A number of independent, anecdotal reports were received by the Department of Agriculture of reproductive failure in herds that had been treated for lice with pour-on organo-phosphates at the beginning of joining. Suspicion of these products had arisen more than 9 months after application when calvings were delayed or cows failed to calve. Records were generally not available and it was impossible to obtain a meaningful history in most cases. Published experimental evidence indicated that this type of insecticide had virtually no effect on the reproductive performance of bulls or on pregnant cows. No reports of investigations of the effect of pour-on organo-phosphate compounds at the start of joining on reproductive performance of cows have been found.

A herd of 60 mature Beef Shorthorn cows with calves at least one month old at foot were allocated from within weight and date of calving strata to three treatment groups. Four days before the start of joining one group was treated with 100 ml/head of Tiguvon Pour-on (Bayer, Germany; 2% W/V fenthion), the second with 15 ml/100 kg liveweight of Warbex (American Cyanamid Co.; 13.2% W/V famphur) and the third control group was not treated. They were kept in separate groups for four days after application to prevent cross-treatment, then regrouped and joined for six months with two mature bulls that had been examined for reproductive soundness. The cows were managed to ensure that none fell below 410 kg liveweight during joining. The calving pattern and mean day of calving for each treatment is given in Fig.1.

Fig 1. Calving distributions and mean day of calving (MDC) of cows that were untreated (control) or received pour-on louse treatments

The results of this experiment indicate that when applied to cows according to manufacturers recommendations Tiguvon and Warbex did not affect either rate or date of calving.

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