

PROTECT YOUR INVESTMENT I

to reach full potential







Mycoplasma synoviae (MS) is the cause of **Infectious Synovitis**, a disease that primarily affects the joints and the respiratory tract.

Common clinical signs include synovitis, an inflammatory swelling of the joints of the legs (mainly the hock) and wings. Often this is associated with a creamy exudate that varies from clear to grey or even orange colour.





VISIBLE SIGNS OF MS.

These birds often develop breast blisters as they cannot stand. Airsacculitis with foamy to cheesy exudates in the airsacs can also be found, especially if secondary infection with *E.coli* is present. The birds inevitably show poor uniformity and runting and have to be culled, however some birds seroconvert without showing clinical signs.

Vertical transmission (via the egg of infected breeder hens) is the major mode of transmission for MS however horizontal transmission does occur from bird to bird and by contaminated equipment, clothing, shoes, egg boxes and other formites.

Treatment with antibiotics to limit the spread of MS infection is possible but has variable degrees of success. This inefficacy together with pressure from the consumer for 'drug free' product led to the development of MS vaccines. Today control of MS has been largely successful with a combination of vaccination (**Vaxsafe MS**) and blood testing of breeder chickens (PCR and ELISA).

HOW TO USE VAXSAFE MS

Vaccinate MS negative birds with **Vaxsafe MS** once between 3 and 14 weeks of age (*pref. 3-6 weeks*). A single dose by eyedrop administration provides protection for at least 40 weeks. **Vaxsafe MS** is safe to administer with other respiratory vaccines such as live *Mycoplasma gallisepticum* (Mg), Infectious Bronchitis (IB), Newcastle Disease (NCD) and Infectious Laryngotracheitis (ILT).

HOW IT WORKS

Vaxsafe MS persists on the mucosal surfaces of the upper respiratory tract of the bird where it continues to provide antigenic stimulation for the induction of local and cell mediated immunity. This protects against MS field challenge and subsequent vertical transmission with improved progeny performance for at least 40 weeks. Onset of immunity is rapid with maximum levels of protection reached 3 weeks post vaccination.

This allows for the monitoring of a vaccine response using RSA and ELISA serology.

THE SOUTH AFRICAN EXPERIENCE

Very little has been done in the past to control MS as the losses ascribed were considered to be insignificant, however recently this has changed dramatically. Severe losses due to Infectious Synovitis are now a common finding.

VAXSAFE MS TRIAL

Over a period of 2 years from 2006 to 2007, a **Vaxsafe MS** Trial was run on farms producing 1,8 million pullets annually and 100 000 breeders.

Pullet Vaccinations:

The result showed the average total cull and death rates (from day old to point of lay) dropped from 15-27 % to 3-5 % at present. For flocks that were challenged horizontally the total level of culls and deaths dropped from 8-12 % to current levels of 3-5 %

Breeder Vaccination Progeny:

Originally all flocks tested MS positive at 10 weeks and now after the breeder vaccination program they show MS low positive to negative.

Perhaps the most significant finding is that upon examination of progeny from **Vaxsafe MS** vaccinated parent flocks revealed that vertical transmission of MS strains previously associated with Infectious Synovitis was completely stopped.





VACCINE PRESENTATION

Vaxsafe MS is supplied in a plastic peel-top 30 mℓ eyedropper bottle with a rubber stopper and aluminium seal. Each bottle is supplied with a dropper teat and contains 1,000 doses.

VACCINE ADMINISTRATION

Thaw each bottle in a 35 °C water bath. Remove the aluminium seal and stopper and insert the dropper teat. A full eye drop dose should be administered to each bird. A blue dye can be added to the vaccine to check the accuracy of administration. Use within 2 hours of thawing.

VACCINE STORAGE

Vaxsafe MS is supplied frozen (on dry-ice) and should be held at –70 °C or lower if the full shelf-life of 4 years is to be achieved. The vaccine will, however, maintain its potency for up to 4 weeks if held in a freezer at –20 °C.

VACCINATION PROGRAM

Birds should be vaccinated with **Vaxsafe MS** once between 3 and 6 weeks of age. Birds should not be moved into a MS infected area until at least 3 weeks after vaccination. Vaccination of flocks in which antibiotics are being used (especially those with anti-mycoplasma activity) must be avoided. Where antibiotics have been used, allow for a period of drug withdrawal as prescribed for the antibiotic before vaccinating with **Vaxsafe MS**.

REGISTRATION HOLDER: Protect A Chick CC Reg. No. CK94/43822/23 **PO Box** 203 Skeerpoort 0232 **Tel** +27 (0) 12 207 1004 **Fax** +27 (0) 86 518 4966

DISTRIBUTED BY: Intervet South Africa (Pty) Ltd

Reg. No. 1991/006580/07 Private Bag X2026 Isando 1600

Tel +27 (0) 11 923 9300 Fax +27 (0) 11 392 3158 Sales Fax +27 (0) 86 603 1777

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