

GM *Aedes Aegypti*

April 15, 2020

Why in news?

GM version of *Aedes Aegypti* plans to be released to control certain diseases.

GM mosquito

- The technology uses genetically modified **male *Aedes aegypti* mosquitoes** that carry a dominant lethal gene.
- When this male GM mosquitoes' mate with wild female mosquitoes the lethal gene is passed on to offspring.
- The lethal gene in the offspring kills the larvae before they reach adulthood.
- **Male mosquitoes do not bite humans, the release of GM males will not increase the risk of dengue, chikungunya and Zika.**
- Vector control using *Aedes aegypti* infected with the **bacterium *Wolbachia*** is achieved by using the life-shortening bacteria strain in both male and female mosquitoes.
- As *Wolbachia* is maternally inherited, the bacteria are anyway passed onto offspring.
- **Dengue, Zika or chikungunya viruses cannot replicate when mosquitoes have *Wolbachia*.**
- A feature of *Wolbachia* is that it is self-sustaining, making it a low-cost intervention.