The Influence of Ginger Root Extract on Female Reproductivity in Caenorhabditis elegans

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In recent decades, infertility rates have risen globally, with 11% of women and 9% of men experiencing decreased fertility. Studies pertaining to male fertility are abundant, yet studies of female fertility are lacking in number and underfunded. As a result of the high costs and limited access to treatments for female fertility issues, there's a growing interest in more accessible solutions. Ginger, known for its medicinal properties, has previously been investigated as a way of enhancing male fertility; in this study, the effect of ginger on female fertility was investigated using the model organism C.elegans. Despite C.elegans primarily being hermaphrodites, they can express female fertility traits and are ideal for such studies due to their simple maintenance, short life cycles, and short reproductive cycles. Previous experiments indicate that ginger can be safely ingested by C.elegans and might even contribute to extending their lifespan. This research aims to examine if a diet supplemented with ginger extract positively affects female fertility in C.elegans, focusing on egg production and progeny viability. It was hypothesized that ginger supplementation will increase both the number of eggs produced and the number of viable offspring compared to a control group. Quantitative analysis of data supports the potential of ginger extract as a natural female fertility enhancer, showing increased egg production and progeny viability in treated C.elegans.

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