ±342 (2)	585 <sup>A,b</sup> ±305 (19)	230 <sup>A,c</sup> ±260 (19)	1151 <sup>A,b</sup> ±1408 (20)	3999 <sup>A,a</sup> ±5197 (20)	882 <sup>A,b</sup> ±1549 (20)	1499 <sup>A,b</sup> ±1607 (15)
La Sota	3151 <sup>A,a</sup> ±2033 (20)	3896 <sup>A,a</sup> ±3336 (10)	836 <sup>A,b</sup> ±523 (20)	307 <sup>A,c</sup> ±263 (20)	1480 <sup>A,b</sup> ±1442 (20)	3328 <sup>A,a</sup> ±2376 (20)	1857 <sup>B,b</sup> ±1485 (17)	1545 <sup>A,b</sup> ±1276 (15)
QV4	3151 <sup>A,a</sup> ±2033 (20)	3608 <sup>A,a</sup> ±2037 (10)	1497 <sup>B,b</sup> ±1497 (19)	1183 <sup>B,b</sup> ±1529 (20)	1926 <sup>A,a</sup> ±1839 (19)	3291 <sup>A,a</sup> ±3199 (20)	1951 <sup>B,a</sup> ±1893 (19)	2353 <sup>A,a</sup> ±1679 (14)
Non- vaccinated control	3151 <sup>A,a</sup> ±2033 (20)	2604 <sup>A,a</sup> ±1433 (10)	615 <sup>A,b</sup> ±405 (17)	76 <sup>D,c</sup> ±107 (14)	2 <sup>C,d</sup> ±9 (15)	3 <sup>C,d</sup> ±9 (15)	-	-

# VACCINATION AGAINST NEWCASTLE DISEASE

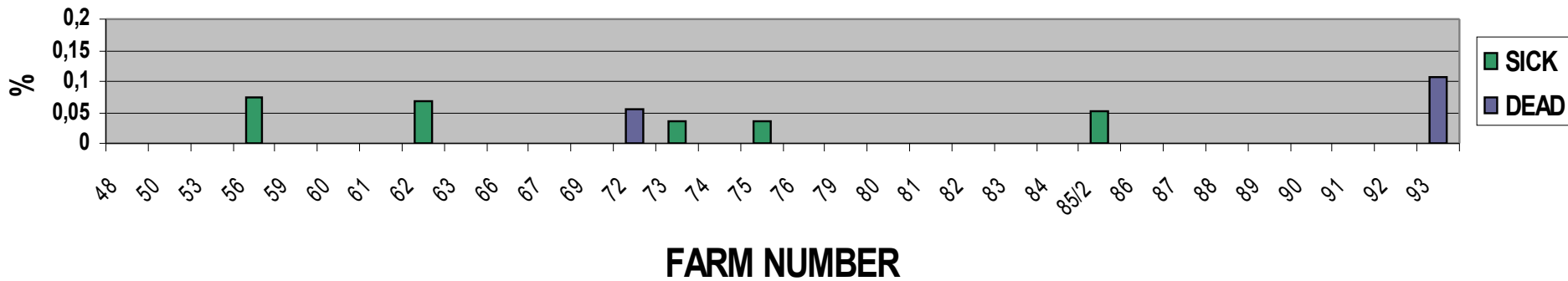
## SURVIVAL AFTER CHALLENGE WITH HERTS 33

Treatment	Protection against challenge <sup>1</sup>							Cumulative mortality (dead/total)
	Day of challenge							
	7	14	21	28	35	42	49	
Ulster 2C	15/15 <sup>A</sup> ,a	14/14 <sup>A</sup> ,a	14/15 <sup>A</sup> ,a,b	10/15 <sup>A</sup> ,a,b	14/14 <sup>A</sup> ,a	13/15 <sup>A</sup> ,B,a,b	11/15 <sup>A</sup> ,B,a,b	12/103 <sup>A</sup>
La Sota	15/15 <sup>A</sup> ,a	14/15 <sup>A</sup> ,a	15/15 <sup>A</sup> ,a	15/15 <sup>B</sup> ,a	15/15 <sup>A</sup> ,a	15/15 <sup>A</sup> ,a	15/15 <sup>A</sup> ,a	1/105 <sup>B</sup>
QV4	14/15 <sup>A</sup> ,a	12/13 <sup>A</sup> ,a	14/15 <sup>A</sup> ,a	13/15 <sup>A</sup> ,B,a	13/15 <sup>A</sup> ,a	14/15 <sup>A</sup> ,B,a	14/15 <sup>A</sup> ,B,a	9/103 <sup>A</sup>
Unvaccinated control	12/15 <sup>A</sup> ,a	14/15 <sup>A</sup> ,a	10/15 <sup>B</sup> ,C,a	7/15 <sup>A,C</sup> ,a,b	3/15 <sup>C,b</sup>	2/10 <sup>C,b</sup>	2/15 <sup>C,b</sup>	89/190 <sup>D</sup>

# VACCINATION AGAINST MAREK'S DISEASE IN LAYERS

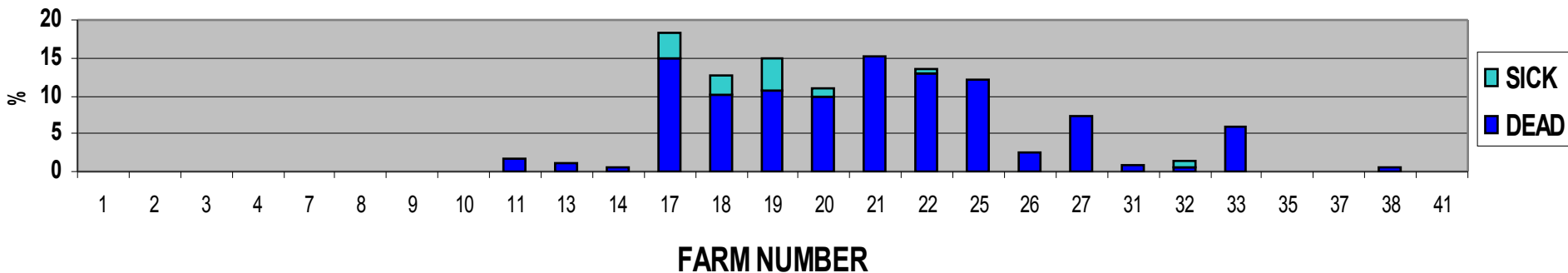
## VACCINATION PERFORMED ON 195403 CHICKENS ON 32 FARMS

### MORTALITY - CVI 988 Rispens/Rismavac (IM) + HVT FC126 (NEBULIZATION)



## VACCINATION PERFORMED ON 152910 CHICKENS ON 27 FARMS

### MORTALITY - CVI 988 Rispens (IM)



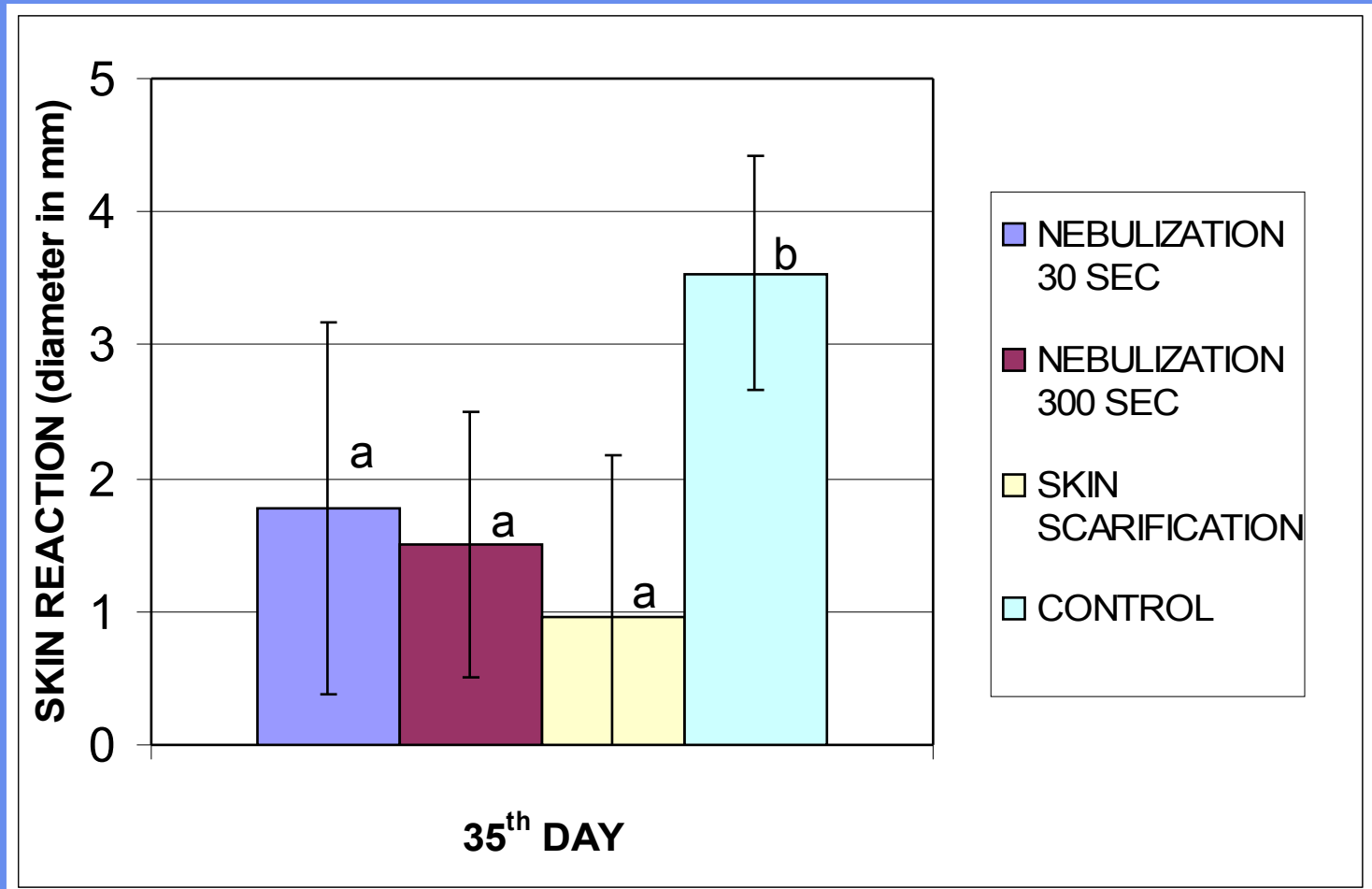
**GOTTSTEIN, Ž., H. MAZIJA, I. C. ZUCKERMANN-ŠOŠTARIĆ (2006):**  
Isolation and identification of fowl Poxvirus using PCR  
applied as a vaccine by nebulization to newly-hatched chickens.  
*World's Poultry Science Journal*, 62 (Suppl.), 135.

**GOTTSTEIN Ž., I. CIGLAR GROZDANIĆ, D. HORVATEK, E. PRUKNER-  
RADOVČIĆ, S. ČAJAVEC , H. MAZIJA (2004):**  
Safety and Immunogenicity of Pigeon Poxvirus Vaccine Applied to  
Newly Hatched Chickens by Mean of Nebulization. Book of Abstracts  
XXII World's Poultry Congress, Istanbul, Turkey, 793.

**GOTTSTEIN, Ž. I. CIGLAR GROZDANIĆ, Ž. CVETIĆ, H. MAZIJA (2007):**  
Detection of HVT FC 126 in lung tissue of chickens vaccinated  
by means of nebulization against Marek' s disease. *15th World  
Veterinary Poultry Congress,*  
Book of Abstracts Beijing, China,. 442

# VACCINATION AGAINST FOWL POX

## CHALLENGE AFTER VACCINATION USING PIGEON POXVIRUS



# VACCINATION AGAINST FOWL POX

## CHALLENGE AFTER VACCINATION USING FOWL POXVIRUS

