

**World Bank Project (2007-16)**

# **‘e-Velanmai’ Approach of Extension through Android app in Tamil Nadu**

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# EXTENSION ISSUE

- ✎ Appropriate scientific advice is not reaching farming community effectively in a timely manner.
- ✎ How best the available extension manpower can be used effectively & efficiently ?



# CONCEPT OF e-VELANMAI (e-Agriculture)

- ✚ It is a combination of personal & ICT based, demand driven, participatory and sustainable extension approach to provide appropriate and timely agro advisory services by Agri. experts to the farmers through Field Extension Coordinator on need basis.

# Action research process

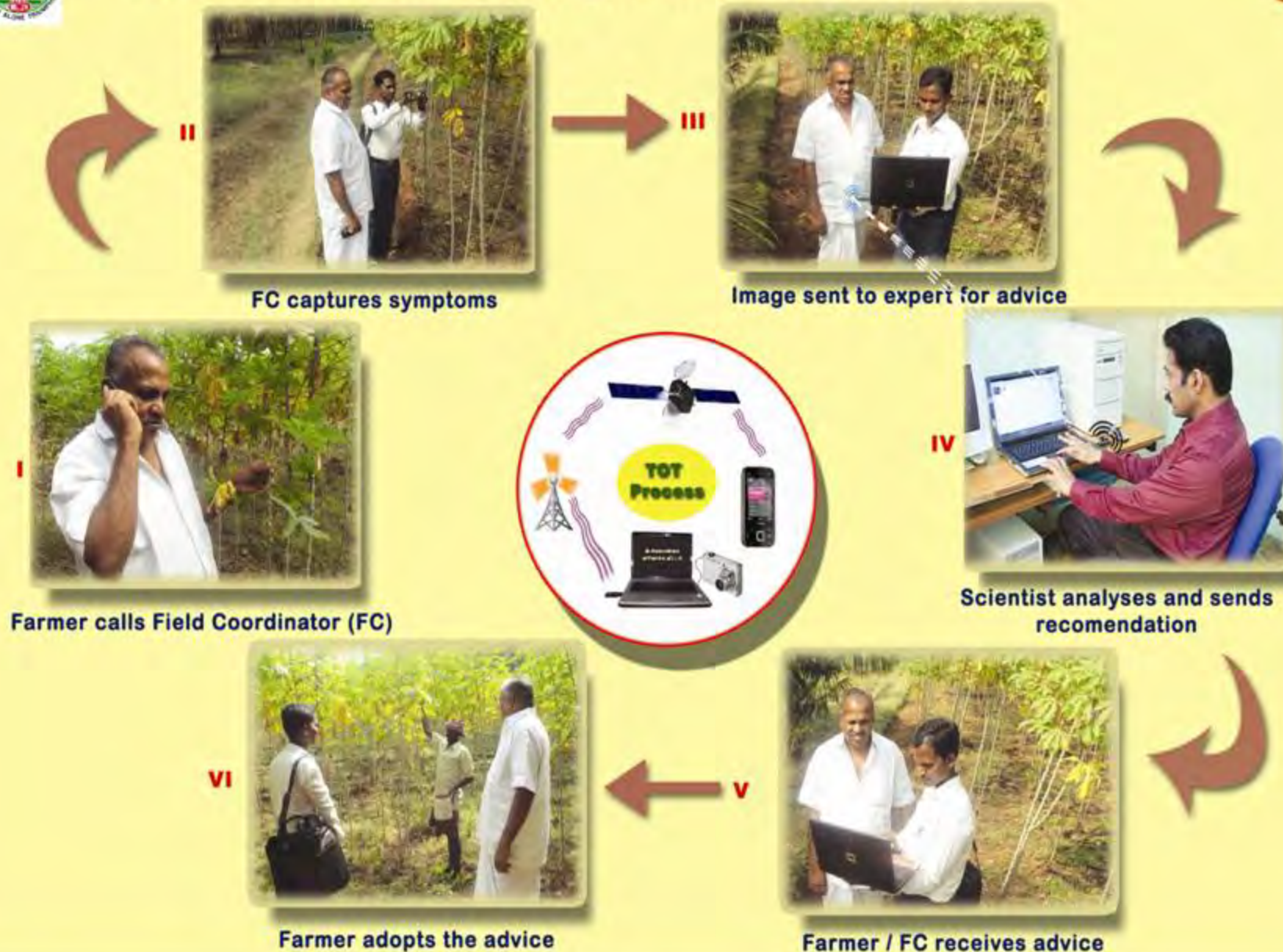
- **Pilot testing** : 2007 - 2008 (Public Model)  
2008 - 2011 (Paid Model)
- **Sub Basins** : Palar, Aliyar and Varaghanadhi
- **Upscaling** : 2011 – 2012 (19 sub basins)  
2012 – 2013 (26 sub basins)
- **Adoption** : 2015-16 (100 Blocks) / 13 districts

# **Technology transfer process in e-Velanmai (2007-2013)**



# TN - IAMWARM PROJECT, CARDS, TNAU

## e-velanmai - ICT based Agricultural Extension Model



## Membership fees based on farm size

Membership money / Farmer		
Farm size	2007 -2011	2011 - 2013
< 5 ac	Rs.50	Rs.50
5 – 10 ac	Rs.200	Rs.100
> 10 ac	Rs.300	Rs.150





# e-Velanmai Membership Card

தேதி	வேளாண் இடர்பாடுகள்	ஆலோசனைகள்

ஒருங்கிணைப்பாளர் தொலைபேசி :

**இ - வேளாண்மை விரிவாக்கத் திட்டம்**



**நீர்வள நிலவளத் திட்டம்**

(TNAU - TN - IAMWARM PROJECT)



வேளாண்மை மற்றும் ஊரக மேம்பாட்டு ஆய்வு மையம்  
தமிழ்நாடு வேளாண்மைப் பல்கலைக்கழகம் கோயமுத்தூர் 641 003.

மின் அஞ்சல் : evelanmai@gmail.com

**இ - வேளாண்மை விவசாயி உறுப்பினர் அட்டை**

**உ எண் :**

**தேதி :**

விவசாயி பெயர் :

தகப்பனார்/கணவர் :

முகவரி :

தொலைபேசி எண் :

உறுப்பினர் தொகை : ரூ.

உபவழி நிலம் :

பாசன சபை :

சாகுபடி பயிர்கள் :

பரப்பளவு (ஏக்கர்) :

பாசன சபைத்தலைவர்

**முனைவர் ச. கார்த்திகேயன்**  
இ - வேளாண்மைத் திட்டத் தலைவர்





**தொடக்க வேளாண்மை  
கூட்டுறவு கடன் சங்கம் லிட்.,  
செயிப்பு கணக்கு  
பாஸ் புத்தகம்**

பெயர் : சீனிவாசன் பழனிவேல் கண்ணன்  
19-08-2023 12.08.2023  
செயிப்பு கணக்கு  
பாஸ் புத்தகம்

# Farmers availing e-Velanmai services

Year	No. of farmers enrolled									Total No. of members enrolled		
	<5 ac			5-10 ac			>10 ac			Male	Female	TOTAL
	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL			
2007-11	913	102	1015	81	10	91	72	3	75	1066	115	1181
2011-13	6517	877	7454	1733	83	1816	54	1	55	8365	961	9326
<b>Total</b>	7490	979	<b>8469</b>	1814	93	<b>1907</b>	126	4	<b>130</b>	9431	1076	<b>10507</b>
<b>%</b>	71.29	9.32	<b>80.60</b>	17.26	0.89	<b>18.15</b>	1.20	0.04	<b>1.24</b>	89.76	10.24	<b>100.00</b>

# Membership amount collected

Year	Amount collected (Rs.)									Total Amount Deposited (Rs.)		
	<5 ac			5-10 ac			>10 ac			Male	Female	TOTAL
	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL			
2007-11	45650	5100	50750	16200	2000	18200	21600	900	22500	83450	8000	91450
2011-13	329250	44200	373450	173300	8300	181600	8050	150	8200	510600	52650	563250
Total	374900	49300	424200	189500	10300	199800	29650	1050	30700	594050	60650	654700
%	57.26	7.53	64.79	28.94	1.57	30.52	4.53	0.16	4.69	90.74	9.26	100.00

# Crop status image and advices

## Maize - Cob borer



*Helicoverpa armigera*

### Symptom

Feeds on silk and developing grains

### Recommendation

Acephate 250 gm / ac

# Extension advices

Name of the WUA / Social Group	Subject-wise No. of advices given								Total No. of advices given		Grand Total
	Pathology	Entomology	Physiology	Soil science	Agronomy		Marketing	Others			
	PB	PB	PB	DB	PB	DB	DB	DB	PB	DB	
Total	5643	5343	1577	496	764	4117	1301	1028	14985	5274	20259
%	27.85	26.37	7.78	2.49	3.77	20.32	6.42	5.07	73.97	26.03	100

**Average turn around time for TOT : 15 min. to 2 hrs**




# Adoption status


Sub basin	Number of queries	Number of advices adopted	*Success rate (%)
2007-2011	1474	1385	93.96
2011-2013	18785	15757	89.67
<b>Total</b>	<b>20259</b>	<b>17142</b>	<b>91.81</b>

Rate of adoption    84.61 %

\*(Success rate due to the adoption of advices among the adopted farmers)



Name of the farmer / Village	: Mr.V.Dharmasekaran Thaligaividuthi village	
Crop	: Coconut	
Crop area	: 4.5 ac	
Problem identified	: Button shedding in coconut	
Advice given	: Root feeding of TNAU coconut tonic @ one packet (200 ml) per tree	
Benefits perceived	: Additional income of Rs.75/tree	

Name of the farmer / Village	: Mr.G.Rukumani, Nagal village	
Crop	: Jasmine	
Crop area	: 0.50 ac	
Problem identified	: Bud worm larva pest	
Advice given	: Profenofos 50 EC @ 2 ml/lit	
Benefit perceived	: 740 kg added yield was realised	

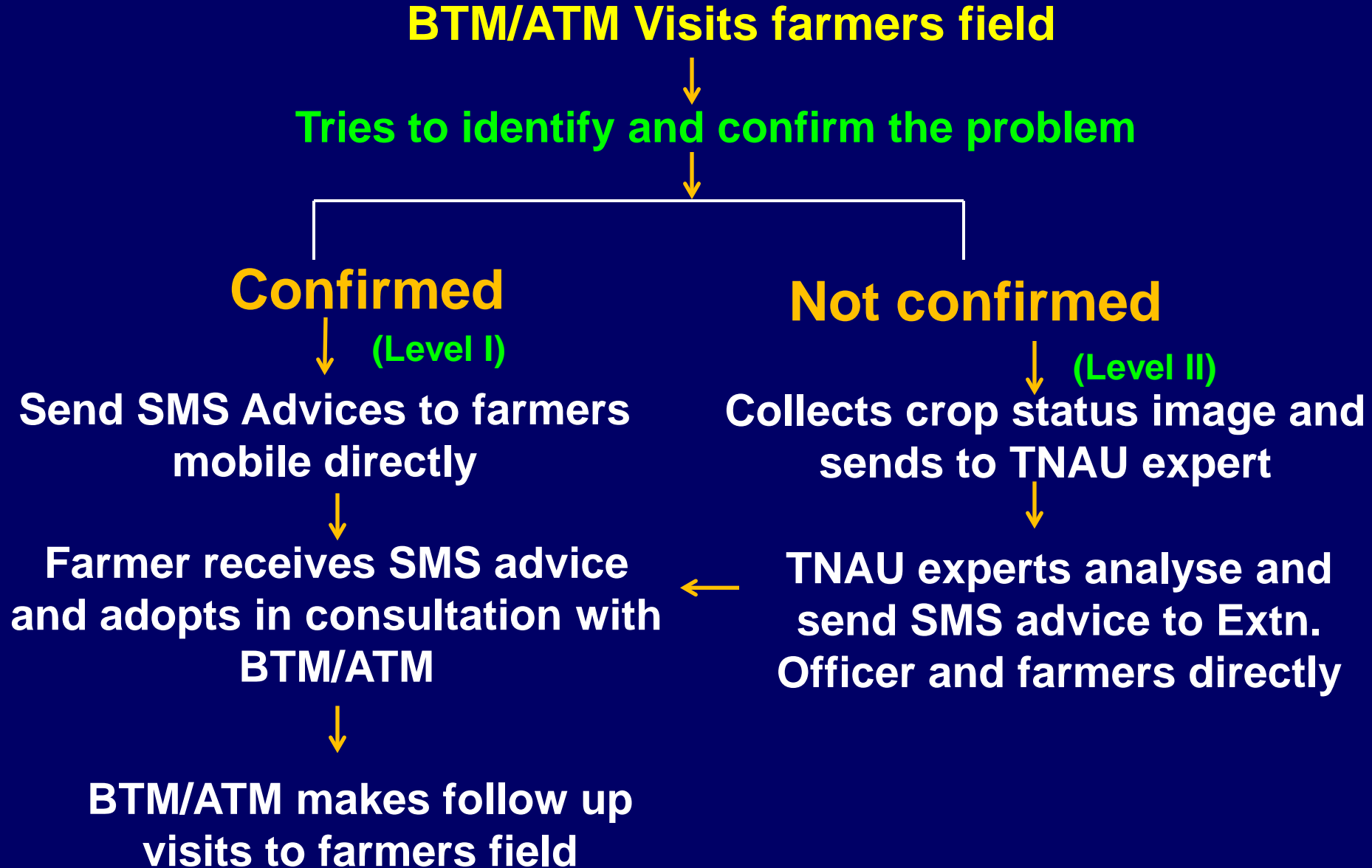
## LESSONS LEARNT

1. Appropriate farm specific and timely agricultural extension advices can be offered by the agricultural experts to solve the **farmer's problems based on the crop status images** sent from the field using ICT tools.
2. Farmers will come **forward to pay a nominal fee** based on their farm size for accessing quality and timely extension advices.
3. The existing manpower (**BTM/ATM**) of ATMA can be involved effectively and efficiently to transfer agril. advices to farmers through e-Velanmai.
4. Combination of **Personal + ICT based** approach of extension is effective and timely.

# Adoption of e-Velanmai

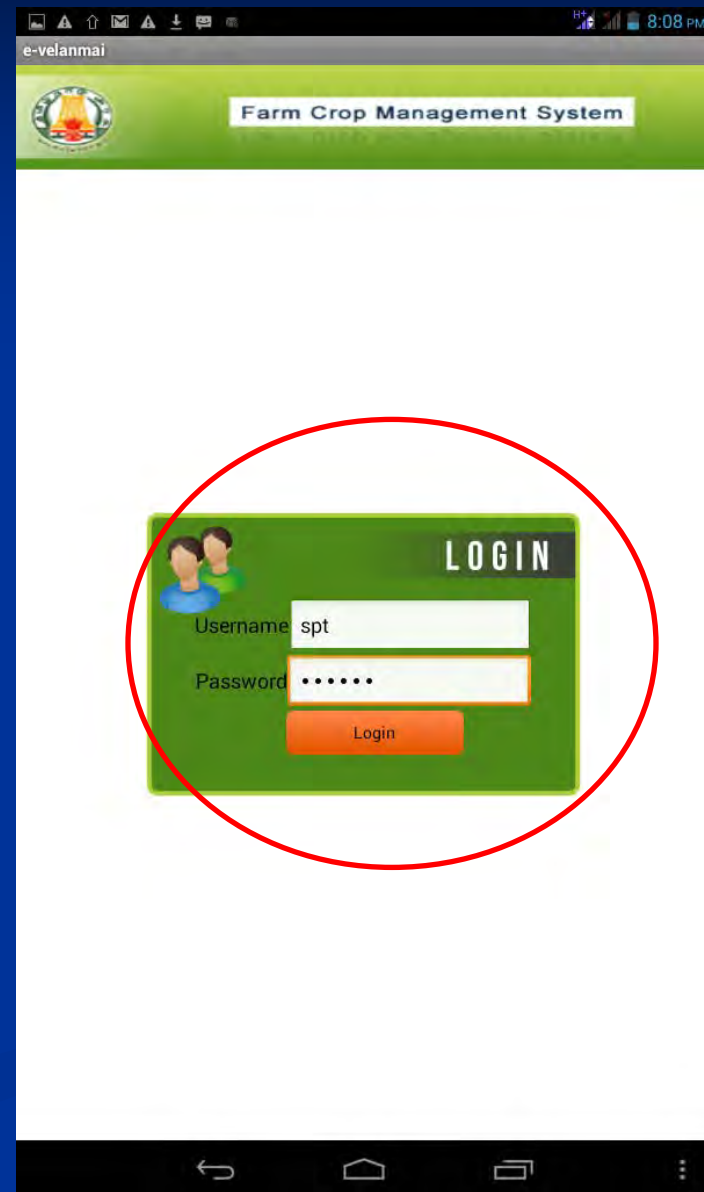
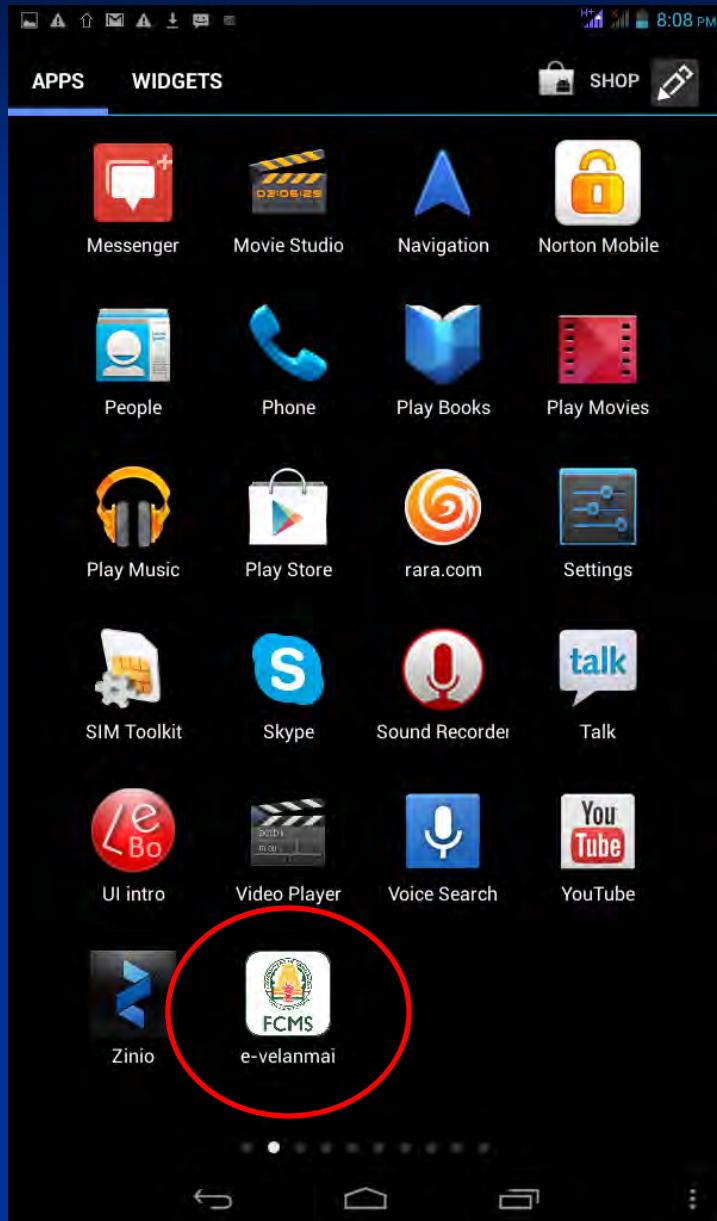
- GoTN has approved the 'e-Velanmai' extension approach for implementation in 100 blocks of Tamil Nadu through the extension officials (BTM/ATM) of the Department of Agriculture.
- G.O.4(D). No. 11 Dt.15.05.2014 Agriculture (WD2) Department

# Technology Transfer through Android app (2015-16)



**HOW TO DO e-Velanmai  
using Android app ?**

1. Click the e-Velanmai app
2. Enter the User Name and Password





### 3. Select the target village in the Block

e-velanmai

**Farm Crop Management System**

Home Logout

District  
Coimbatore

Block  
Sulthanpettai

Village  
Senjeriputhur

Farmer Name  
Farmer Name

Soyabean

mobile Number

☐ Pest/Disease Monitoring

Continue

Senjeriputhur

Kallapalayam

Thalakkarai

Kammalapatti

Vadambacheri

J.Krishnapuram

Jallipatti

Pappampatti

Bogampatti

Poorandampalayam

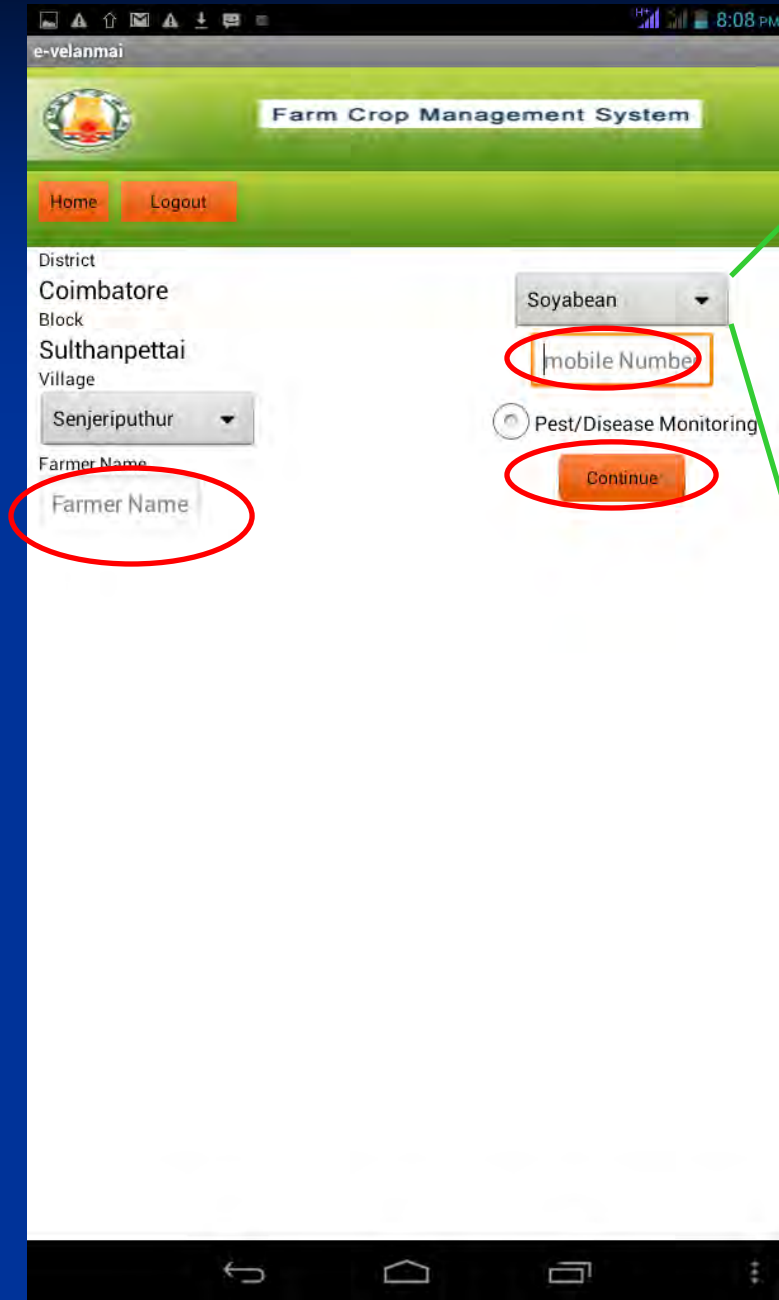
Edayarpalayam

S.Ayyampalayam

Selakkarichal

Appanaickenpatti

#### 4. Select the crop then enter the farmer name and mobile number



The screenshot shows the 'Farm Crop Management System' interface. On the left, there are dropdown menus for 'District' (Coimbatore), 'Block' (Sulthanpettai), and 'Village' (Senjeriputhur). Below these is a 'Farmer Name' input field, which is circled in red. On the right, there is a 'Soyabean' dropdown menu, a 'mobile Number' input field (circled in red), and a 'Continue' button (circled in red). A green arrow points from the 'Continue' button to the next screenshot.

e-velanmai

**Farm Crop Management System**

Home Logout

District  
Coimbatore

Block  
Sulthanpettai

Village  
Senjeriputhur

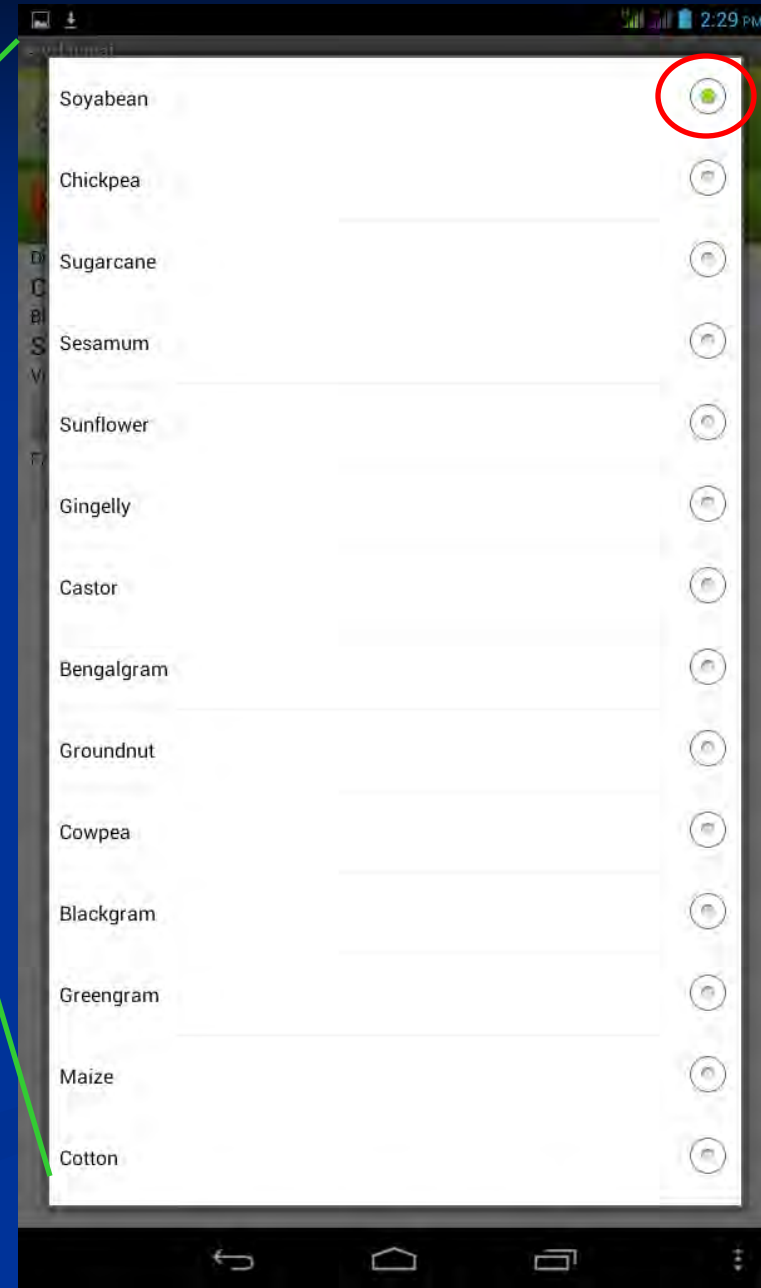
Farmer Name  
Farmer Name

Soyabean

mobile Number

Pest/Disease Monitoring

Continue



The screenshot shows a list of crops with a red circle around the 'Soyabean' option at the top. The list includes Soyabean, Chickpea, Sugarcane, Sesamum, Sunflower, Gingelly, Castor, Bengalgram, Groundnut, Cowpea, Blackgram, Greengram, Maize, and Cotton.

Soyabean

Chickpea

Sugarcane

Sesamum

Sunflower

Gingelly

Castor

Bengalgram

Groundnut

Cowpea

Blackgram

Greengram

Maize

Cotton

## 5. Identify pest/disease. Advice pops up and click Send SMS – Level I

e-velanmai

Farm Crop Management System

Pest / Disease Monitoring

☒ PEST ☐ DISEASE ☐ OTHERS

Cause:

ETL ControlMessage ☒ Yes ☐ No

Message

Photo

Back Send Sms Expert Advice

e-velanmai

Farm Crop Management System

Pest / Disease Monitoring

☒ PEST ☐ DISEASE ☐ OTHERS

Cause:

ETL ControlMessage ☒ Yes ☐ No

Message

Photo

Back Send Sms Expert Advice

## 6. To send SMS in Tamil, click 'MORE'

AGRISNET :: Farm Crop Management S...

tnagrisnet.tn.gov.in/fcms/sms/tamil\_view

Search

Government of Tamil Nadu  
TRUTH ALONE TRIUMPHS

Farm Crop Management System

Beneficiary

Online Billing  
தமிழ் English

Aadhar FARMER DETAIL CROP PLAN FIELD DATA BENEFICIARY REPORT **MORE**

e-Valanmai APK Download

LAB  
FOOD GRAIN MISSION  
Tanseda  
AAO Schedule Visit  
Scheme Entry  
Seed Farm Entry **New**  
Date Of Sowing Entry  
Complaint  
Contact Entry  
Photos  
Redgram Entry  
Fallow  
Sms  
**Tamil Sms**  
Audit & Seed  
HELP  
LOGOUT

Transferring data from tnagrisnet.tn.gov.in...

08:39  
18-07-2015



## 7. Enter the advice in transliterated version and send SMS

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/sms/tamil\_view

Truth Alone Triumphs

Aadhar FARMER DETAIL CROP PLAN FIELD DATA BENEFICIARY REPORT MORE

### Tamil SMS

Mobile Number: 9597000401

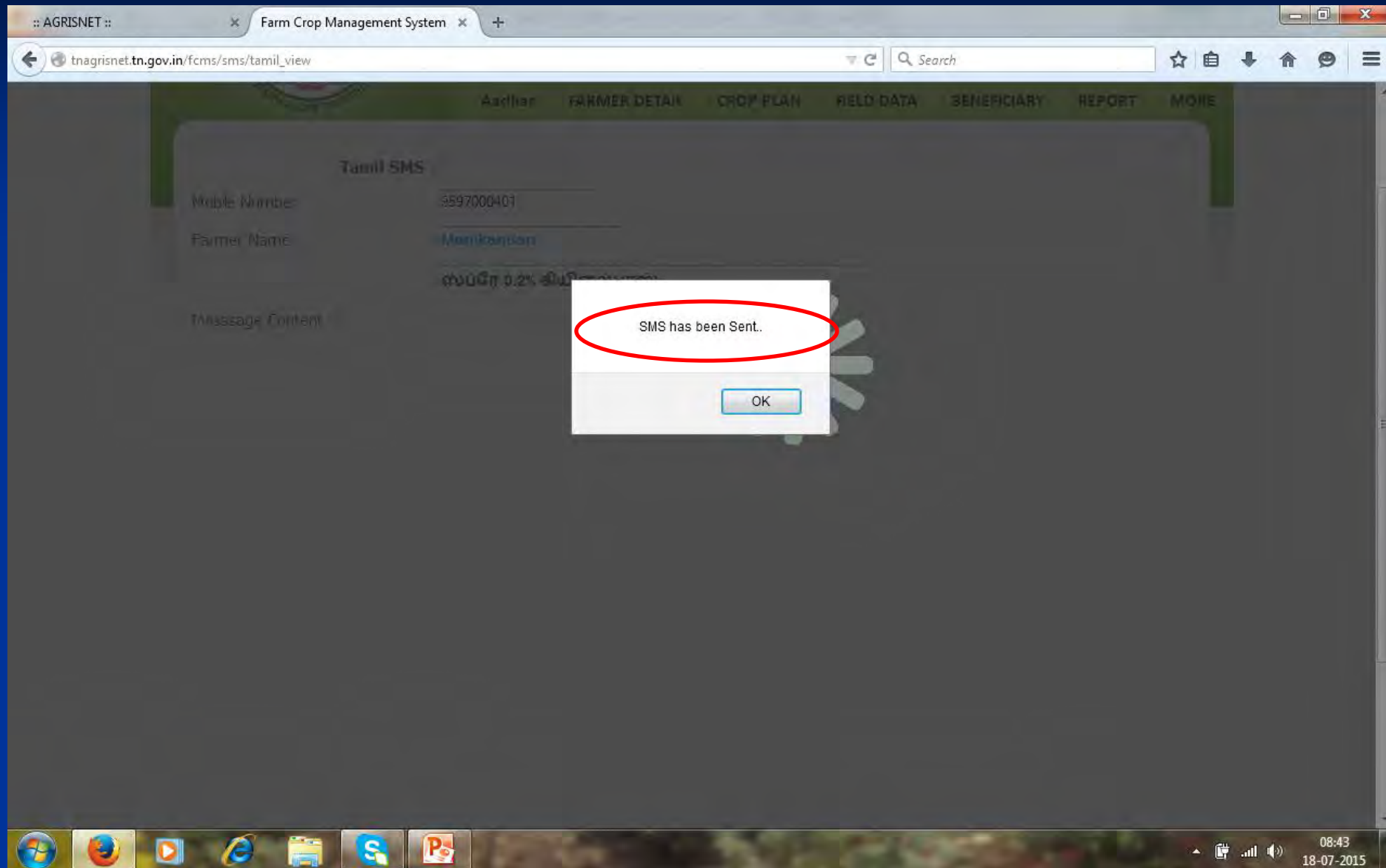
Farmer Name: Manikandan

Message Content: ஸ்ப்ரே 0.2% கியினல்பாஸ்

Send SMS

08:42 18-07-2015

# Confirmation message will be displayed





## 8. 'Logout' to end the process

The screenshot displays the AGRISNET Farm Crop Management System web application. The browser window shows the URL `tnagrisnet.tn.gov.in/fcms/sms/tamil_view`. The application has a green header with the text "TRUTH ALONE TRIUMPHS" and a navigation menu with the following items: Aadhar, FARMER DETAIL, CROP PLAN, FIELD DATA, BENEFICIARY, REPORT, and MORE. The MORE menu is expanded, showing a list of options: LAB, FOOD GRAIN MISSION, Seed Farm Entry (with "New" in red), Date Of Sowing Entry, Complaint, Redgram Entry, Tanseda, AAO Schedule Visit, Scheme Entry, Fallow, SMS Entry, TAMIL SMS, Contact, Audit & Seed, HELP, and LOGOUT. The LOGOUT option is highlighted with a red circle. The Windows taskbar at the bottom shows the time as 08:44 on 18-07-2015.

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/sms/tamil\_view

TRUTH ALONE TRIUMPHS

Aadhar FARMER DETAIL CROP PLAN FIELD DATA BENEFICIARY REPORT MORE

LAB  
FOOD GRAIN MISSION  
Seed Farm Entry **New**  
Date Of Sowing Entry  
Complaint  
Redgram Entry  
Tanseda  
AAO Schedule Visit  
Scheme Entry  
Fallow  
SMS Entry  
TAMIL SMS  
Contact  
Audit & Seed  
HELP  
**LOGOUT**

tnagrisnet.tn.gov.in/fcms/login/logout

08:44  
18-07-2015

## 9. Unable to identify the pest, click No and upload the symptom from gallery

e-velanmai

Farm Crop Management System

Pest / Disease Monitoring

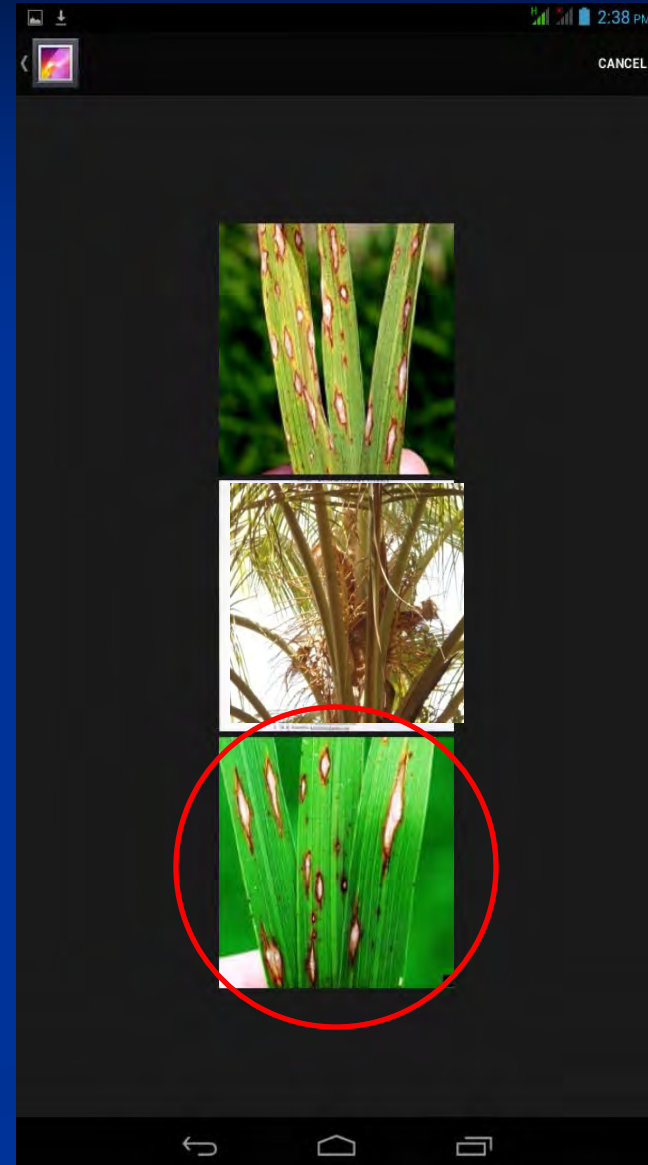
☒ PEST ☐ DISEASE ☐ OTHERS

Cause:

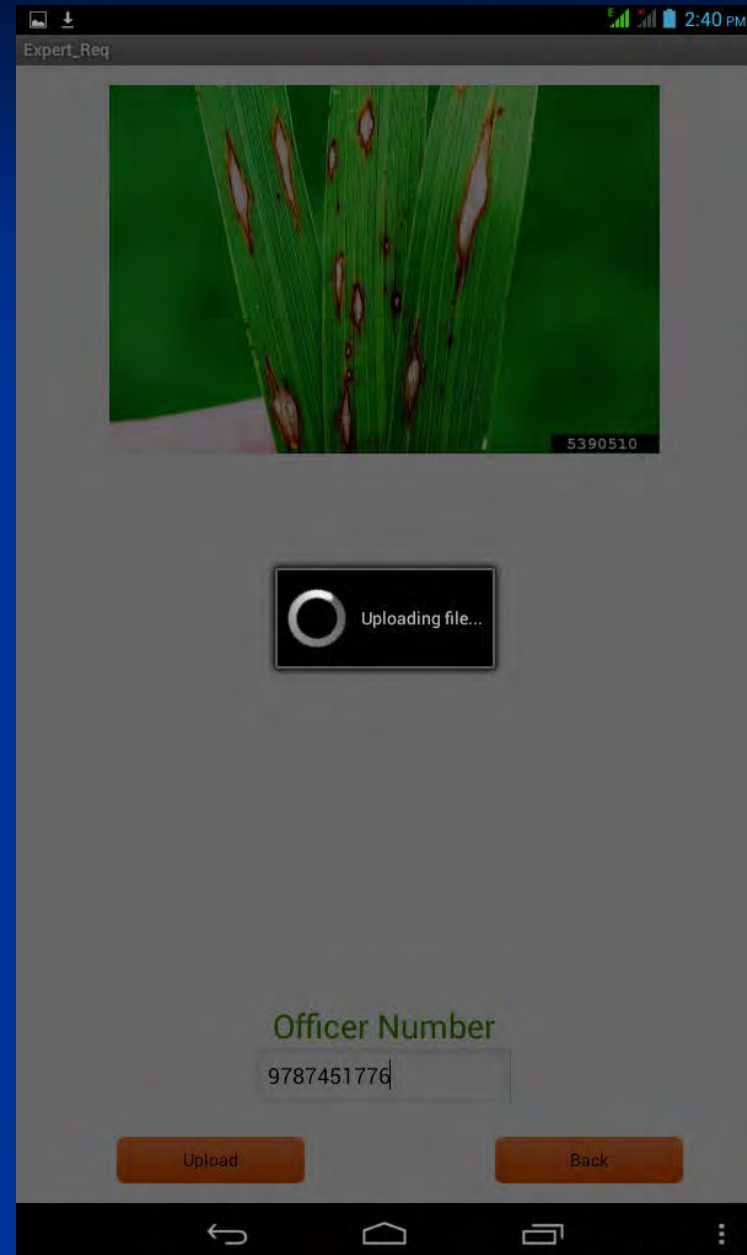
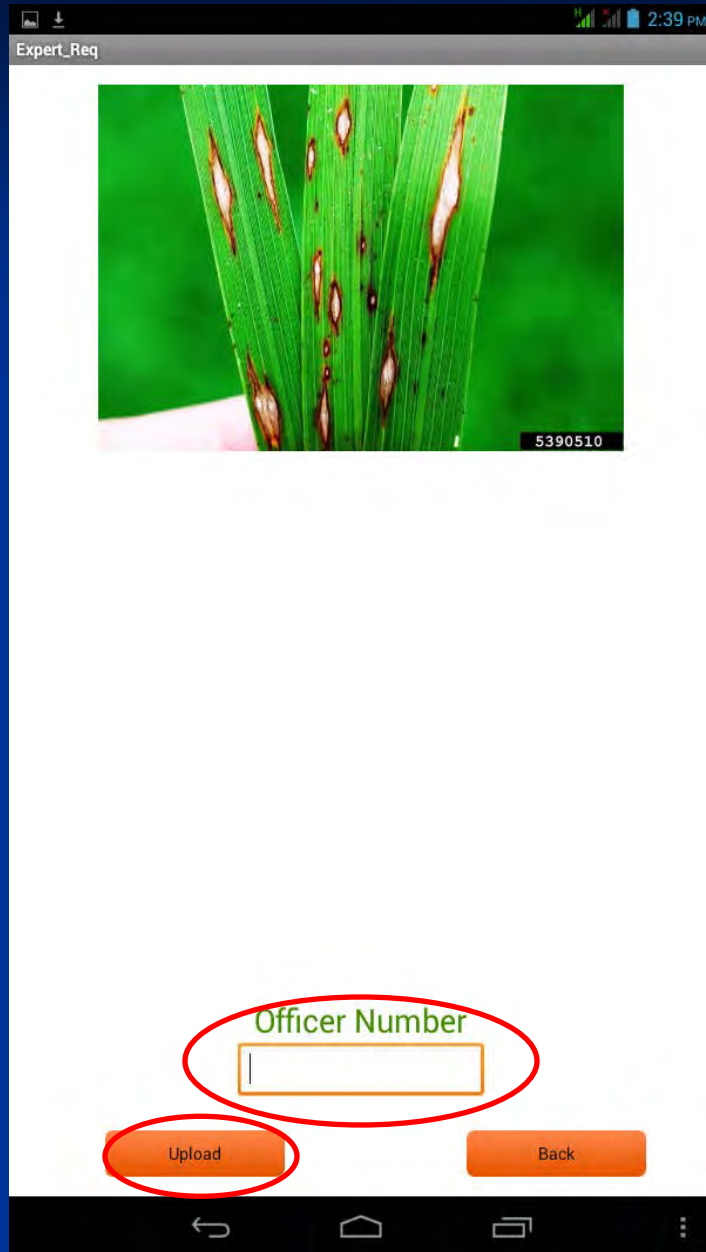
ETL ControlMessage ☐ Yes ☒ No

Photo

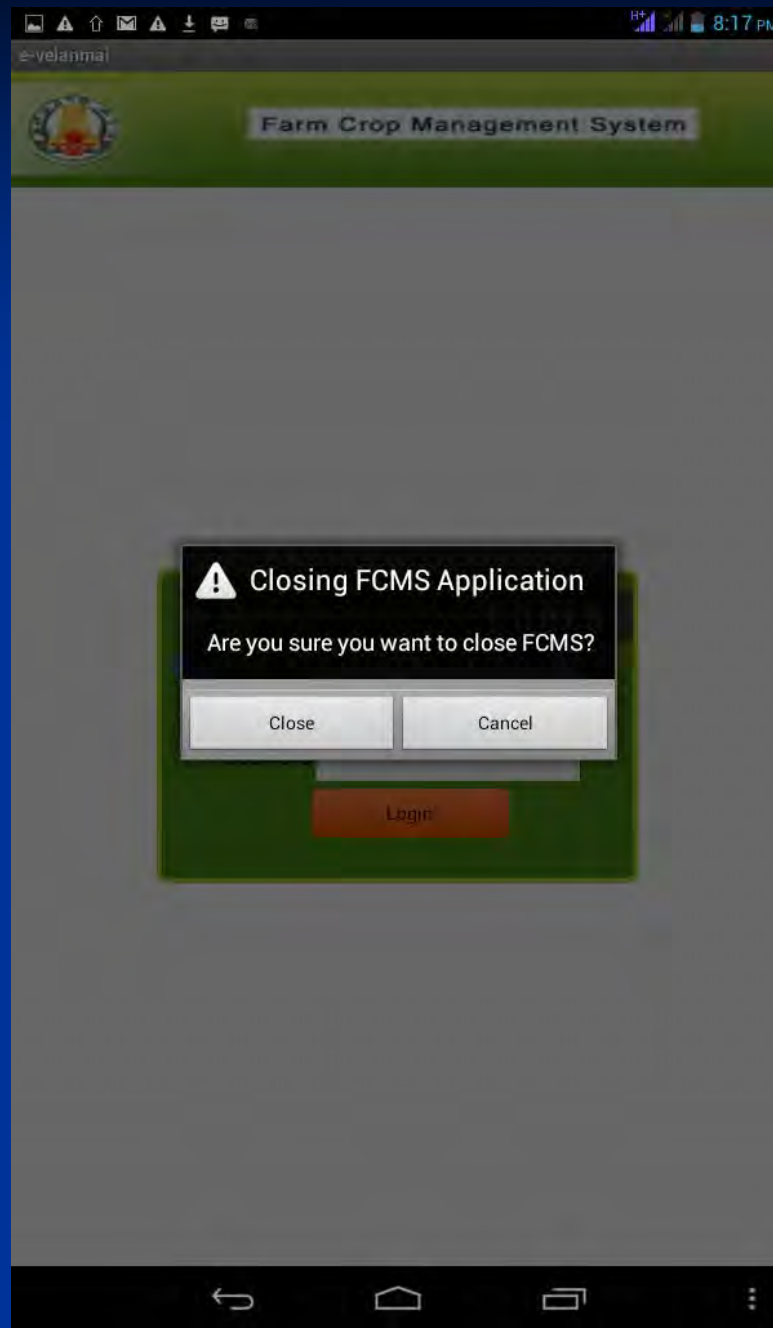
Back Send Sms Expert Advice



## 10. Enter the Extension officer's mobile number and up load



Expert at Level I can close the app



# 1. Expert at level II- To login by entering username and PW

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/login

Search

 **Farm Crop Management System**

Beneficiary List

Online Billing  
தமிழ் English



**LOGIN**

Username:

Password:



08:45  
18-07-2015



## 2. Click e-Velanmai to diagnose the crop images

AGRISNET :: Farm Crop Management S...

tnagrisnet.tn.gov.in/fcms/home/viewPhotos

GOVERNMENT OF TAMILNADU  
TRUTH ALONE TRIUMPHS

### Farm Crop Management System

APK Download

HOME **e-Velanmai** Seed Module SEED MONITORING

S.No	District Name	Block Name	Village Name	Crop	Image('Zoom')	Sms
1	Coimbatore	Anaimalai	Panappakkam	Paddy		<a href="#">Send Sms</a>
2	Kancheepuram	Padappai	Padappai	Blackgram		<a href="#">Send Sms</a>
3	Coimbatore	Anaimalai	Veeralpatti	Groundnut		<a href="#">Send Sms</a>
4	Coimbatore	Anaimalai	Odayakulam	Paddy		<a href="#">Send Sms</a>

Transferring data from tnagrisnet.tn.gov.in...

#### Send SMS

Mobile Number:

Farmer Name (Or) Code:

Message Content:

[Send SMS](#)

08:47  
18-07-2015





### 3. Observe the bigger image and take decision to give advice by clicking send SMS

AGRISNET :: Farm Crop Management S...

tnagrisnet.tn.gov.in/fcms/home/viewPhotos

Search

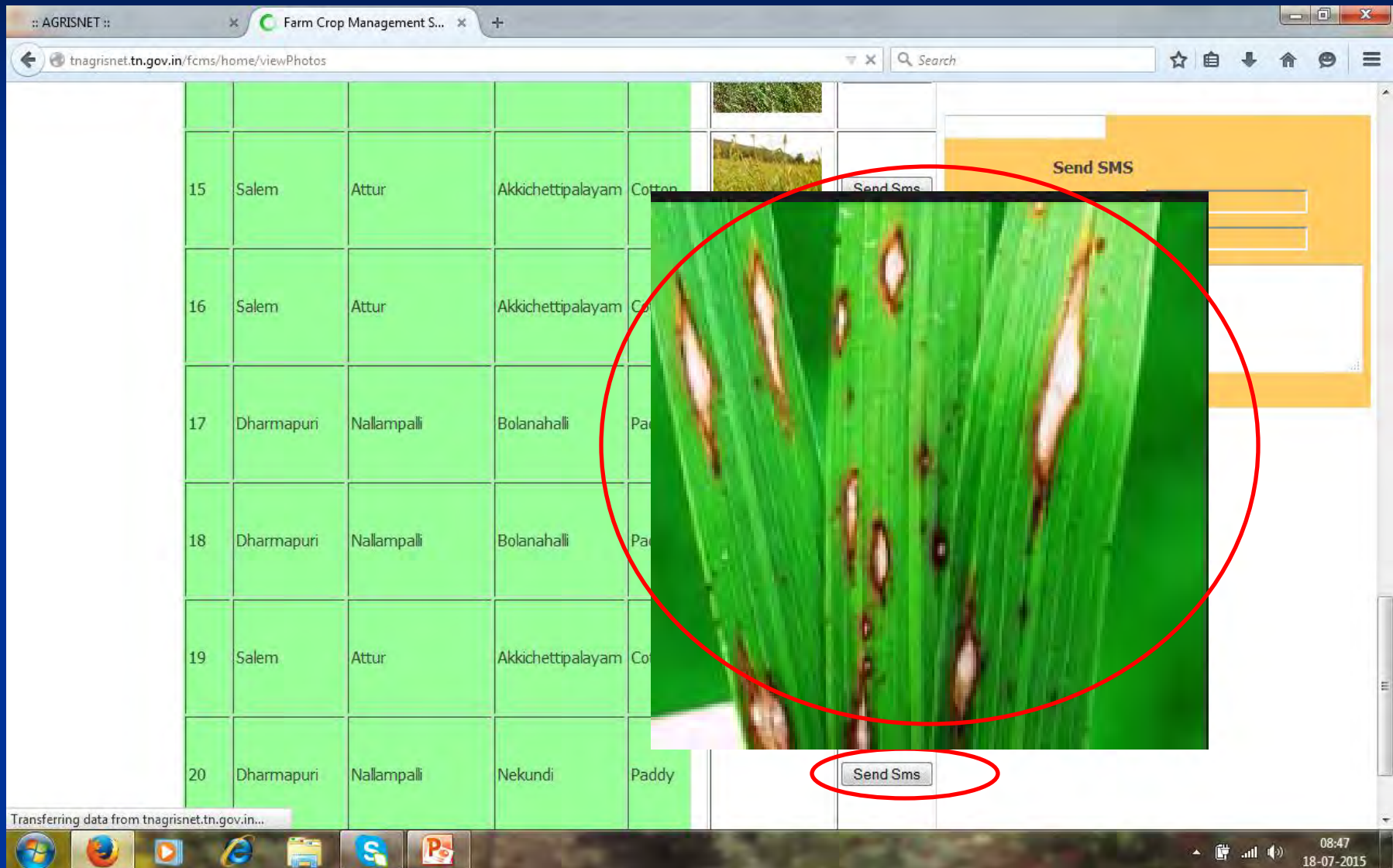
15	Salem	Attur	Akkichettipalayam	Cotton			Send Sms
16	Salem	Attur	Akkichettipalayam	Cotton			
17	Dharmapuri	Nallampalli	Bolanahalli	Paddy			
18	Dharmapuri	Nallampalli	Bolanahalli	Paddy			
19	Salem	Attur	Akkichettipalayam	Cotton			
20	Dharmapuri	Nallampalli	Nekundi	Paddy			Send Sms

Send SMS

Send Sms

Transferring data from tnagrisnet.tn.gov.in...






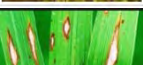
08:47 18-07-2015



## 4. Enter advice in the message content And 'send SMS'

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/home/viewPhotos

15	Salem	Attur	Akkichettipalayam	Cotton		<input type="button" value="Send Sms"/>
16	Salem	Attur	Akkichettipalayam	Cotton		<input type="button" value="Send Sms"/>
17	Dharmapuri	Nallampalli	Bolanahalli	Paddy		<input type="button" value="Send Sms"/>
18	Dharmapuri	Nallampalli	Bolanahalli	Paddy		<input type="button" value="Send Sms"/>
19	Salem	Attur	Akkichettipalayam	Cotton		<input type="button" value="Send Sms"/>
20	Dharmapuri	Nallampalli	Nekundi	Paddy		<input type="button" value="Send Sms"/>

943

**Send SMS**

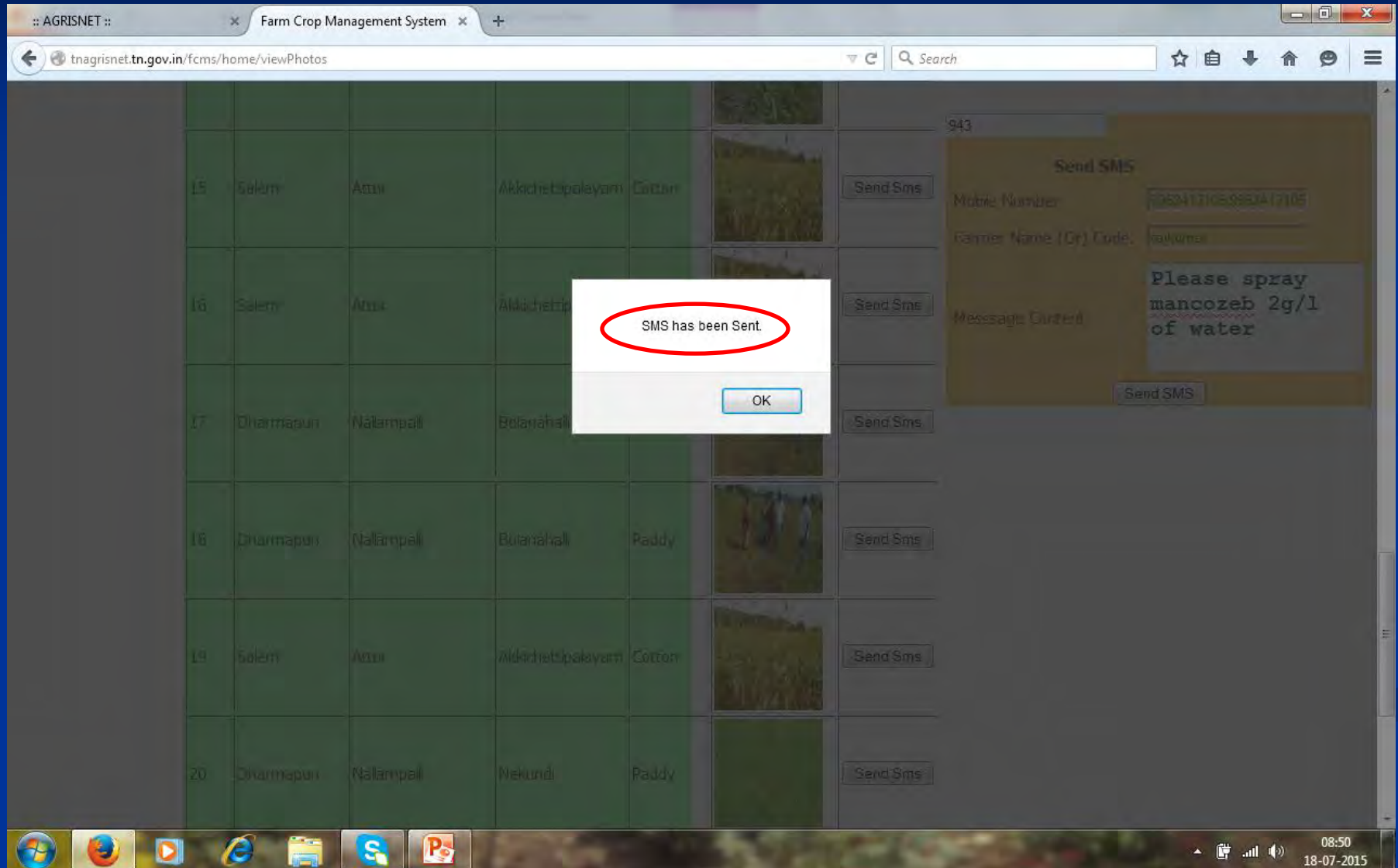
Mobile Number: 9952417105.9952417105

Farmer Name (Or) Code: rajkumar

Message Content: Please spray mancozeb 2g/l of water

08:50 18-07-2015

## 5. Confirmation message will be displayed





## 6. Download the report on the FCMS home page

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/

GOVERNMENT OF TAMILNADU  
TRUTH ALONE TRIUMPHS

# Farm Crop Management System

ary List

Online Billing  
தமிழ் English

HOME E-Velanmai Seed Module SEED MONITORING Farmer List LOGOUT

E-Velanmai APK Download

Report

tnagrisnet.tn.gov.in/fcms//home/report

08:51  
18-07-2015

# 7. Report on the advices offered will be generated by clicking the view image

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms//home/report

GOVERNMENT OF TAMILNADU  
TRUTH ALONE TRIUMPHS

## Farm Crop Management System

APK Download

HOME E-Valanmai Seed Module SEED MONITORING Farmer List LOGOUT

Delear Listing

E-Valanmai

S.No	District Name	Block Name	Village Number	Farmer Name	Farmer Mobile	Officer Mobile	Crop	Image
1			Kadali	Anadajothi	9443787737		Soyabean	<a href="#">View Image</a>
2			Kadali	Anadajothi	9443787737		Soyabean	<a href="#">View Image</a>
3			Kadali	Anadajothi	9443787737		Soyabean	<a href="#">View Image</a>
4			Nallamoor	Ramesh	9442390442		Sugarcane	<a href="#">View Image</a>
5			Thenkolapakkam	Raja	9487433442		Blackgram	<a href="#">View Image</a>
6			Vilakkur	Ayyasamy	9626176928	7598489226	Sugarcane	<a href="#">View Image</a>
7			Manimangalam	Ramu	9444005219		Redgram	<a href="#">View Image</a>
8			Manimangalam	Ramu	9444005219		Redgram	<a href="#">View Image</a>
9			Manimangalam	Ramu	9444005219	9444005219	Redgram	<a href="#">View Image</a>
10			Sankarankovil	Venky	9444005219	9444005219	Paddy	<a href="#">View Image</a>
11			Endappuli		9443730876,986		Groundnut	<a href="#">View Image</a>
12			Endappuli		9443730876,986		Groundnut	<a href="#">View Image</a>
13			Endappuli		9443730876,986		Groundnut	<a href="#">View Image</a>
14			Endappuli		9443730876,986		Groundnut	<a href="#">View Image</a>
15			Endappuli		9443730876,986		Groundnut	<a href="#">View Image</a>
16			Endappuli		9965655246		Sugarcane	<a href="#">View Image</a>

08:52  
18-07-2015



## 8. 'Logout' to end the process at level-II

AGRISNET :: Farm Crop Management System

tnagrisnet.tn.gov.in/fcms/

GOVERNMENT OF TAMILNADU  
TRUTH ALONE TRIUMPHS

Farm Crop Management System

Beneficiary List

Online Billing  
தமிழ் English

HOME E-Valanmai Seed Module SEED MONITORING Farmer List **LOGOUT**

e-Valanmai APK Download

tnagrisnet.tn.gov.in/fcms/login/logout

08:54  
18-07-2015





# Conclusion

- e-Velanmai is a **feasible and replicable** model of extension in India and developing countries.
- Low cost, user friendly and very effective model in terms of disseminating **timely and appropriate advice** to the farmers.
- **Conviction and adoption** of technologies by farmers is ensured to achieve enhanced productivity and farm income .