BVDV CONTROL IN SWEDEN

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A scheme aimed at eradicating BVDV in dairy and beef herds has been in place in Sweden since September 1993. It is coordinated by the Swedish Dairy Association, with financial support from the Board of Agriculture (BA). Subsidies are mainly directed towards infected herds, so monitoring of non-infected herds is mostly paid for by the farmer's themselves.

Initially, affiliation was voluntary. However, since mid '97 the dairy industry has required that all its suppliers should participate in the scheme. In '99, the beef industry followed. On 1 June 2002, a decree was issued by the BA that made the scheme compulsory for those that had not yet subscribed (only a handful), and indirectly (through repercussions on the regulations of the voluntary scheme) put more restrictions on animal movements. Today, animals from non-certified herds can, in practice, only be sold to slaughter.

Scheme monitoring is by testing for antibodies in bulk tank milk, in pooled milk from 5-10 primiparous cows or in individual serum samples from 5-10 young stock over 12 months of age. BVDV certification requires that a herd is sampled twice with a 7 months' interval with an approved result. Herds that have had high risk contacts within one year prior to affiliation need to have 3 approved tests. Annual re-testing is required to maintain the status, but in order to *trade* animal as free from BVDV-infection, or to access common pastures, exhibitions and similar, the latest re-test with approved result must have been made within the last three months (4 months for herds monitored by bulk milk). All field work is carried out by veterinarians and technicians at the regional livestock associations in collaboration with state employed and private large animal practitioners. Samples of bulk milk is collected by the milk quality laboratories.

The prevalence of dairy herds with bulk milk antibody levels indicative of ongoing infection has decreased from 52% in April 1993 to 5% by the end of 2001. Today (3 Dec. 2002) 652 herds are under investigation (219 dairy and 433 beef). A majority of those are free from the virus and awaiting to resume scheme monitoring. During the course of the scheme, around 3,500 herds have been actively cleared from the infection.

The annual incidence of new, confirmed infections (positive virus isolation in a herd previously certified as being free from BVDV) has decreased from 6 to 2 promille between 2000 and 2002 (up to Dec.). In numbers, there have been 50 new cases in ~24000 herds in 2002 (up to December). (Note that as this measure of incidence is based on identification of PI animals, the time point when virus was introduced into those herds is by nature at least 12 months back in time).

Since January 2001, herds that become infected after certification have been subjected to an investigation aimed at identifying the cause of the breakdown. These reports indicate that a majority of new infections are caused by intentional or unintentional non-compliance with existing regulations. This simply emphasises how the awareness about BVDV issues needs to be constantly reiterated. Approximately 30% are suspected to be a result of indirect transmission, something seen relatively more today as the major routes of between-herd transmission are under control.

The main objective during the final phase of the eradication is to minimise the time from detection of new infections to a finalised virus clearance. Measures are being instituted to shorten the time from detection to action, and to improve the efficiency by which herds are cleared from the infection. For the future it is, among other things, desirable to find more cost efficient ways to monitor beef herds. Also, faster early warning systems would be welcomed, in particular for beef herds.