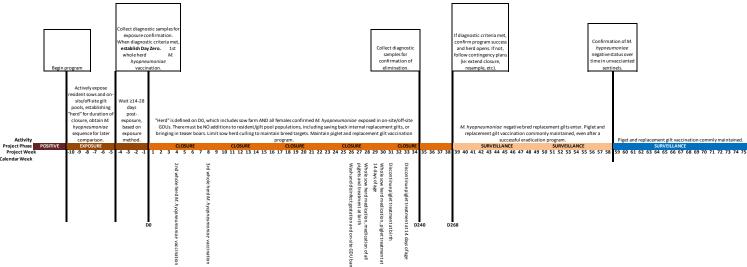
Example timeline of a herd closure and medication program for M. hyopneumoniae eradication using aerosolization exposure Compiled by Sponheim, Geiger, Fano, and Pieters, 2023.



Guidelines

1 Phases include:

Historically positive production, mature breeding population acclimatized to *M. hyopneumoniae* (*M. hyopneumoniae* positive flow)

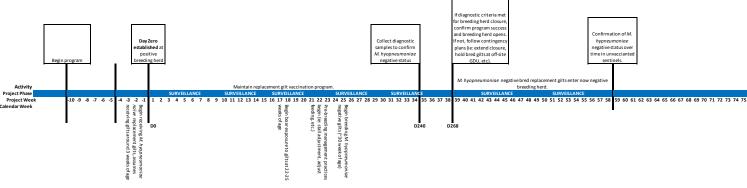
Exposure: Exposure of all resident population sows and as many replacement gilts as possible, with the expectation of *M. hyopneumoniae* colonization and immune response. Varies based on exposure method: 2-4 weeks for aerosolization, may be 8-12 weeks for natural contact, depending on seeder: contact ratio.

Closure: The herd (resident sows plus pre-determined/exposed replacement gilts) is defined. No introductions to this population. Must be >240 days, typically 252 days (36 weeks) Surveillance: Monitoring clinical signs and targeted testing to continue confirming project success in naive replacement gilts

Surveillance: Monitoring clinical signs and routine testing to identify new introductions

Zero (DD) marks the end of the exposure phase and beginning of closure phase. DD is established by PCR testing of replacement gilt population and serology of breeding herd if historical M. hyppneumoniae acclimation program.

Example timeline of concurrent off-site *M. hyopneumoniae* negative breeding project: Compiled by Sponheim, Geiger, Fano, and Pieters, 2023.



1 Off-site breeding project population is NOT considered part of "herd" during closure

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- Alfonso, A., Geiger, J.O., Freixes, C., Fonz, J.C., and Torremorell, M. (2004). Mycoolasma hypaneumoniae and PRRSV elimination in a 1700 sow multi-site system. Proceedings Allen D. Leman Swine Conference, St. Paul. MN, USA 13.
- Robbins, R., Betlach, A., Mondragon-Evans, M., and Pieters, M. (2019). Development of a herd-specific lung homogenate for exposure to Mycoplasma hyopneumoniae under field conditions. Journal of Swine Health and Production, 27(4), 221-227.
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