

FRONT LINE DEMONSTRATION 2020

CFLD (NFSM) on Moong (Kharif-2020)

Area : 20 hectare
No. of Demon. : 50

Variety – MH 421
Local check – SML 668

State average yield : 5.59 q/h (2019-20)

District average yield : 3.86 (2019-20) q/h

Demonstration yield (q/ha)			Local check yield (q/ha)	% Increase in yield
High.	Min.	Av.		
14.80	7.80	9.33	7.59	22.92

MSP : Rs. 7196/- qtls (Rabi 2020-21)

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	18613	16336
Gross Return(Rs./ha.)	67139	54618
Net Return (Rs./ha.)	48526	38282
B:C Ratio	3.61	3.34

Extension activities under CFLD (Moong) conducted:

Field days (3)	:	89 participants
Field visit (7)	:	168 participants
Media coverage (1)	:	Not fixed

Technical feedback:-

1. Need of varieties, having tolerance or resistance to yellow mosaic virus and low water requirement.
2. Need of research on bio pesticides to control white fly & pod borer.

Framer's reactions:-

1. Good response of the variety and basal application of fertilizers.
2. Good response of bio pesticides against white fly & pod borer.



Impact on CFLD (MH-421, a mungbean variety with full package)

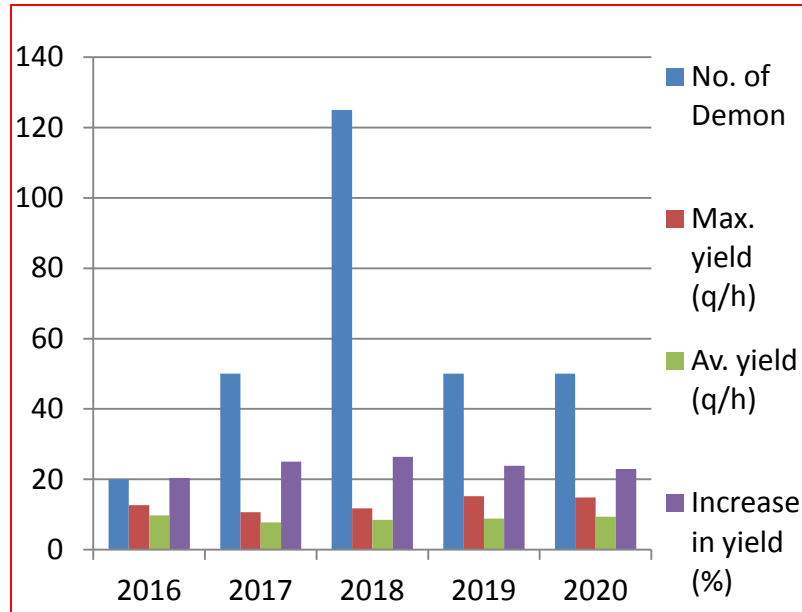


Fig.: Year-wise details of CFLDs

Included in POP (2019)

Now a day, this variety is sown in 18,700 ha of the total area sown under mungbean in the district.

Table : Details of CFLDs

Year	Area (ha)	No. of Demon	Yield (Q/ha)		Increase in yield (%)	Year wise adoption (ha)
			Max.	Av.		
2016	8	20	12.60	9.70	20.35	500
2017	20	50	10.63	7.70	25.00	4000
2018	50	125	11.80	8.44	26.34	8100
2019	20	50	15.20	8.84	23.81	16000
2020	20	50	14.80	9.33	22.92	18700

Variety MH 421 is suitable for the area due to short duration (60-65 days) and good yield potential. Medium seed size (32g per 1000 seeds) with light green color hence the market price is higher than existing variety



CFLD (NFSM) on Mustard (Rabi-2020-21)

Variety – RH-725
Local check – Laxmi (RH 8812)

Area : 67.6 hectare
No. of Demonstration : 169

State average yield (2019-20) : 15.86 q/h

District average yield (2019-20) : 13.95 q/h

Demonstration yield (q/ha)			Local check yield (q/ha)	% Increase in yield
High.	Min.	Av.		
24.90	16.00	21.69	18.10	19.83

Sale price: Rs.5200-5500/- quintal
MSP : Rs. 4650/- quintal (Rabi 2020-21)

Sale price of straw: Rs.150/- quintal

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	23727	23332
Gross Return(Rs./ha.)	124128	103600
Net Return (Rs./ha.)	100401	80268
B:C Ratio	5.23	4.44

CFLD (NFSM) on Mustard (Rabi-2020-21)

Variety – RH-0749
Local check – Laxmi (RH 8812)

Area : 67.6 hectare
No. of Demonstration : 169

State average yield (2019-20) : 15.86 q/h

District average yield (2019-20) : 13.95 q/h

Demonstration yield (q/ha)			Local check yield (q/ha)	% Increase in yield
High.	Min.	Av.		
26.40	16.00	20.52	18.10	13.37

Note:- Sale price: Rs.5200-5500/- quintal
MSP : Rs. 4650/- quintal (Rabi 2020-21)

Sale price of straw: Rs.150/- quintal

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	23727	23332
Gross Return(Rs./ha.)	117510	103600
Net Return (Rs./ha.)	93783	80268
B:C Ratio	4.95	4.44

Extension activities under CFLD (Mustard) conducted:

Field days (6)	:	252 participants
Field visit (15)	:	570 participants
Media coverage (2)	:	Not fixed

Framer's reactions:-.

1. Farmers were satisfied with the performance of RH-725 variety of mustard in reference of seed yield. This variety can be an alternative to Laxmi (RH-8812) variety in this region..
2. Good response of basal application of fertilizers.

Technical feedback:-.

1. Development of frost resistant bold seeded varieties of mustard.
2. Need for research on planting space in mustard crop.
3. Strong strategies should be developed for *Sclerotinia* stem rot disease in mustard.
4. Evaluation of some effective herbicides to control of weeds in mustard.

Impact on CFLD (RH-0749, a mustard variety with full package)

Table : Details of CFLDs

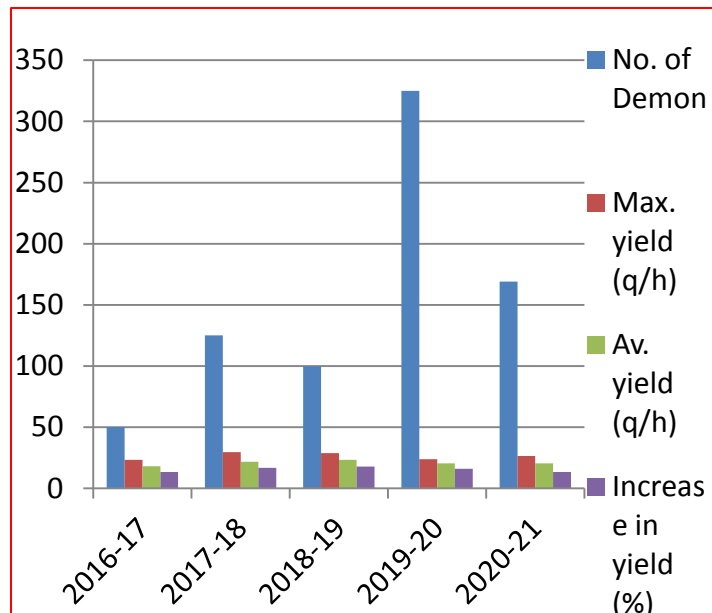


Fig. : Year-wise details of CFLDs

Suitable for wider spacing (45 cm)

Variety RH 0749 is suitable for the area. Maturity period is 146-148 days and average yield is 24-26 q/ha. Seed are bold and contain 39-40 per cent oil.

Year	Area (ha)	No. of Demon	Yield (Q/ha)		Increase in yield (%)	Year wise adoption (ha)
			Max.	Av.		
2016-17	20	50	23.40	18.03	13.25	3000
2017-18	50	125	29.60	21.76	16.80	7400
2018-19	40	100	28.80	23.36	17.81	12300
2019-20	130	325	23.80	20.45	16.00	15600
2020-21	67.6	169	26.40	20.52	13.37	21900

Due to technology intervention

- Yield increased up to 17.81%.
- Infestation of Sclerotinia stem rot disease reduced.
- 15,600 ha area covered of the total area of mustard by RH 0749.



CFLD (NFSM) on Chickpea (Rabi-2020-21)

Variety – GNG-2144
Local check – GNG-663

Area : 9.6 hectare
No. of Demonstration : 24

State average yield (2019-20) : 10.80 q/h

District average yield (2019-20) : 6.27 q/h

Demonstration yield (q/ha)			Local check yield (q/ha)	% Increase in yield
High.	Min.	Av.		
22.20	16.40	18.23	15.92	14.51

Note:- Sale price: Rs.4700-5000/- quintal
MSP : Rs. 5100/- quintal (Rabi 2020-21)

Sale price of straw: Rs.150/- quintal

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	30521	28097
Gross Return(Rs./ha.)	93898	82000
Net Return (Rs./ha.)	63377	53903
B:C Ratio	3.08	2.92

Extension activities under CFLD (Chickpea) conducted:

Field days (3)	:	115 participants
Field visit (9)	:	246 participants
Media coverage (2)	:	Not fixed

Technical feedback:-

1. Need for effective herbicides to control pyaji (*Asphodelus tenuifolius*) in gram crop

Framer's reactions:-

1. Good response of the varieties and basal application of fertilizers.
2. Good response of trichoderma against wilt & root rot diseases



Impact on CFLD (GNG-2171, a chickpea variety with full package)

Table : Details of CFLDs

Year	Area (ha)	No. of Demon	Yield (Q/ha)		Increase in yield (%)	Year wise adoption (ha)
			Max.	Av.		
2017-18	2	5	24.00	21.52	28.17	1000
2018-19	16.8	42	26.80	19.72	22.87	6000
2019-20	11.2	28	23.60	18.30	15.38	18000
2020-21	10.4	26	22.80	18.74	17.71	26000

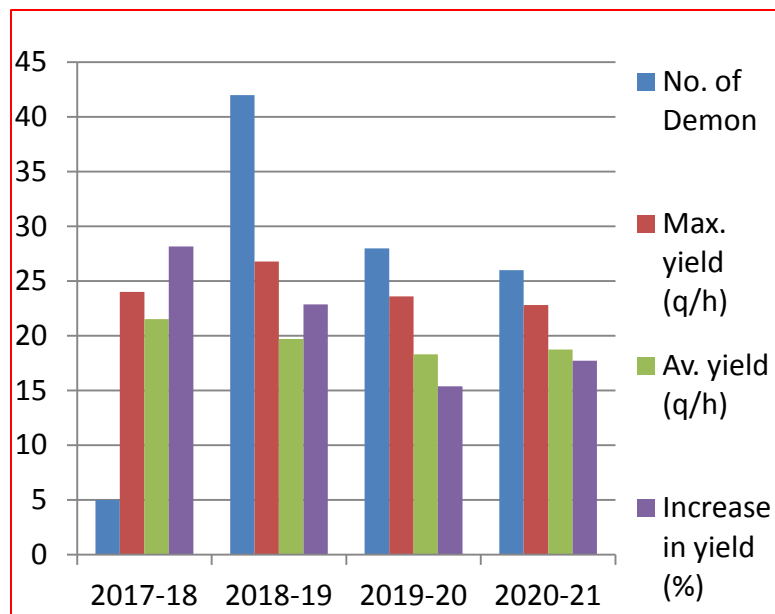


Fig. : Year-wise details of CFLDs

Due to technology intervention

- Yield increased up to 28.17 per cent.
- GNG-2171 (Meera) variety is being sown in about 26,000 hectare area of the district.

Variety GNG-2171 (Meera) (released in 2017) is suitable for the area. Maturity period is 150 days and average yield is 24 q/ha. Seed are medium (Test weight 16.5 g). Suitable for timely sowing in irrigated conditions.



FLD on IPM in Bt. Cotton (Kharif-2020)

Area (ha) - 4

No. of Demon. 10

Technology demonstrated – IPM module

Local check – Farmer's practice

State average yield (2019-20) : 6.23 q/h

District average yield (2019-20) : 7.04 q/h

Yield (q/ha)				% Increase in yield
High.	Min.	Av.	Local check	
24.25	16.20	20.18	16.45	22.67

Note:- Sale price: Rs.5440-5665/- quintal

Economics

MSP : Rs. 5665/- quintal (Rabi 2020-21)

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	61758	60513
Gross Return(Rs./ha.)	114320	93189
Net Return (Rs./ha.)	52562	32676
B:C Ratio	1.85	1.54

Technical feedback:- Para wilt management in cotton

Framer's reactions:- Neem oil helps to manage sucking pests and buildup population of natural enemies. Cost of chemical pesticides reduced.

Yellow sticky trap in Bt cotton used for monitoring and management of sucking pests like whitefly, thrips and red mites effectively.

FLD on Trichoderma in Chickpea (Rabi-2020-21)

Area : 4 hectare
No. of Demonstration : 10

Variety – GNG 1581

State average yield (2019-20) : 10.80 q/h

District average yield (2019-20) : 6.27 q/h

Yield (q/ha)				% Increase in yield
High.	Min.	Av.	Local check	
20.25	16.13	18.59	16.45	13.00

Note:- Sale price: Rs.4700 -5000/- quintal
MSP : Rs. 5100/- quintal (Rabi 2020-21)

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	29971	28471
Gross Return(Rs./ha.)	92950	82250
Net Return (Rs./ha.)	62979	53779
B:C Ratio	3.10	2.90

feedback:- Trichoderma is easily available in market. Farmers can be preparing at own farm.

FLD on Broccoli (Rabi-2020-21)

Area : 0.5 hectare
No. of Demonstration : 10

Variety – Green magic
Local Check-Cabbage

Yield (q/ha)				% Increase in yield
High.	Min.	Av.	Local check	
258.2	211.5	237.7	249.7	(-) 4.7

Note:- Sale price of broccoli: Rs.1600-1800/- quintal

Sale price of cabbage: Rs.800/- quintal

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs/ha)	68954	65358
Gross Return(Rs./ha.)	427860	199520
Net Return (Rs./ha.)	358906	134162
B:C Ratio	6.20	3.10

feedback:- Yield of crops is at par but B:C Ratio from Broccoli is very high due to its higher market price with good yield.

FLD on Kitchen Gardening (2020)

Area under each demonstration : 150 sqm
No. of Demonstration : 20

Duration : One year

Average Yield (Kg)		% change in yield	Other parameters (Availability of fresh vegetables)	
Demo	Local check		Demo	Local
341.4	128.9	164.9	Maximum	Least

Local check : 2 or 3 vegetables only

Economics

	Demonstration Plot	Farmer's Existing Plot
Gross Cost (Rs)	990	615
Gross Return(Rs)	10242	3867
Net Return (Rs)	9252	3252
B:C Ratio	10.3	6.2

Farmers' reactions:- Kitchen gardening can improve health, save money, maximum use of space in backyard and even wonderful activity for relieve stress.
Availability of fresh and chemical free vegetables.
Improvement in dietary intake and nutritional status..

FLD on Use of by-pass protein with mineral mixture - 2020

No. of Demon. : 10

Animal – cross breed HF cow 2 (10) 2-3rd lactation

Milk Yield (lit./day)				% Increase in yield
Animals under demonstration			Local check animals	
High.	Min.	Av.	Av.	
23	16.5	19.3	15.4	25.32

Economics

	Demonstration	Farmer's practice
Gross Cost (Rs/ha)	233.28	180.4
Gross Return(Rs./ha.)	521.1	338.8
Net Return (Rs./ha.)	287.82	158.4
B:C Ratio	2.23	1.88

Results:- Average milk production increased with Fat% and SNF% as compare to normal feeding of animal at farmer's level. Due to this, sale price of milk is also increased at milk collection center from 20 Rs/lit to 26.00 Rs/lit. Animal health condition also improved.

Framer's reactions:- Farmer's were satisfied with feeding by pass protein with mineral mixture in terms of milk density/viscosity and sale price..

FLD on Anestrous in lactating buffaloes - 2020

No. of Demonstrations : 20

No. of Buffaloes -20
2-3rd lactation

Treatment given for Anestrous	No. of animals comes in heat & conceived
Mineral Mixture@ 50g bd + Cu & Co tablets. (local check)	6 Animals conceived out of 20
Mineral mixture@ 50 g bd + Cu & Co tablets + deworming of Animals. (Demonstration)	16 Animals conceived out of 20

Results:- Result shows that 16 animals conceived out of 20 animals treated with mineral mixture, Cu & Co tablets and deworming. It is revealed that mineral mixture is required for reproduction in buffalo and Cu & Co is major ions for reproduction but presence of internal parasites reduces absorption of minerals and nutrient loss in animal body that leads to temporary infertility .

Framer's reactions:- Animals treated with Mineral Mixture and Cu & Co tablets with de-worming; animals show heat signs and have least reproductive problems..

Results of FLD:

Enterprises	: Fish culture
Year	: 2019-20
Fish species	: Catla, Rohu & mrigal
Stage of seed	: Fingerlings (3000)
No. of Demonstration/ Ponds	: 10
Area per unit	: 0.25 ha.
Time of seed releasing	: September 2019
Harvesting Time	: August 2020
Average production per unit	: 750 kg.



Economics {per unit (0.25ha.)}:

Cost of cultivation	: Rs. 26,050
Gross income	: Rs 75,000
Net profit	: Rs. 48,950
B:C ratio	: 2.87
Sale price	: Rs 100 per kg

