INTRODUCTION
Porcine Reproductive and Respiratory Syndrome virus (PRRSv) type 1 may give rise to significant clinical issues on commercial pig herds and its role in the manifestation of diseases may be underestimated. This longitudinal study demonstrates the range of benefits of implementing a whole herd PRRS MLV vaccination programme using frequent, mass vaccinations of the sow herd along with routine piglet vaccination, as part of the 5 Step Process, at the same time as improved implementation of the 10 Management Rules.

MATERIALS AND METHODS
A 1,700 sow herd located in an area of low pig density in central Ireland was identified for improvements in PRRS control and potential PRRSv eradication. The unit consisted of two sites: a closed, combined breeding and nursery facility, and a separate finishing facility. PRRSv was not thought to be giving rise to disease on the unit. The sow herd had been vaccinated once per cycle, on a weekly basis, with a modified live PRRS vaccine (Porcilis® PRRS) in mid pregnancy. All breeding gilts were vaccinated twice with this vaccine, at 12 weeks of age and prior to 1st service. A decision was made (July 2016) to begin a control and future eradication programme, commencing with mass vaccination of the adult population with ReproCyc® PRRS™ (every 3 months) and vaccination of all nursery pigs on site (4 to 12 weeks of age) one month later (August 2016). Thereafter, routine weekly vaccination of piglets, at weaning, with Ingelvac PRRS FLEX® EU™, took place. The ‘5 Step Process’ was discussed at this time (agreeing the PRRS status goal, determining the current PRRS stability status, identifying limitations, agreeing and implementing solutions and agreeing a future monitoring programme). Internal and external biosecurity were at a very high standard.

Performance data for almost 70,000 nursery pigs and 65,000 finishing pigs were recorded (AgroSoft) for before and after the implementation of the PRRS programme. Data for the finishing site began Nov 2016 and ceased May 2017, as new housing became available and this would be expected to contribute to any improvements observed thereafter. Regular sampling took place in order to determine the PRRSv stability status over time. A part time, additional staff member was employed to assist during the post farrowing period but no other changes occurred on the unit during this time.

RESULTS
A marked increase in performance was observed for both nursery (table 1) and finishing pigs (table 2). Improved neonatal piglet viability, a reduction in the incidence of diarrhoea and a tendency for a better response to treatment in diarrhoeic pigs was observed in the farrowing house. The breeding site (including the GDU) became PRRSv stable during the study period, however PRRS virus was found to persist in some areas of the finishing unit, up to July 2017.

DISCUSSION AND CONCLUSION
A large, two-site, pig unit that is unstable for PRRSv type 1 is likely to experience reduced feed intake, reduced growth rates and an increase in mortality, throughout the entire production, if PRRSv control is incomplete. Intervention to reduce the impact of PRRSv type 1, including frequent mass vaccination of the adults, weekly vaccination of piglets with PRRS MLV, and the implementation of the ‘5 Step Process’, is resulted in considerable improvements in pig performance. The reduction in diarrhoea observed in this case was likely due to the increased viability of neonatal piglets, aided by the additional labour provided in the post farrow period, to ensure higher and more consistent colostrum intake.

REFERENCES