

Table 1. The efficacy of each tested compound in inhibiting the growth of *Saprolegnia parasitica* when tested using an *in vitro* agar diffusion method. The inhibitory concentration of commonly used chemotherapeutants is also shown

Inhibitory conc. of chemotherapeutants (ppm)	Plant extracts inhibiting growth at >100ppm	Plant extracts inhibiting growth at >10ppm
Pyceze >200	C	A
DDQ >1000	D	B
Formalin >50	I	E
Hydrogen peroxide >100	J	F
Malachite green >1	L	G
	M	H
		K

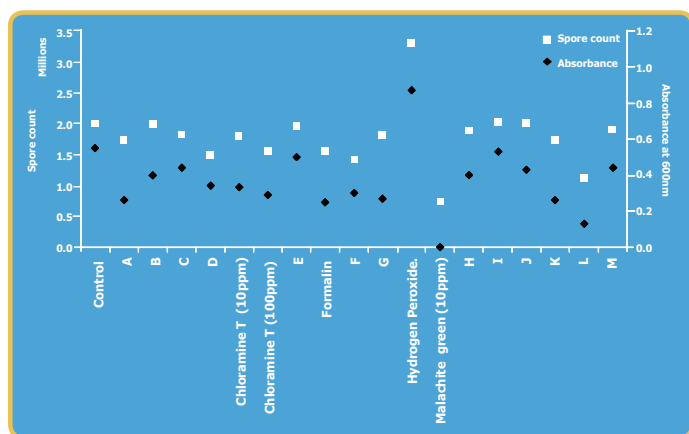


Figure 2. The effect of 12 plant extracts (duplicate counts) and 4 different chemotherapeutants on the growth of *Saprolegnia parasitica* 72 hours post-inoculation determined from spore counts and absorbance readings of broth cultures.

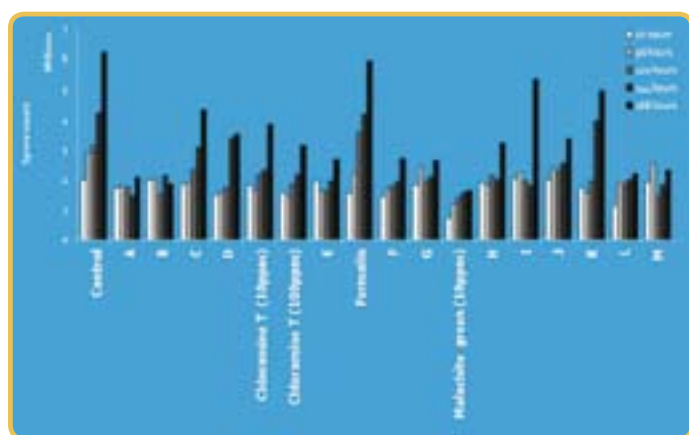


Figure 3. The effect of 12 plant extracts (duplicate counts) and 3 different chemotherapeutants on the growth of *Saprolegnia parasitica* 72-168 hours post-inoculation determined from absorbance readings of broth cultures.

In a second trial, 12 plant extracts found to inhibit growth at concentrations of 100 ppm or lower in the first trial, were added to cultures of *S. parasitica* in GP broth and the growth monitored spectrophotometrically at 600nm over a 7-day period against three commonly used chemotherapeutants (10ppm chloramine T, 100ppm formalin and 10ppm malachite green). All 12 plant extracts reduced growth of *S. parasitica* (Figures 2 & 3). The spore counts, however, suggested that only Compounds A, B, L and M, were as effective as 10ppm malachite green in slowing the growth of *Saprolegnia*.

In a third trial, an initial dose of plant extract was given at 72 hours post-inoculation, followed by a second dose at 120 hours (Figure 4). Spectrophotometry demonstrated that Compounds C-F and I were the most effective compounds tested. From the *in vitro* study, it is concluded that a range of plant extracts have an impact on the growth dynamics of *S. parasitica* but further research is required to assess their performance *in vivo*.

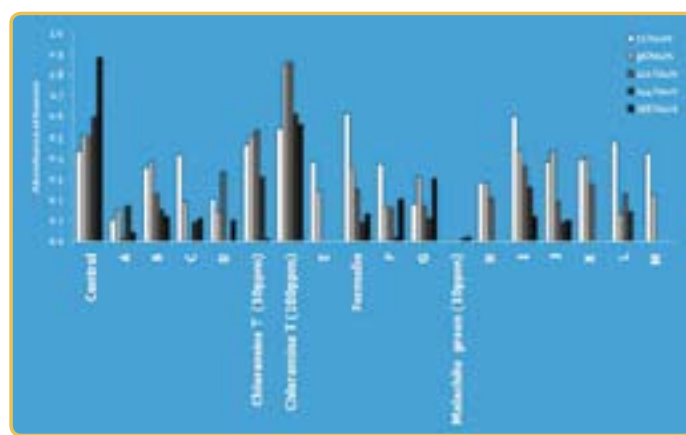


Figure 4. The effect of 12 plant extracts (duplicate counts) and 3 different chemotherapeutants on the growth of *Saprolegnia parasitica*, determined from absorbance readings of the broth cultures, when given as two doses at 72 and 120 hours post-inoculation.



Commonwealth Fellowship to work on Macrobrachium

Dr Sudha Kappalli of the Sree Narayan College in Kerala was awarded a Commonwealth Fellowship and has been working here for six months from October 07. In Kerala her field of study is on growth and reproduction in crabs so she used the opportunity to extend her research into *Macrobrachium rosenbergii*, a species of increasing importance in Indian aquaculture. She has been working with Janet Brown on looking at variations in ecdysteroid and methyl farnesoate levels in *M. rosenbergii* at different moult stages and different ovarian development stages. She also looked in a preliminary way at the variations found in the different male morphotypes. This work was carried out partly by radio-immunoassay, so we are indebted to the input from Dr John Taylor in this area and for the measurement of methyl farnesoate we were dependant on the HPLC guidance from James Dick.