

# Use of the parasitoid wasp *Nasonia vitripennis* (Walker, 1836) in the control of *Musca domestica* L., 1758 and *Stomoxys calcitrans* (L., 1758) on two Norwegian pig farms

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Pupal parasitoids have attracted much attention for their potential control of house flies (*Musca domestica* L., 1758) and stable flies (*Stomoxys calcitrans* (L., 1758)). *Nasonia vitripennis* (Walker, 1836) a pteromalid gregarious pupal parasitoid, has been released for control of house flies on Norwegian pig farms during the last four years. There has, however, been no test of the efficiency of this wasp species on Norwegian premises. In the present study, the rate of house and stable flies parasitised by *N. vitripennis* was evaluated on two pig farms in southern Norway. The average number of house-fly pupae parasitised was 17 % (range 0-69 %) and 12 % (range 0-30 %) on the two farms, respectively. Stable flies was only abundant at one farm where the average level of parasitism was 5 % (range 0-17 %). It is possible that more frequent and prolonged release periods of *N. vitripennis* might give a greater parasitism of house flies as well as stable flies. On the farm with the lowest rate of parasitism, the naturally occurring wasp species *Spalangia cameroni* Perkins, 1910, was numerous. The combined parasitism of *N. vitripennis* and *S. cameroni* averaged 40 % (range 20-79 %) and probably contributed to fly control. Two wasp species not previously recorded from Norway, *Spalangia nigra* Latreille, 1805 and *Pachycrepoideus vindemiae* (Rondani, 1875), were observed.

**Key words:** *Musca domestica*, *Stomoxys calcitrans*, pupal parasitoids, *Nasonia vitripennis*, *Spalangia cameroni*.

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