

Parameter	Unit	Dog n=60	Cat n=59	Horse n=59	Eq. Foal n=75	Cattle n=61	Sheep n=54	Goat n=62	Alpaca n=45	Rabbit	Cockatiel n=120	Cockatiel Male n=60	Cockatiel Female n=60
RBC – Red Blood Cells	x10 ⁶ /μl	5.6-8.0	7.0-10.5	6.2-10.2	8.2-12.3	4.9-7.2	8.2-12.3	11.5-21.0	9.4-15.5	4.7-7.7	3.45-4.73 ¹		
HGB – Hemoglobin	gm/dl	14-19	10-16	11.2-17.2	11.5-17.1	8.4-12.2	9.0-14.0	8.2-12.4	9.8-15.8	11-16			
HCT – Hematocrit	%	40-55	30-50	30-46	30-46	23-33	25-38	23-36	22-40	30-48	48-65 PCV ¹		
MCV – Mean Cell Volume	fl	65-75	42-53	37-53	33-41	38-53	27-37	15-23	20-28	56-73	122.6-155.8 ¹		
MCH – Mean Corpuscular Hemoglobin	pg	22-26	13-17	14-20	13-15.5	14-18	10-13	5.5-8	8.8-12.4	20-24			
MCHC – Mean Corpuscular Hemoglobin Concentration	gm/dl	33-36	30-33.5	36-39	35-40	36-39	33-38	32.5-38	39.8-47.7	32-37			
RDW – Red Cell Distribution Width	%	11-14	14-18	16-20	18-20	16-20	16-22	21-28	31.4-34.2	11-15			
Reticulocytes	cells/μl	7,000-65,000	7,000-60,000						0-12,000				
WBC – White Blood Cells	cells/μl	6,000-13,000	4,500-14,000	5,000-11,600	5300-14000	5,800-12,600	5,000-14,500	5,000-17,000	6,900-19,100	2,300-10,300	2,670-13,689 ¹	2,245-10,624 ¹	2,704-15,998 ¹
Band Neutrophils	cells/μl	rare	rare	rare	rare	rare	rare	rare		rare	0-137 ¹	0-93 ¹	0-250 ¹
Neutrophils	cells/μl	3,000-10,500	2,000-9,000	2,600-6,800	3,400-11,900	2,300-6,800	1,500-8,600	700-7,600	3,400-10,900	1,000-4,400	388-5,997 ¹	264-4,667 ¹	398-6,408 ¹
Lymphocytes	cells/μl	1,000-4,000	1,000-7,000	1,600-5,800	700-2,900	1,700-5,600	2,000-5,700	2,500-12,000	1,200-5,500	900-8,000	1,308-9,978 ¹	1,243-7,854 ¹	1,288-12,514 ¹
Monocytes	cells/μl	150-1,200	50-600	0-500	50-550	0-900	50-600	70-570	80-800	55-800	0-638 ¹		
Eosinophils	cells/μl	0-1,500	150-1,100	0-200	0-100	0-1,200	0-1,200	0-2,000	140-3,600	0-250	0-758 ¹		
Basophils	cells/μl	0-50	0-200	0-100	0-100	0-300	0-150	0-250	0-300	0-700	0-469 ¹	0-403 ¹	23-649 ¹
Platelets	x10 ³ /μl	150-400	180-500	100-225	134-310	233-690	260-1,000	340-900	291-643	126-785			
MPV – Mean Platelet Volume	fl	7-13	9-18	5.4-9.3	4.2-8.1	4.5-7.6	3.6-6.5	3.7-7.1	4.2-6.5	5.2-9.3			
Plasma Proteins	gm/dl	6.0-8.0	6.8-8.3	5.8-8.7	4.4-7.0	6.5-8.5	6.0-7.5	6.0-7.5	5.3-7.0	6.0-9.0	3.3-9.4 ¹	3.1-7.0 ¹	3.5-9.7 ¹
Fibrinogen	mg/dl			100-400	100-300	300-700	100-500	100-400	100-300	0-400	100-400 ¹		
Protein:Fibrinogen											9.3-94.2 ¹		

Foal reference values were established using animals < 24 hours old. Cats were FeLV negative. Cattle are adult dairy cows at mid-lactation and tested BLV negative. Alpaca age range 6mths-7yrs/male & female. Rabbit ranges established 2013; rabbits >6 months.

1. Monopoli, Marissa Rae, et al. "Hematologic reference intervals and comparison of Natt-Herrick Technique and smear-based Leukocyte Estimation in Cockatiels (nymphicus hollandicus)." *Journal of Avian Medicine and Surgery*, vol. 36, no. 3, 25 Nov. 2022, <https://doi.org/10.1647/21-00039>. Range added to VMACS on 8.14.2024