

Impact on FLD of Improved Implements

Background:

Group discussion with the farmers in the operational area of the KVK, revealed that during the peak period of different farm operations, scarcity of farm laborers is the main burning problem. Also the farm operations are time consuming and costly with more drudgery. Except for tillage, other operation like sowing, weeding, spraying, harvesting, cleaning are generally performed manually. No improved hand tools & power operated machinery are available at farmers level. There is a gap in adoption of improved implements/ machinery. To create awareness amongst the farmers about usefulness and economic utility of improved implements / machinery, FLD on improved implements were conducted in the operational area of the KVK. Bullock drawn sprayer & power operated grain cleaner were found special interest among the farmers.

A. Impact of Bullock drawn sprayer

Introduction:

The incidence of insect pests is one of the major problems affecting the productivity. Indiscriminate spraying is undertaken by the farmers. The spraying operations are traditionally practiced by using Knapsack sprayer. Due to frequent filling of the liquid tank and low field capacity, it required more time, labour & high cost of operation.

Objective:

To create an awareness & demonstrate high field capacity sprayer

Methodology:

The technology, Bullock drawn sprayer received under FLD cotton, was demonstrated in the villages Naya Akola Tq Amravati & Hiwarpurna, Wadhona, Yesurna Tq Achalpur for cotton, Greengram, Sunflower crops. Total four training cum demonstration programmes were conducted by covering 102 no of participants. Total 262 ha area was covered under demonstration. For more popularization of the sprayer, leaflets and folders were published.

Observations:

It was observed 1 to 1.2 ha/hr field capacity and cost of operation Rs. 20 to 30 /ha. It saved 75 to 95 % labour, time & cost as compared to Knapsack sprayer. At the time of turning-up of bullock drawn sprayer 2 to 3 % crop damage was observed. The

capacity may vary slightly depending on skill of labour, Bullock pair & labour charges. Bullock drawn sprayer is more useful for large landholding farmers.

Impact:

Created awareness about the usefulness of bullock drawn sprayer amongst the farmers

1. Economic Gain: Farmers under demonstrations saved Rs. 75 to 110/ha on account of spraying operations carried out by the Bullock drawn sprayer over the Knapsack sprayer.

2. Constrains in Adoption:

1. Small and fragmented land holding
2. Economic status of farmers
3. High cost of sprayer
4. Non-availability of the Bullock drawn sprayer on subsidized rates

Conclusion:

It had proven successful due to low cost of spraying /unit area by saving labour, time and cost as compare to Knapsack sprayer.



Training cum demonstration of bullock drawn sprayer in cotton



Demonstration of Bullock drawn sprayer in Sunflower crop

B. Impact of Power Operated Grain Cleaner

Introduction:

Cleaning and grading are the important operations of primary processing of agriculture produces. Undesirable foreign materials like dirt, dust, leaves, trashes, stones, sands etc are removed from the produces during cleaning operation. In the adopted villages, cleaning of cereals, pulses & oilseeds are done for the seed purpose and to get higher value in consumer market.

Problems:

Cleaning operation is carried out manually either by winnowing or hand sieves. It is laborious, time consuming & costly.

Objectives:

To create awareness amongst the farmers about usefulness and economic utility of Power operated grain cleaner

Needs:

In order to overcome this problem, need of improved cleaner of medium capacity is essential at farmer's level.

Methodology:

FLD on power operated grain cleaner was conducted in the adopted villages. Under FLD implements (Oilseed), pedal operated grain cleaner was supplied by CIAE Bhopal in year 2002. After training & demonstration it was found that output capacity is very low because the single person on bicycle pedal could not operate the machine continuously and got low cleaning efficiency. Women worker also could not work on the machine. Hence the pedal operated grain cleaner was converted into power operated by using 0.5 hp single phase electric motor. Large no of training cum demonstration programmes were arranged. Leaflets and folders were also published. Displayed the machine in fifteen exhibitions & number of field day were also conducted. All total 597qt of grains was handled by 35 farmers in the villages namely Wadhona & Yesurna Tq Achalpur & KVK instructional farm under demonstration.

Observation:

The performance observed was 6 to 8 qt /hr output capacity for wheat, soybean Gram, Jowar crops. Also, observed 0.22 to 0.30 man hr / qt labour required. Thus, it saved 80 to 90 % labour, time & cost as compare to traditional practice.

Impact:

Farmers put forth the demands to purchase on their own. Considering the demand generated from farmers and line departments, KVK promoted one manufacture M/s Ajay Industries, C-3, MIDC, Amravati at district level for fabrication & ease in availability of the machine locally. Till today the firm sold 25 machines in different sectors/ villages by manufacturing at his own factory. In the mean time the Power operated grain cleaner got approval in subsidy items list by commissioner of Agriculture, Govt of Maharashtra, Pune. The machine efficiency was further upgraded by adding rubber roller unit for crushing grain size stones and wheat trashes for wheat crop cleaning and grading .

1. Economic Gain : Farmers under demonstrations, fetched more market price ranging from Rs. 12 to 15 /qt on account of cleaning operations done by the Power operated grain cleaner over the traditional practice.

2. Constrains in Adoption on large scale:

Economic status of farmers

Conclusion:-

It is very well acceptable by the farmers in terms of its utility / performance.



Demonstration on Pedal operated grain cleaner



Power operated grain cleaner mfd by M/s Ajay Ind, Amravti & it's testing



Demonstration on Power operated grain cleaner



Participation in State Level Exhibition