

Technology Ready for Commercialization

Pre-Emergence Herbicide Strip Applicator



The ICAR-Central Institute Agricultural Engineering developed technology has proved to be a real helping hand in controlling the weeds in the agricultural lands.

The Weed control is considered to be one of the most important aspects in the present agricultural scenario. The Weed plants compete with the crops for the soil nutrients, moisture, light and space. Unless the weeds are controlled at the appropriate stages of the crop growth, the crop growth is adversely affected resulting in the poor yields. The strip application of herbicides and reduced rates of herbicides are Integrated Weed Management (IWM) tactics.

Keeping these points in view, the ICAR-CIAE has developed a pre-emergence herbicide strip-applicator for applying the herbicide at the time of sowing in widely spaced crops for controlling the weeds along the crop rows, often not possible in mechanical weeding.

A 6-row strip-application unit was developed as an attachment to the tractor operated inclined-plate planter. It consists of a frame on which 6 flat fan spray nozzles were mounted by the means of clamps, a single action piston pump with 9 l/min capacity, pressure regulator valve, pressure gauge and pressure pipes. The operating cost of the applicator with inclined plate planter was worked out as Rs. 1350/- per ha. The same machine can be used as post-emergence herbicide/pesticide applicator after the removal of furrow openers and increasing the height of nozzles from the ground.

The initial cost of the applicator with inclined plate planter is Rs. 66,800.00.