

# Blood sampling boars

Cate E. Dewey, DVM, MSc, PhD; Susy Carman, DVM, PhD

We have Dr Darwin Reicks to thank for revolutionizing the way we obtain blood samples from boars in Ontario. Last year, he taught us to collect from the ear vein while the boars were ejaculating,<sup>1</sup> using the method published in this issue of the *Journal of Swine Health and Production*.<sup>2</sup>

We wanted to follow his lead, but needed a sample of sufficient size for both a polymerase chain reaction test and a PRRS

ELISA test. Instead of swabs, the 500- $\mu$ L serum collection tubes produced by Sarstedt (Microvette 500 with serum clotting activator, Catalogue #20.1343.100; Sarstedt Inc, Montreal, Quebec, Canada) were perfect for our use. They provided sufficient serum for the two tests and were easy to use in the field. Our methods are described and illustrated in Figures 1 through 6. At the laboratory, centrifuge the vial in a microcentrifuge to harvest 250 to 500  $\mu$ L of serum.

## References

- \*1. Reicks DL. An overview of blood collection strategies for boar studs. *Iowa State University 13<sup>th</sup> Annual Swine Disease Conference for Swine Practitioners*. Ames, Iowa; 2005.
- 2. Reicks DL, Muñoz-Zanzi C, Rossow K. Sampling of adult boars during early infection with porcine reproductive and respiratory syndrome virus by polymerase chain reaction using a new blood collection technique (blood-swab method). *J Swine Health Prod*. 2006;14:258-264.

\*Non-refereed reference



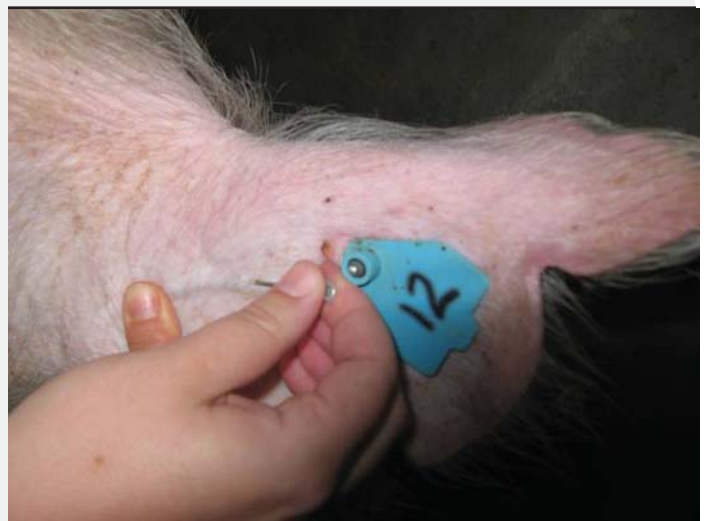
**Figure 1:** Label the 500- $\mu$ L serum collection vial with a pre-glued paper label.



**Figure 2:** Wait until the boar begins to ejaculate.



**Figure 3:** Hold off the ear vein until it becomes obvious.



**Figure 4:** Puncture the vein with a 20-gauge needle.

# CONVERSION TABLES

## Weights and measures conversions

Common (US)	Metric	To convert	Multiply by
1 oz	28.35 g	oz to g	28
1 lb (16 oz)	453.59 g	lb to kg	0.45
2.2 lb	1 kg	kg to lb	2.2
1 in	2.54 cm	in to cm	2.54
0.39 in	1 cm	cm to in	0.39
1 ft (12 in)	0.31 m	ft to m	0.3
3.28 ft	1 m	m to ft	3.28
1 mi	1.6 km	mi to km	1.6
0.62 mi	1 km	km to mi	0.6
1 sq in	6.5 cm <sup>2</sup>	sq in to cm <sup>2</sup>	6.5
0.15 sq in	1 cm <sup>2</sup>	cm <sup>2</sup> to sq in	0.15
1 sq ft	0.09 m <sup>2</sup>	sq ft to m <sup>2</sup>	0.09
11.11 sq ft	1 m <sup>2</sup>	m <sup>2</sup> to sq ft	11
1 cu ft	0.03 m <sup>3</sup>	cu ft to m <sup>3</sup>	0.03
35.32 cu ft	1 m <sup>3</sup>	m <sup>3</sup> to cu ft	35
1 c (cup)	0.24 L	c to L	0.24
4.1667 c	1 L	L to c	4.2
1 gal (128 fl oz)	3.8 L	gal to L	3.8
0.264 gal	1 L	L to gal	0.26
1 qt (32 fl oz)	946.36 mL	qt to L	0.95
33.8138 oz	1 L	L to qt	1.1

## Temperature equivalents

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 9/5) + 32$$

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$$

$^{\circ}\text{C}$	$^{\circ}\text{F}$
0	32
10	50
15.5	60
16	61
18.3	65
21.1	70
23.8	75
26.6	80
28	82
29.4	85
32.2	90
38.8	102
39.4	103
40.0	104
40.5	105
41.1	106
100	212

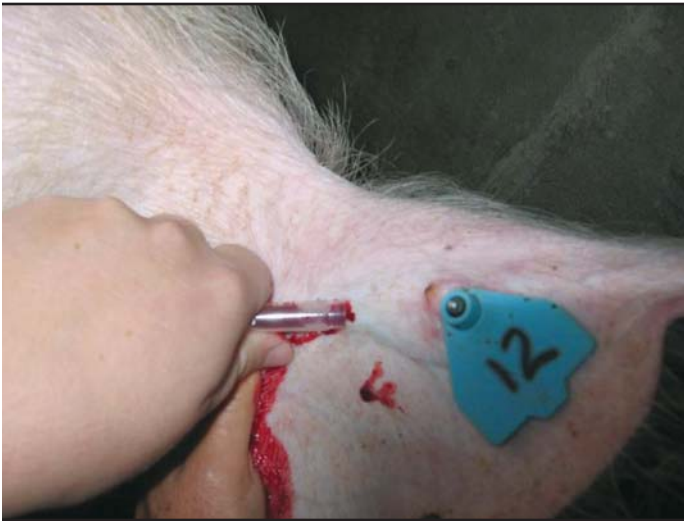
## Conversion chart, kg to lb

Pig size	Kg	Lb
Birth	1.5 - 2.0	3.3 - 4.4
Weaning	3.5	7.7
	5	11
	10	22
Nursery	15	33
	20	44
	25	55
	30	66
Grower	45	99
	50	110
	60	132
Finisher	90	198
	100	220
	105	231
	110	242
	115	253
Sow	135	300
	300	661
Boar	360	800

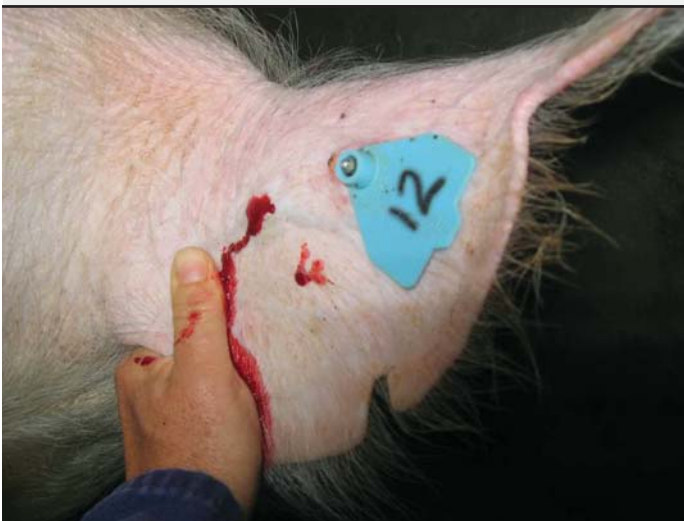
1 tonne = 1000 kg

1 ppm = 0.0001% = 1 mg/kg = 1 g/tonne

1 ppm = 1 mg/L



**Figure 5:** Take the top off the serum collection vial and collect blood, either by letting the blood drip into the vial or by scooping the blood off the ear. Fill the vial past the white line, all the way to the rim.



**Figure 6:** There will be sufficient blood to fill a second vial if required. After samples have been collected, put pressure on the ear to reduce the chance of a hematoma forming.

CED: Department of Population Medicine, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada.

SC: Animal Health Laboratory, University of Guelph, Guelph, Ontario, Canada.

**Corresponding author:** Dr Cate E. Dewey, Department of Population Medicine, Ontario Veterinary College, University of Guelph, Guelph, ON, Canada N1G 2W1; Tel: 519-824-4120, Ext 54070; E-mail: [cdewey@uoguelph.ca](mailto:cdewey@uoguelph.ca).

This article is available online at <http://www.aasv.org/shap.html>.

Dewey CE, Carman S. Blood sampling boars. *J Swine Health Prod.* 2006;14(5):267-268.