

OR037*Review of recent Syngenta bee field study data on Thiamethoxam*Peter Campbell, Helen Thompson, **Mike Coulson**

Neonicotinoid residues in nectar and pollen from crop plants have been implicated as one of the potential factors causing the declines of honeybee populations. Indeed the European Commission has introduced a restriction for the use of Imidacloprid, Thiamethoxam and Clothianadin on selected bee attractive crops. However, much of the data that has implicated neonicotinoids in the decline of honeybee health has been generated either under laboratory conditions and/or have used unrealistic exposure conditions. In this review of Syngenta higher tier field data i.e. conducted under realistic field use conditions, the risk to bee colonies is investigated. Included within this review is a field study program investigating the risk to honeybee colonies following four years consecutive single treatment crop exposures to flowering maize and oilseed rape grown from thiamethoxam treated seeds at rates recommended for insect control. During the study honeybee mortality, foraging behavior, colony strength, colony weight, brood development, food storage levels and overwintering success are monitored and reported. The results from all these field studies confirm a low risk to bees from systemic residues in nectar and pollen following the use of thiamethoxam as a seed treatment on oilseed rape and maize. These results contribute towards reducing the gap in our understanding of exposure and risk to bees from the use of neonicotinoids as seed treatments under field conditions.