

Supplementary material:

Table 1: List of *Heterodera avenae* geographical isolates, used for the study

Geographical location	Accession number	Source
India(Delhi)	KC152906	Umarao
Germany	AY148387	Subbotin
China	GU377252	Wang
Australia	HM560737	Peng
Israel	AY148363	Subbotin