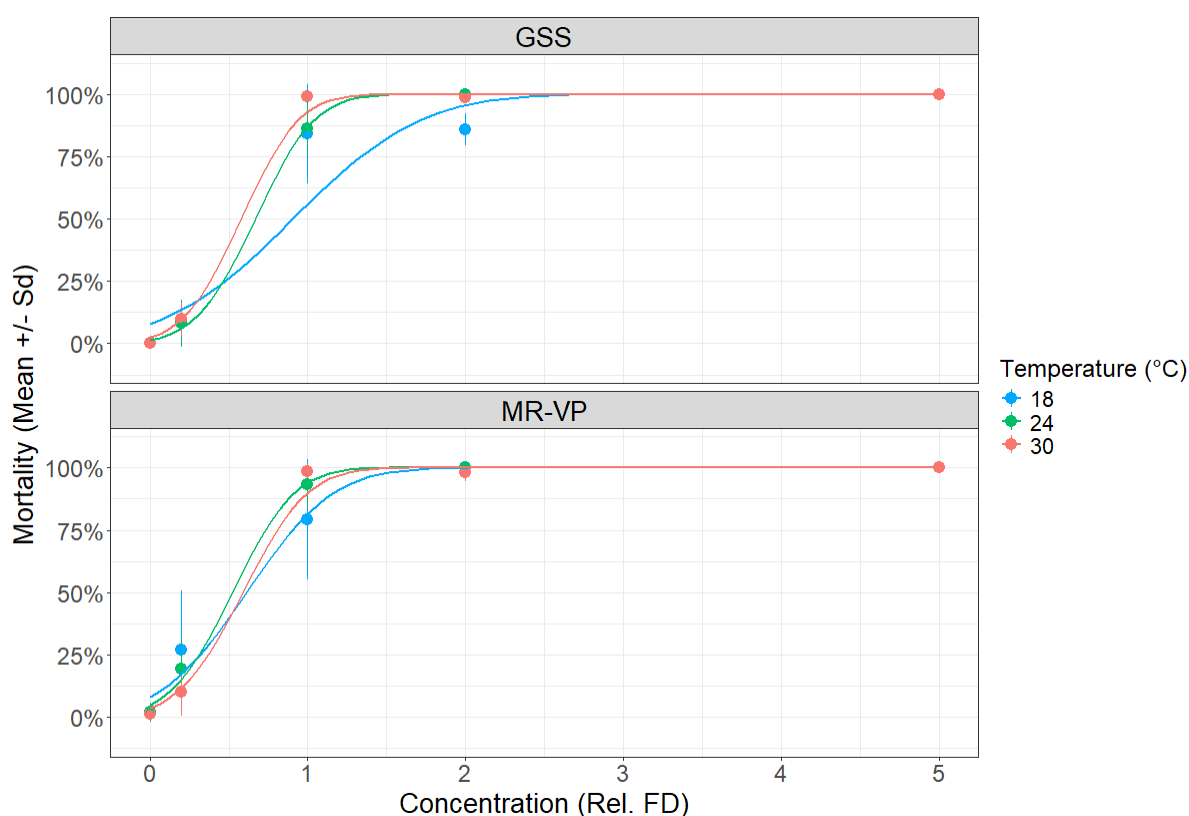


### **Spider mite toxicity assay – Siltac SF at different temperatures**

Adulticidal bioassays with Siltac SF were conducted based on a standard method (Khajehali et al. 2011; DOI 10.1002/ps.2191)). Two *Tetranychus urticae* lab strains were used: the susceptible “GSS” and the multi-resistant “MR-VP”. Briefly, 25-35 young adult female mites were transferred to the upper side of 9 cm<sup>2</sup> square-cut kidney bean leaf discs on wet cotton wool, lined with tissue paper. The mites were incubated at three different test temperatures (18°C, 24°C and 30°C) during 24 h hours (with 60% RH and 16/8 h (L/D) photoperiod), after which they were sprayed with 0.87 ml of spray fluid at 1 bar pressure in a custom build spray tower, resulting in  $2.00 \pm 0.02$  mg aqueous acaricide deposit cm<sup>-2</sup>. Four different Siltac concentrations plus a water control (dH<sub>2</sub>O) were included, all tested in four replicates. In line with the other experiments in the series, tested concentrations were 1/5 field dose (FD), 1 FD, 2 FD and 5 FD, with **1 FD being 0.1% of Siltac**. After spraying, the plates were placed back in the incubators at their original temperature. Mortality was assessed 3 days after spraying. Mites were scored “dead” if they did not move their own body length within 10 s after prodding with a fine brush. Mites drowned in the water barrier (negligeable) were removed from the analysis. The results are shown in **Figure 1**

**1** Siltac SF appears to be **very effective against *Tetranychus urticae* adults** (susceptible and multi-resistant strain) at a **dose of 0.1%, with 80-99% mortality** achieved three days after spraying. There is a trend for increased mortality at increasing temperatures.



**Figure 1** – Spider mite mortality three days after treatment with different concentrations of Siltac (with FD= 0.1%). The tests were performed at three temperatures (18°C, 24°C and 30°C) using the susceptible GSS strain and the multi-resistant MR-VP strain of *Tetranychus urticae*.