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MS-H

Vaccine Eyedrop Suspension

One drop away from solving your problems with Mycoplasma Synoviae!

Is a live, single dose vaccine with a long track record in providing secure protection against the adverse effects of MS in layers and breeders.

Novel Technology: MS-H is a temperatures sensitive strain of MS and unlike traditional vaccines (which only undergo a transient period of replication in birds) MS-H multiplies and persists in the trachea, but cannot spread further within the bird because the temperature sensitive nature of MS-H means that it cannot survive or grow at the birds 'core' or deep body temperature. The resulting persistence in the trachea constantly stimulates the immune response against MS.

In laboratory trials using severe MS challenge models in combination with IB virus (an exacerbating agent to MS), MS-H significantly reduced the level of air sac lesions, the first stage of progression of MS that leads to drops in egg production, poor shell quality and secondary bacterial disease.

In similar trials using a severe challenge model, MS-H demonstrated a significant reduction in numbers of eggs affected by Egg Apical Abnormality (EAA) or 'Glass Topped Eggs' compared to non vaccinated birds when challenge with one of the European strains of MS associated with this syndrome.

Some of the important features of an MS vaccine are; low risk of spread, no reversion to virulence and the ability to differentiate the vaccine from field strain. These features can all be found in MS-H. The high dose required to establish the vaccine in birds means that eyedrop administration is necessary and in addition, the shedding of vaccine strain is low. This also minimises the risk of vaccine spread to neighbouring flocks.

> **Safe, reliable and longlived immunity against Mycoplasma Synoviae (MS)**

Pharmsure International Ltd, Unit 28 Moorlands Trading Estate, Moor Lane, Metheringham LN4 3HX UK
Tel: +44 (0)1954 253800 Fax: +44 (0)1954 253819

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The attenuation process employed in developing MS-H involved the use of chemical mutagens rather than the traditional 'passaging' system. The result, no reversion to virulence was demonstrated with MS-H after 5 in vivo and 10 in vitro passages. In addition the temperature sensitive nature of the vaccine was also retained.

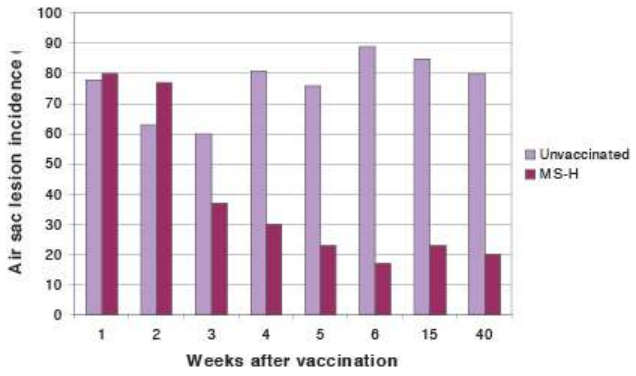
Strain identification with PCR techniques that are readily available allows differentiation of vaccine and field strains of MS allowing both diagnosis, screening prior to vaccination and validation of the administration process.

This means that MS-H is a vaccine that is safe and very unlikely to spread to unvaccinated flocks. The temperature sensitive nature of MS-H also will not allow colonisation of the internal body organs and as such vertical transmission is not possible.

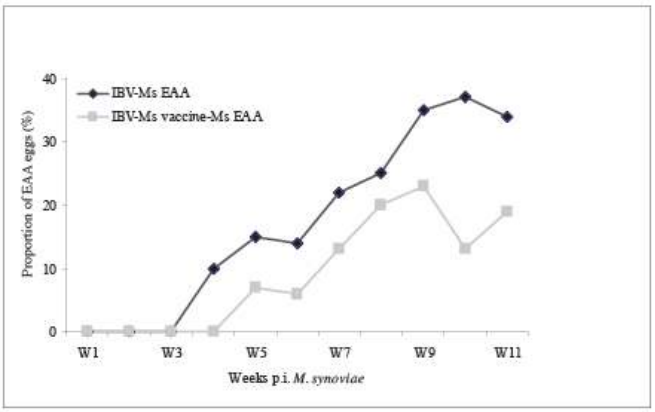
MS-H vaccine eyedrops suspension

- Unique, temperature sensitive live Mycoplasma synoviae vaccine
- Single dose, no respiratory reactions
- Protects against both air sacculitis and egg shell abnormalities
- Low propensity to spread
- No vertical transmission
- No risk of local reactions as with inactivated vaccines
- Increased egg numbers, reduced mortality
- Proven track record, used since 1995 and now available in over 45 countries
- Reduced need for antimicrobial therapy

Relative incidence in level of air sac leisons in vaccinated and unvaccinated birds over a 40 week period



Relative reduction of eggs affected by EAA in MS-H vaccinated and unvaccinated birds



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Eyedrops suspension. One dose (30 µl) contains: Mycoplasma synoviae Strain MS-H live attenuated thermosensitive, at least 105.7 CCU* Chickens from 5 weeks of age (future layer breeder chickens, future broiler breeder chickens and future layer chickens). For active immunisation of future broiler breeder chickens, future layer breeder chickens and future layer chickens to reduce air sac lesions and reduce the number of eggs with abnormal shell formation caused by Mycoplasma synoviae.Onset of immunity: 4 weeks after vaccination. The duration of immunity to reduce air sac lesions has been demonstrated to be 40 weeks post vaccination.The duration of immunity to reduce the number of eggs with abnormal shell formation has not yet been demonstrated
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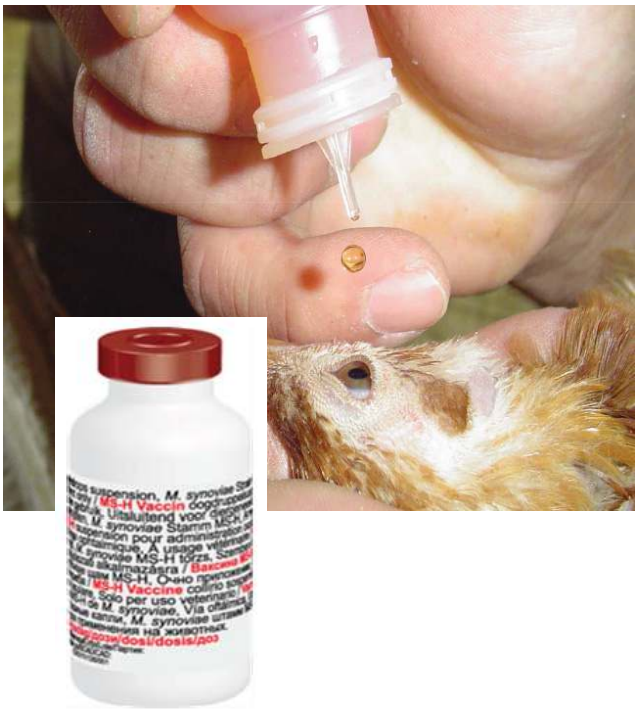
** Colour Changing Units*



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