1. Maybe below title you should have a short abstract describing what the program does, what scientific questions it seeks to answer/model, and what you can learn from it. The front page is kind of mysterious.
2. A screen shot of a computer

   Description automatically generated
3. “meaning the offspring of infected sperm can survive” – use “modified sperm” not infected sperm, because the sperm cells are technically not infected.
4. Add the citation to my review on this topic: <https://www.sciencedirect.com/science/article/pii/S0168952518302233?via%3Dihub>
5. Lets make a tab for “Experiments” and lets make a list of experiments and their results and discuss them and what the model tells us. Do you have that list of experiments we wrote down?
6. When I click run, I’m not sure what is happening in each box, during each cycle of the simulation.
7. What are the rules for migrating from box to box? We have to write a paragraph on these simulation basics

**This is a start of listing ideas for questions from those notes.**

1. **Lets make a list of questions,** and for each question we list out the parameters to test that question, and do a writeup of the results. Lets start with the first test questions that test if the model logically makes sense. And lets make a page that documents these tests. (almost like an activity).
   1. How did the CI system evolve in the first place? If an infected male joins a new population, its genes will just die out, and \*Wolbachia\* with it. Threshold of where \*Wolbachia\* becomes advantageous for the reproducing individuals. When does CI kick in? Can we model this with an EA?
   2. When the population is 98-100% fixated, there's no advantage to sterilizing sperm anymore. No more selective pressure. Genes start to collapse, and CI rates \*should\* go down, resulting in an oscillating pattern?
   3. CI induction rates: sperm kill rate of 50% vs kill rate of 99%?
   4. Is geography important? Set up a grid system for a simulation. Each grid square has a population of insects. Watch how infection spreads. Maybe geographical factors create situations that select for CI. Maybe there are ecological barriers?
   5. \*\*Question:\*\* What are the conditions that cause CI to establish from 0 to the threshold (at which CI becomes advantageous), and then the max? And what are the conditions that cause CI to spread geographically?
   6. Algebraic model suggests selective regimen for CI never increases CI rates inside the insect? When at the max rate, do we go up or down? If CI keeps spreading, algebraic model is *\*in\**valid.
   7. What is the *\*simplest\** experiment we could do to get started? Maybe... **\*\*How does the periodicity develop after the threshold is reached?\*\*** Just model the grid system and the insects, along with whether they're infected. Pretend all *\*Wolbachia\** have 100% induction and rescue. Can we replicate population fixation? Maybe just one grid box. How many insects do you need in *\*one\** grid box to get periodicity? What gets to a stable state, what gets to periodicty, etc.? Grid makes it a diffusion EA with delays and such.