Conventional fertilizer sprayers have certain drawbacks. The user comes in direct contact with the fertilizers and ends up carrying heavy load — both of which require excessive manual effort, not to mention the time consuming process. In the backpack-type pesticide sprayer model, user needs to carry the heavy tanker on the back, oscillate the leveller and hold the nozzle when spraying the pesticides. The team has developed a semi-automated pesticide spraying machine, which has an edge over the current models

## **Features**

- The equipment is customised specifically for farmers owning 5 to 6 acres
- It is suitable for spraying at minimum cost
- The rotary motion of the pinion is converted into reciprocating motion by single slider crank mechanism. Due to this arrangement, the connecting rod moves upward and downward, which then reciprocates the piston of single acting reciprocating pump that is mounted at the top of the storage tank. During the forward motion of the connecting rod the pesticide is thrown into the pump and during the downward motion of the connecting rod, the pesticide is forced through the nozzles
- The mounted solar panel can also be used to spray pesticides, and store energy in a battery for future use



54 PROJECT

SEMI-AUTOMATED PESTICIDE SPRAYING MACHINE

Puneeth M Y ME

Purushotham M ME