**Table S2**: Cryopreservation of *S. hermaphroditum.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Freezing solution | Conventional IJ | Lipid agar IJ | Lipid agar J1-J3 | NGM J1-J3 |
| Trehalose-DMSO | ND | 0/mL | 5-20/mL | **>200/mL** |
| Glycerol-agar  Glycerol | ND  ND | ND  ND | <5/mL  <5/mL | 5-20/mL  <5/mL |
| Methanol wash | 0/freeze | 0/freeze | ND | ND |

Established protocols for the cryopreservation of other entomopathogenic and free‑living nematodes were tested for the ability to recover viable animals that had been frozen at ‑80°C. See Materials and Methods. A protocol using trehalose and DMSO gave high titers of viable, fertile animals. ND, not done.

Based on multiple test-thaw experiments, the viable animals are estimated to be around 10-50% of total frozen animals. Note this range of viability percentages does not completely reflect the proportion of animals that subsequently produced progeny.