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AVIAN MYCOPLASMA VACCINATION

CURRENT PRACTISES AND BENEFITS INCLUDING DECREASED ANTIBIOTIC DEPENDENCE

C. Morrow

Technical, Bioproperties, Ringwood, Australia

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Live mycoplasma vaccines are now the state of the art for mycoplasma control where mycoplasma freedom is impractical or uneconomic. In breeders the ultimate measure of successful control is if the progeny do not need to have antimycoplasmal antibiotics during production. In layers live MG and MS vaccines are the first step to allow the rearing and production periods to be antibiotic free. Prevention of glass top eggs (associated with a particular MS strain) in layers has been achieved with MS-H vaccine solving a specific problem. These benefits can be obtained without supplementary killed vaccines. On multiage production sites these vaccines can displace field strains and they can be looked at as increasing the resistance of the birds to wild strain infection. Horizontal transmission is negligible. Key features are:

1. Vaccines need to be given by eye drop at least three weeks before expected challenge. The cold chain for delivery and storage needs to be respected.
2. Antimycoplasmal antibiotics can be expected to disrupt or decrease the immunity generated so they should not be used two weeks before vaccination or for the month after vaccination. Use after this period should be only on an as needed basis with pulse administration if possible.
3. MS can mimic anything MG can (use PCR for diagnosis) and needs to be controlled. Serology is often equivocal.
4. Improvements in production parameters including egg production, FCR of egg production, egg quality.