

**Table S6: Vaccination strategies in pigeons (PPMV-1)**

Vaccine program	Pre-challenge Abs' titer (log-2)	Challenge virus/dpv	Protection %		Virus shedding (log-10)	Reference
			Morbidity	Mortality		
LaSota-live (GII), inactivated PPMV-1 (GVI)	NR	V PPMV-1 (G VI)	-	100%		<i>Hassan, 2005</i>
Inactivated PPMV-1 (G VI)				90%		
Inactivated PPMV-1 (GVI)	5.0	V PPMV-1 (G VI)/ 21dpv	-	100%	-	<i>Amer et al., 2013</i>
Live HB1(GII)	4.5		-	50%	-	
Inactivated ND vaccine (GII)	4.3		-	60%	-	
Bivalent inactivated vaccine (S. Typhimurium and PPMV-1) (GVI) with Montanide ISA 206	8	V PPMV-1 (G VI)/ 21dpv	100%	100%	-	<i>Khedr et al., 2016</i>
Inactivated PPMV-1 aluminum hydroxide gel adjuvanted vaccine (GVI) S/C	9.3	V PPMV-1(G VI)/ 21dpv		100%	C (7dpc): 1.00	<i>Soliman et al., 2019</i>
Inactivated PPMV-1 oil adjuvanted vaccine (GVI) S/C	7.8		+	70%	C (7dpc): 1.78	
Inactivated PPMV-1 aluminum hydroxide gel adjuvanted vaccine (GVI)/ IM	5.6			100%	C (7dpc): 2.08	
Inactivated PPMV-1 vaccine (GVI)/ once	5.1 (14dpv)	-				<i>Abotaleb et al., 2019</i>
Inactivated PPMV-1 vaccine (GVI)/ twice	6 (14dpv)					

V PPMV-1: velogenic pigeon paramyxovirus-1

G: genotype

dpv: days post vaccination

C: cloacal shedding

## **References:**

- Abotaleb, M.M., Maher, A., Fathy, M., Darwish, D.M., Elsafty, M. M., Abdelbaky, M. H., et al. (2019). Quantity of HI Antibodies in Sera of SPF Chickens Inoculated with Inactivated Commercial Pigeon Paramyxovirus, Type1 Vaccine in Comparison with Vaccinated Pigeon. *Alex. J. Vet. Sci.* 63, 98-102.
- Amer, M.I.S., El-Bagoury, G.F., and Khodeir, M.H. (2013). Evaluation of the immune response of pigeons to Newcastle disease and pigeon paramyxo virus vaccines. *BVMJ.* 24, 148-156.
- Hassan, E.A. (2005): Studies on protection of pigeon squabs against Infection with pigeon paramyxovirus-1 using different strains of Newcastle disease vaccine in the period before the age of vaccination With PMV-1vaccine, *Egypt. J. Agric. Res.* 83.
- Khedr, A.A., Abdel Latef, A.A., Sayed, M.L., Abdrabo, M.A., Nagy, N., Radwan, A.A., et al. (2016). Efficacy of an Experimental Combined Inactivated *Salmonella Typhimurium* and Paramyxovirus Vaccine in Pigeons. *Zag. Vet. J.* 44, 149-155.
- Soliman, Y.A., El-Nagar, E., Abd-wanees, N.A., and El-Safty, M. (2019). Efficacy of Prepared Oil Inactivated Pigeon Paramyxo Vaccine. *AJVS.* 60, 30-40.