

## Pestivirus (BVDV) Prevalence on Northern Territory Cattle Properties

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The awareness of Bovine Viral Diarrhoea Disease Virus (BVDV – also known as pestivirus) and its potential impact on the profitability of cattle enterprises in northern Australia has been increasing in recent years (McGowan 2007), however there is little published information on the actual prevalence of the disease on cattle properties throughout the Northern Territory (NT).

Blood samples were collected from cattle on 13 properties between 2005 and 2007 and tested (BVDV Agid) to see if they had previously been infected with BVDV. On some properties samples were taken from groups of animals in different age groups to try to determine the age at which most animals were becoming infected, while on other properties samples were only taken from one age group (Table 1).

**Table 1. Results of testing for BVDV on commercial cattle properties in the NT**

Property location <sup>†</sup>	Date tested	Age (years)	Number tested	Previously infected with BVDV (%)
Alice Springs <sup>S</sup>	25/4/2007	0.5 (weaners)	20	45
	25/4/2007	1.5	24	96
	25/4/2007	2.5	16	100
	25/4/2007	3.5	15	87
Sturt Plateau	19/7/2007	0.5 (weaners)	14	43
	19/7/2007	2	20	90
	19/7/2007	3	14	100
VRD <sup>N</sup>	12/4/2007	3	10	60
	12/4/2007	4	18	83
VRD <sup>S</sup>	16/5/2007	0.5 (weaners)	15	0
	16/5/2007	2 – 3	11	18
	16/5/2007	3 – 5	31	65
VRD <sup>C</sup>	25/5/2006	3	20	25
VRD <sup>W</sup>	10/7/2005	4	16	6
Barkly <sup>E</sup>	12/4/2005	3	15	27
	28/7/2005	2	15	100
Barkly <sup>N</sup>	6/4/2005	0.75	30	63
Barkly <sup>W</sup>	11/4/2005	2	18	78
Barkly <sup>N</sup>	28/6/2005	2	20	40
Darwin	21/4/2005	2	20	45
Douglas Daly	2/6/2005	2	22	23
Katherine	26/6/2006	1.5	23	83

<sup>†</sup>Superscript letters stand for the following; C = central, N = north, S = south, E = east, W = west; VRD = Victoria River District.

Cattle were found to have been previously infected with BVDV on every property on which samples were collected (Table 1). The prevalence of infection in groups of cattle on individual properties varied from 6% to 100%. When the results from all the properties were averaged, about 63% of animals had previously been infected with BVDV by the time they were 3 years old.

On some properties where heifers from different age groups were tested such as in the Alice Springs<sup>S</sup> and Sturt Plateau districts, it was found that 90% or more of the heifers had previously been infected with BVDV by the time that they had reached 2 years of age (the age when heifers are traditionally joined for the first time in the NT), and thus vaccination against BVDV would be unnecessary in these mobs. Conducting a BVDV serological profile on heifers prior to mating provides the basis for rational decision making with respect to BVDV control.

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