

Success Story- Income Enhancement of Ram Ujagir Chaudhary by Happy Seeder Machine

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Ram Ujagir Chaudhary, a farmer from village- Dhandhra, post- Kamsar, block- Itwa, tehsil- Domariyaganj, district- Siddharthnagar, owns 2.25 hectare land. In addition to farming, he has 3 milk producing buffaloes and 0.2 hectare pond for fish farming. His family comprises 6 members, all dependent on him. Siddharthnagar, a district of Uttar Pradesh comes under the region of Purvanchal in which wheat is important crop during the rabi season.



Earlier, Mr. Chaudhary sowed wheat with the help of Rotavator and cultivator which was costlier to him. Every season, after burning the crop residue he used to be tense and thought of a machine which could turn over the crop residue or cut them into tiny pieces and mix them up in the field. With this thought, one day Mr. Chaudhary reached to the nearest KVK, Sohna, Siddharthnagar and met Dr Pardeep Kumar Subject Matter Specialist Plant Protection and Dr. L. C. Verma, Senior Scientist and Head and discussed thoroughly about the issue of crop residues. Dr. Pardeep Kumar advised him to chop paddy crop residue with the help of paddy chopper Machine and subsequently use Happy seeder machine to sow the wheat and to eradicate the hectic job of burning the crop residue which in turn will increase the production and fertility of soil.

Scientists advised Mr. Chaudhary that he should accept services of KVK to enhance his agricultural income and productivity. After getting satisfied with advices, he decided to use Happy seeder machine on 0.40 hectare and traditional method on 1.10 hectare of land to sow wheat. With the help of happy seeder, Mr. Chaudhary sowed wheat on 0.40 hectare area during 2019-20 session since 9 November 2019 at almost half the expense of traditional

method. Mr. Chaudhary is delighted with sowed wheat and it's final produce and gives credit to KVK for available techniques analogous to crop residue management project.

Following benefits of Happy seeder machine were realized by Mr. Ram Ujagir Chaudhary-

- With the help of Happy seeder and Mulcher machine, quantity of organic matter increased.
- With this technique of sowing wheat, less irrigation was required.
- In-situ crop residue management technique reduced the amount of chemical fertilizers use in the soil.
- Wheat sown by Happy seeder increased quantity of active tillers in the wheat.
- Wheat crop fall was reduced to minimal by using Happy seeder in comparison to broadcasting methods.

Information on Wheat Front Line Demonstration (FLD) 2019-20

- Name of the FLD centre : KVK Siddharthnagar
- Name of the farmer : Ram Ujagir Chaudhri ,
- Village: Dhandhra District: Siddharthnagar State: UP
- Category: OBC Gender: Male
- Operational land holding of the farmer (i.e. total land cultivated by farmer) : 2.25 ha
- Area under Wheat crop: 1.50 ha
- Distance of the FLD site from the coordinating center: 7.00 Km
- Dates of visits to FLD site: 09.11.19, 12.12.19 and 18.2.20
- Type of demonstration: Wheat variety (*Triticum aestivum* L.) sown by Happy Seeder

9. Varieties in FLD and check plot, area covered under each variety and yield

FLD plot				Check plot			
Name of variety	Area sown (ha)	Grain Yield (q/ha)	Straw Yield (q/ha)	Name of variety	Area sown (ha)	Grain Yield (q/ha)	Straw Yield (q/ha)
DBW- 187	0.40	43.40	40.0	HD-2967	2.0	39.5	37.0

Note: Yield was affected by unseasonal cyclonic heavy rain and hail storm at flowering and harvesting time.

10. Popular wheat varieties of the area (name) : HD-2967
 Average wheat yield of the village : 40.50 q/ha

11. Particulars of the FLD and Check plots

Particulars	FLD plot	Check plot
Date of sowing	09-11-2019	09-11-2019
Seed Rate used (kg/ha)	100	120
Sowing method	Sowing with Happy Seeder	Broadcast
Duration of the variety (in days)	130	135
Name of previous crop	Paddy	Paddy
Type of soil	Sandy Loam	Sandy Loam
Fertility status (Low / Medium / High)	Medium	Medium
Fertilizer used (N:P:K in kg/ha)	N: 120 P:60 K: 40 Others:	N: 120 P: 60 K: 40 Others:
Irrigation type (Tube well/Canal/Well/Tank irrigated)	Tube well	Tube well
Number of irrigations	One (Timely rain fall)	One
Harvesting method used (Combine / Manual)	Combine harvesting	Combine harvesting
Threshing method (Thresher/Bullock/Manual /Other)	Combine	Combine
Price of grain (Rs./quintal)	1925/ q.	1925/q.
Price of straw (Rs./quintal)	500/-q.	500/-q.

12. Cost of cultivation (Rupees / hectare)

Operations	FLD plot	Check plot	Remarks
1. Land preparation	2500	5000	Hire tractor
2. Seed treatment & sowing	4000	3500	
3. Application of manures	0.0		
4. Fertilizer application	6000	8000	

5. Bio-Fertilizer application	0.0		
6. Plant protection chemicals	0.0		
a. Weedicides+ Application	4000	4000	Sulphosulfuran
b. Insecticides	0.0		
c. Fungicides	0.0		
7. Irrigation + labour cost	3000	4700	
8. Manual weeding	0.0		
9. Harvesting	00		
a. Manual harvesting	0.0		
b. Combine harvester	3300	3300	
10. Watch & ward	0.0		
11. Threshing & winnowing	0.0		
12. Drying, Weighing, Bagging	800	800	
13. Transport to house / Mandi	1000	1000	
14. Any other Straw making charge	400	400	
15. Total Cost	25000	30700.0	
16. Gross Income	Grain-Rs. 83545.0 Straw- Rs.20000.0 Rs. 103545.0	Rs.76037.5 Rs. 18500.0 Rs. 94537.5	Differences net income per hectare (Rs.)
17. Net Income (Rs.)	78545.0	63837.5	14707.5

13. Feedback of the farmer (Please do ✓ mark)

Particulars	Feedback
a. Benefits of the demonstrated improved/new variety in comparison to old/check variety	✓ Beneficial / Not beneficial / Can't say
b. Benefits of the other demonstrated technologies (Please mention the technology)	✓ Beneficial / Not beneficial / Can't say

c. Response of neighboring farmers to the demonstrated technology	✓ Positive / Negative / No response
d. Level of satisfaction with yield record.	✓ Medium
e. Will the farmer adopt the demonstrated technologies if input support is discontinued	✓ Yes
f. Level of satisfaction with the support provided under the FLD programme.	✓ Satisfactory

14. Agro-Economical, Technical Constraints / Problems Limiting Wheat yields in the area/region

(Please tick ✓ mark the constraints applicable only to your area / region, as Most Serious (MS) or Serious (S) or Not Serious (NS), as the case may be).

S.N.	Constraint/Problem	M	S	NS	S.N	Constraint/Problem	MS	S	NS
	I. Diseases					VI. Inputs			
i.	Yellow Rust				i	High cost of inputs	✓		
ii	Loose smut			✓	ii	Poor quality seeds		✓	
iii	Powdery Mildew			✓	iii	Non-availability of seed of newly released variety		✓	
iv	Karnal Bunt			✓	iv	Poor quality fertilizers			
	II. Insects-Pests				v	Non-availability of Nitrogen/Phosphorus fertilizer at desired time			✓
I	Aphid			✓	vi	Poor quality herbicides/pesticides			
ii	Termite			✓	vii	Lack of irrigation facilities			✓
iii	Stem borer			✓	viii	Non-availability of diesel			✓
iv	Leaf folder			✓		VII. Technological			
					i	Late sowing			✓
	III. Weed Infestation				ii	Poor/Low plant population		✓	

i	Resistance against herbicide			✓	iii	Zn deficiency		✓	
ii	Lack of knowledge about appropriate dose and method of herbicide application among the farmers		✓		iv	Poor soil fertility (NPK)		✓	
iii	<i>Phalaris minor</i> (Kanki/Mandusi/Ge hoon ka mama)	✓			v	Low organic matter	✓		
iv	<i>Cyprus rotundus</i> (Motha)			✓	vi	Low micro-nutrients	✓		
v	<i>Chenopodium album</i> (Bathua)			✓	vii	Lodging			✓
vi	<i>Avena ludoviciana</i> (Jangali Jai)			✓	viii	Lack of land leveling		✓	
vii	<i>Malva parviflora</i> (Chughra)			✓	ix	Imbalanced use of fertilizer		✓	
viii	<i>Convolvulus arvensis</i> (Hirankhuri)			✓	x	Faulty irrigation methods			✓
ix	<i>Rumex dentatus</i> (Jangali Palak)			✓	xi	Lack of facility of canal irrigation water		✓	
x	<i>Anagalis arvensis</i> (Krishnanil)			✓	xii	Poor drainage facilities	✓		
xi	<i>Argemone maxicana</i> (Satyanashi)			✓	xiii	Faulty tillage methods	✓		
					xiv	Non availability of farm machinery	✓		

	IV. Abiotic Stress				VIII. Extension		✓	
i	Water stress		✓		i Lack of knowledge among farmers about recent technologies	✓		
ii	Poor quality irrigation water			✓	ii Poor information delivery by state extension machinery	✓		
iii	Water logging	✓			iii Poor participation in exposure visits arranged by various departments	✓		✓
iv	Untimely rain/ Erratic rainfall/ Weather vagaries	✓			iv Poor participation in kisan melas/ field day/kisan goshti/ training		✓	
v	High Temperature at maturity		✓		v Lack of extension literature		✓	
vi	Declining water table		✓		vi Lack of training facility			✓
vii	Temperature fluctuation during crop growth		✓		IX. Others			
					i Non-availability of electricity			✓
	V. Socio-economic				ii Erratic power supply			✓
i	Non availability of labour	✓			iii Low price of wheat			✓
ii	Non availability of crop loan			✓	iv Problem in marketing of wheat	✓		
iii	Higher custom hiring rate of land leveling, field preparation, sowing	✓			v Birds		✓	

	& harvesting							
iv	Small land holdings	✓			vi	Rodents		✓

15. Date of holding the Farmers' Day: 14 May, 2020

16. Photographs



Wheat Sowing by Happy Seeder



Use of Mulcher



Wheat sown by Happy Seeder



Wheat sown by broadcasting method

