

Phase 1 (2023-24)

KRISHI UDAAN

ENTRA-FARMER

Standard operating procedure

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Entra-Farmer

Brief Summaries of the Report

Agriculture is the backbone of Indian economy. Livelihoods of nearly 60% to 65% of people in our country depends on agriculture. Farming is not an easy job. A lot of physical and mental work is involved in this activity.

Spraying is one of the biggest problems farmers face in Farming, this ranges from Lack of Labours to inefficiency in spraying causing loss to the farmers. We at 'Krishi Udaan' aim towards the betterment of farmers by tapping entrepreneurs in Agriculture and providing them with the Top notch technology in farming.

the report is focused on providing a detailed overview of this Entrepreneurship journey of a farmer, whom Krishi Udaan likes to call, Entra-Farmer.

Farmers have always taken care of people by working hard days and nights. Farming is one of the toughest jobs in the world. It could also be considered as a selfless deed. Now the time has come for us to take care of this community by providing them solutions to avoid adverse effects on their health. Remember, farmers are the asset to any country. 'Krishi Udaan' aims to protect these assets by taking care of their healths and making their lives a little more easy.

Pain Points



Climatic Conditions

Climatic Conditions

Climate change is one of the major problems in today's world. Extreme climates like hot summers and chilling winters, along with extreme rainfalls result into imbalanced farming, which affects the cultivation. The conventional spraying method could be less efficient because of these climate change factors.



Health Issues

Health Issues

Health issues have always been prominent in the spraying industry. Farmers suffer from innumerable health issues because of the manual activity of spraying pesticides and chemicals. Diarrhoea, vomiting, dizziness, irritation, nausea, eye infections are some of the immediate effects of conventional spraying. It could also result in long term effects like chest pain, memory loss, concentration difficulties, blindness, back pain.

Pain Points

High Investment

inefficiency in spraying, obligates the farmers to spray more regularly ,this increases the cost of farming. In recent times Government has also decided to lift off the subsidies which they have been providing on fertilisers. This will cause rise in Prices of fertilisers and other chemicals and hence rise in investment for farming and therefore, less profit for farmers.



High Investment

Irregular Spraying

Irregularity in spraying is the biggest issue farmers face when it comes to spraying any kind of fertiliser or chemicals. This irregularity is caused due to human error in spraying hence reducing it on a large scale is pretty difficult. Few examples of such irregular spraying are

- over spraying
- under spraying
- respraying in the same row.

This irregularity cause an average of 25-30% of wastage in Farming.



Irregular Spraying

Franchise Expenses



8.5L

Drone Cost



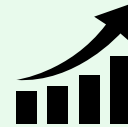
2L

Software



1.5L

Cost of hiring



5L

Upgrade Cost



2.5L

Research



1.5L

Marketing



2L

Business
Development



1.8L

Service and
Repair

Extra Expense

Spraying and Flight Efficiency, Chemical composition, Training for new upgradations.

Customer Appropriate Content, Event Organising, Banner accessories and online Marketing

Business analyst, Sales Execution, Business Scaling cost.

Repair and replacement cost, annual maintenance cost, traveling cost, expense of extra component.



ENTRA-FARMER

Introduction

with the concept of "Entrepreneurship in Farming" , Krishi Udaan aims to promote business in the spraying industry.

Spraying is a necessity in Farming. Tasks such as providing nutrients, fertilising the crops, demolishing pests and insects, even weed control is executed through spraying.

We have already gone through the Pain points farmers face on daily basis. An Entrepreneur has the quality of identifying such opportunity. Krishi Udaan's goal is to provide all the necessary services to such Entrepreneurs.

Now we are going to go through the Standard operating procedure of Krishi Udaan's Entra-Farmer Model as well as the Cash Flow management for the franchises.

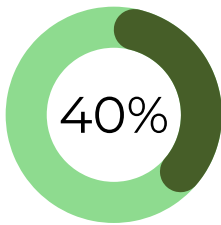
What Krishi Udaan Provides? (Standard)

- ✔ 10 Liter or 16 Liter Drone.
- ✔ Technical Support
- ✔ Sales Training
- ✔ Marketing (Material and campaign)
- ✔ Repair and Servicing
- ✔ Monitoring System
- ✔ Drone Upgradation
- ✔ Research and Development
- ✔ Business Development
- ✔ Pilot Training
- ✔ Traveling kit/Box for Bike

Franchise Cost

The Drone is Capable of spraying more than 30 acres in a day, this complies that commercialization of this Spraying process is Sophisticated and Scalable. Hence Providing a Franchise model to achieve the stability for the Supply and Demand in this industry is a necessity. The franchise models works on profit sharing basis from it's revenue.

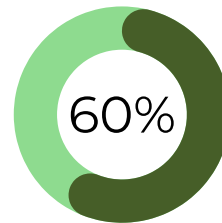
Model E



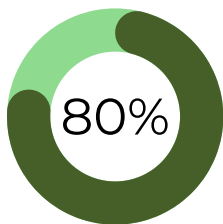
The Profit % of Entra farmer for **Deposit of 2 Lakh** is 40% of the total Profit earned. Most of the business development work and Standard Provision will be done by Krishi Udaan, except Operation of Spraying. Pilot license will be remunerate by the entra farmer.

Model M

The Profit % of Entra farmer for **Deposit of 4 Lakh** is 60% of the total Profit earned. Krishi Udaan only Provides the Marketing content, training and Tech support. All else services from the Standard Provision will be on the part of Entra-Farmer. Where as the Pilot License will be provided by Krishi Udaan.



Model H



The Entra Farmer receives 80% of the entire profit with a **deposit of 6 Lakh**. Krishi Udaan only Provides tech support and Pilot License. Everything else mentioned in the Standard Provision List will have to be arranged by the Entra-Farmer.

Standard operating procedure

Part One



Cash Flow

Part Two

NO. OF BATTERIES PROVIDED	_____	5
ACRES SPRAYED PER CHARGE	_____	2
AVG. AREA SPRAYED PER DAY	_____	20
WORKING DAYS	_____	20
AVG. COST PER ACRE	_____	₹ 600

Cash inflows	Status	Total
Monthly Revenue	income	+ 2,40,000/-
Battery Charging	expense	- 1,600/-
Travelling	expence	- 4,000/-
Pilot	Incentive	- 16,000/-
2 Assistants	incentive	- 20,000/-
Repair*	Saving	18,000/-
Upgrade*	Saving	18,000/-
Profit	-----	1,62,400/-

(₹ 40/acre incentive for pilot and ₹ 25/acre for Operator)

Terms and Conditions

Ownership

- Data collected from flights of drone will wholly belong to Krishi Udaan.
- Drone ownership belongs to Krishi Udaan unless the drone is purchased.
- The Entra-Farmer can use the Drone for personal use, such as -
 1. Spraying on in own Farm (which will be subtracted from their profit cut)
 2. Flying Drone For Promotional purpose.
 3. Demonstration for other Farmers.
- All the Drone Flight Data will be uploaded to the cloud for monitoring purpose.
- Krishi Udaan Allows Maximum of 3 Acres of Spray per day for Demonstration/ Promotion purpose.
- Once party comes in agreement with Krishi Udaan, They will not able to buy drones from any other company.
- After completion of agreement period of 3 years Entra farmer has following choices
 1. Continue as entra farmer with original plan
 2. Carry out drone from agreement on his ownership and deposit will belong to Krishi Udaan

Drone

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- Krishi Udaan will Allot 10L or 16L drone depending on the demand in Entra-Farmer's Region. This Demand is Specified on the following basis,
 1. More than 60 Customers Enquire for Spraying service within a radius of 15 villages before the delivery of drone.
 2. Demand of more than 200 Acre of Land to be sprayed is received before the delivery of the Drone.
 3. Average Customer to village ratio is 10:1.
 4. Entra Farmer Has 25+ Regular Customers with Last 3 Sprays done through Krishi Udaan Drone.
 - Physical delivery of drone will be after 30 days of signing contract .
 - Party can upgrade from original 40:60 model to 60 :40 or 80:20 on their own will, but will be applicable for additional deposit costs

Operation

- Area of spraying business for intra farmer will be within specified boundary decided by Krishi Udaan and all rights regarding fencing of boundary will be reserved under Krishi Udaan.
- All rights regarding data , flights and ownership of drone will be reserved under Krishi Udaan.
- The projected calculations in this particular report are based on these following Conditions,
 - 1.Entra-Farmer Sprays at least 20 Acres per day
 2. Entra- Farmer operates for 20 Working day a month.
- Krishi Udaan will Provide 5 Batteries with the Delivered Drones But Entra-farmers can request for more Batteries if the demand for the spraying service is high.

Revenue

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- revenue sharing will be as per given below
 - out of every total profit, 5% maintenance lock, 5% upgrade lock will be saved in the joint account of Entra farmer and krishi Udaan
 - In Case, the repair cost exceeds The saved amount, the expense will be bared by Krishi udaan and later deducted from the future saved amounts.
 - the Net Profit will be shared in the ratio of 60:40 , 40:60 or 80:20 Depending on the Selected model.
 - For downgrading or upgrading in business model, its mandatory for intra-farmer to take permission of Krishi Udaan

Guideline

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- Drone flights will be as per guidelines of DGCA and by RPTO approved drone pilot Rules and Regulations and within green zone area
 - Entra farmers has right to terminate agreement against following penalties

Duration	Pentalty
Within 0 -12 Months	50,000/-
Within 13 -24 Months	30,000/-
Within 25 -36 Months	15,000/-

- Any tampering within the drone will not be tolerated.
- Krishi udaan has the right to terminate the Entra-Farmer Contract anytime if any of the terms are not followed.

FAQ

How much area we can spray in one charge?

- Li-ion and Li-po, both kind of batteries are available for the Entrafarmers. Each battery have their own merits and de-merits. but about 3 Acres of land can be sprayed in optimum conditions in 25 min of full charge.

Which crops can be sprayed using drones?

- All types of crops can be sprayed using drone excluding strawberries since they have extremely delicate stems.

Suggested height of the drone while flying?

- The height range from 1 meters to 5 meters depending on the crop type and crop age. This will be taught to the pilot during drone pilot training.

What chemical composition is supposed to be used for spraying for best results ?

- Krishi Udaan follows the Government approved SOP for chemical utilisation in drone for best efficiency using drones. But vaguely speaking it is nearly similar to the quantity of chemicals used for 1 acre of calculation.

What is the span of spray and does it affect the neighbouring crops?

- The span Depends on type of nozzle used, but the range is anything between 2-5 meter, and a boundary can be set using the auto-pilot mode to avoid such catastrophe.

What type of chemicals can be sprayed?

- Every type of Chemicals ranging from Liquids to Powder or even seeds. can be sprayed. Krishi udaan provides range of tanks to perform these tasks making our Drone utilisable in every season.