



Modified knapsack sprayer

Mohan Muktaji Lamb

Beed, Maharashtra

Mohan Muktaji Lamb (39) is a farmer and an innovator. He has modified the commonly available knapsack sprayer, which has resulted in obtaining and maintaining higher pressure for spraying. His sprayer is a low cost, labour efficient and low maintenance product.

He comes from a farming background and lives in a small village with his family of four members including two sons and wife. As a child he was always fond of science and technology and liked making equipments and toys of various kinds. He could not study beyond class ten and took up farming as a profession. He has four acre of land where he grows vegetables of different kinds.

Mohan observed that many of the existing sprayers are difficult to operate due to fatigue which sets in early and poor efficiency due to frequent nozzle

blockage. The pressure also dropped after short spell of use. He tried to come up with something of his own but without success. Once he was helping his son make a simple model of a sprayer that an idea struck him. He then made certain modifications in the knapsack sprayer, which include changes in pressure reservoir, resulting in higher pressure and the provision of changing the stroke length for varying the delivery rate. His sprayer has three gear systems, low cost filtration unit, and prolonged handle for more pressure. It also has a pressure chamber of greater size which can store more pressure for longer use of the sprayer. Two booms can be attached to his sprayer, which can cover 1 ha/ 7 hr with a single nozzle and over 1 ha/ 5 hr with both the nozzles. This sprayer helps the farmers to spray more area in lesser time.

For the development of his sprayer, he received some grant from NABARD as well. NIF filed a patent in his

name and forwarded the same to Central Institute of Agricultural Engineering, Bhopal for testing and possible inclusion in the subsidy list, which will ensure higher sales for the innovator.

