Mapping Brucellosis Herds

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Introduction
The mapping programme initiated in cooperation with ERAD in 1990 to map the national distribution of brucellosis restricted herds continued in 1993.

Method
Data entry of restrictions at the District Veterinary Offices, data validation within the ERAD section of the Veterinary Division and transfer and processing at The Tuberculosis Investigation Unit are now fully computerised using the epidemiology software package EPINFO. The Tuberculosis Investigation Unit using the EPINFO Convert command transforms the record data files to DBase III format. The DBase files are then used within PC ARCINFO v3.4D to generate point coverages with the attached herd data allowing different combinations of maps to illustrate the data.

Discussion
A national map illustrating the distribution of active and non-active infection for the restricted herds is shown in (Figure 1). This overview of the national scene can be analysed further within ARCINFO using the buffer command. This allows closer interrogation of the data to show the detail of restricted herds across county boundaries (Figure 2.). This is an important advance in that it can allow such maps to be used between District Veterinary Offices in a management - coordination role. Furthermore other variables from the data base can be attached to the map e.g. the recorded epidemiology factors, dealer involvement etc. to further enhance the analytical role of the mapping programme.

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Figure 2. Distribution of brucellosis herds in County Limerick and those within 20 km of the county boundary in 1993.
Figure 1. Distribution of brucellosis restricted herds in 1993

Brucellosis Restrictions
+ Active Infection (152)
$\square$ Non-active infection (266)

Tuberculosis Investigation Unit – 1994