

TAMIL NADU PRECISION FARMING PROJECT

3. Processes

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Objectives

To prepare the farmers for market led horticulture

To empower the Farmers and Farmers' Forum

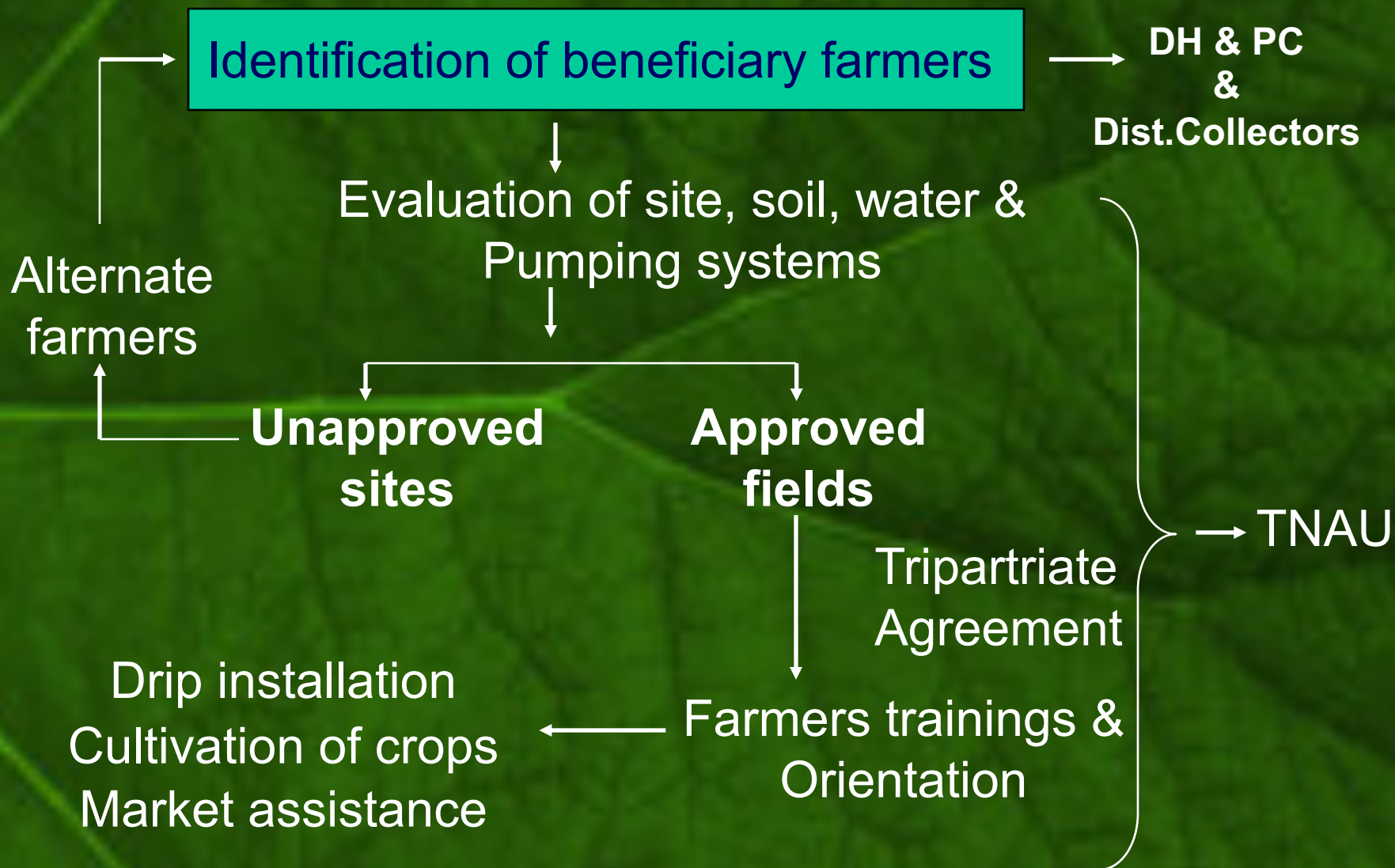
To promote Hi tech Horticulture inbuilt with precision farming elements

To be the model hi tech production system for the TN State

Physical Size in ha

Particulars	2004-05	2005-06	2006-07
Area (Tomato,Chilli, Paprika, White Onion, Gherkin,Cabbage , Cauliflower, Baby Corn, Bhendi, Capsicum)	100 ha	200 ha	100 ha
All annual horticultural crops 2005-06	Dharmapuri & Krishnagiri Districts		

Activity chart / Work plan



TNAU : PROJECT IMPLEMENTING AGENCY

Mode: Turnkey Project on consultancy basis

Plan of Work:

- Field Preparatory Operations**
- Installation of Drip cum Fertigation system**
- Crop cultivation**
 - 1 st crop by Scientist of TNAU**
 - Offer technical support for 2-5th crops**
- Training the farmers**
- Provide market support**

Crops raised so far

Tomato Hybrid

Chilli Hybrid

Bhendi Hybrid

Capsicum Hybrid

Paprika Hybrid

Tapioca

Bottle Gourd

Gherkin

Bitter Gourd

Turmeric

Onion

Cauliflower Hybrid

Cabbage Hybrid

Banana

Bush Beans

Beetroot

Radish

Coriander

Brinjal

Hybrid Tea Rose

Salidago

Tagets Sp

Chrysanthimum

Celosia

Limonium

Crossandra

China Aster

Cyprus

Button Rose

Yellow daisy

Snake gourd

Carrot

Chow chow

Pole beans

Potato

Yam

Jasmine

Papaya

Cotton

Sugarcane

Sorghum

Ground nut

Sesame

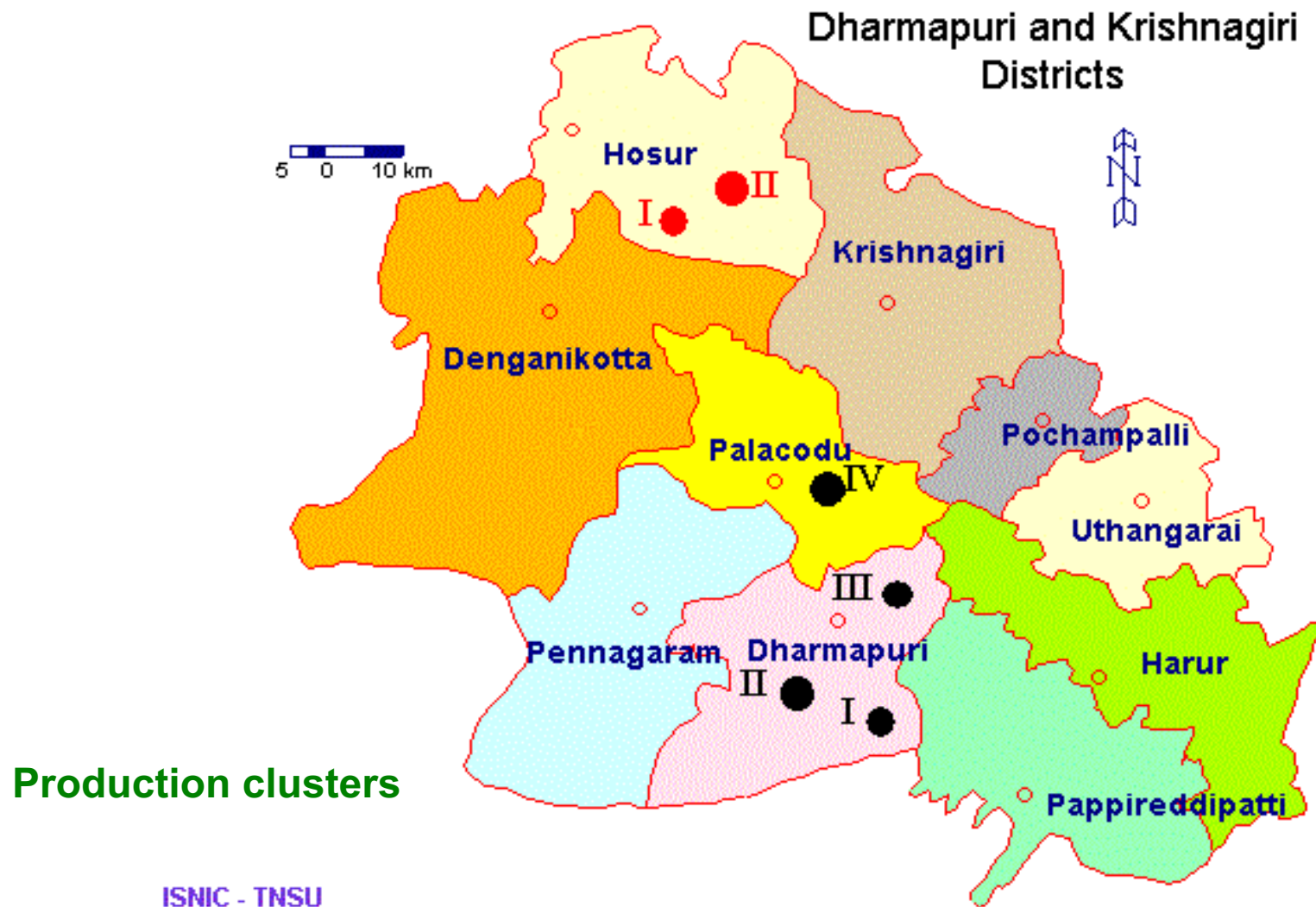
Sunflower

Maize

Cumbu

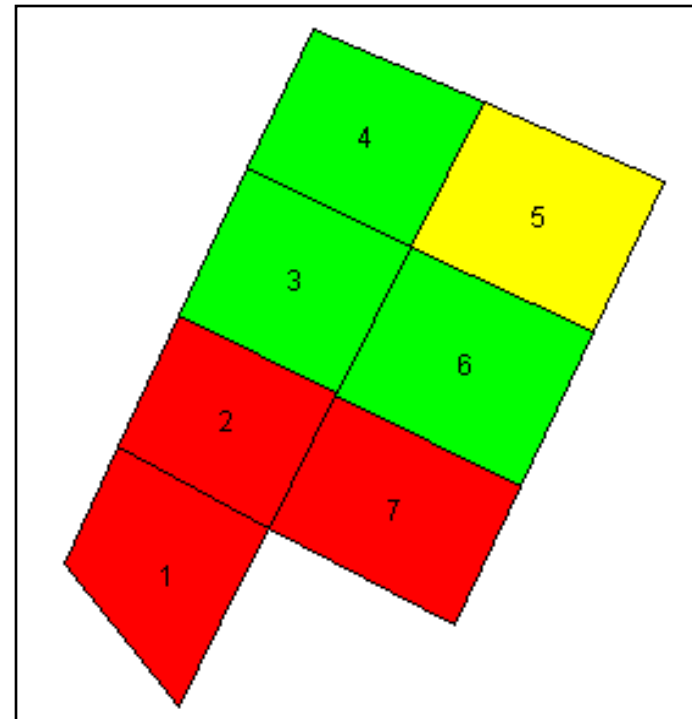
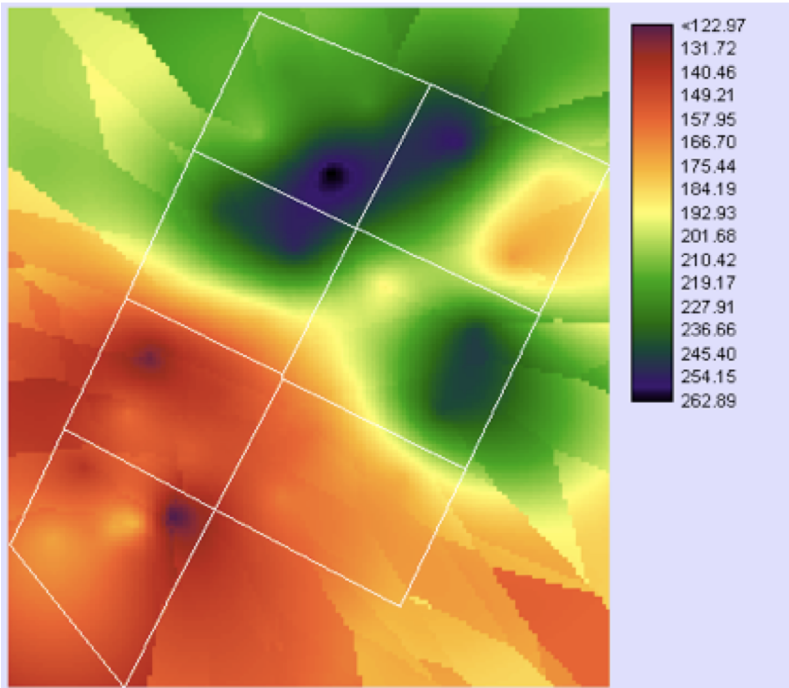
Ragi

Project site

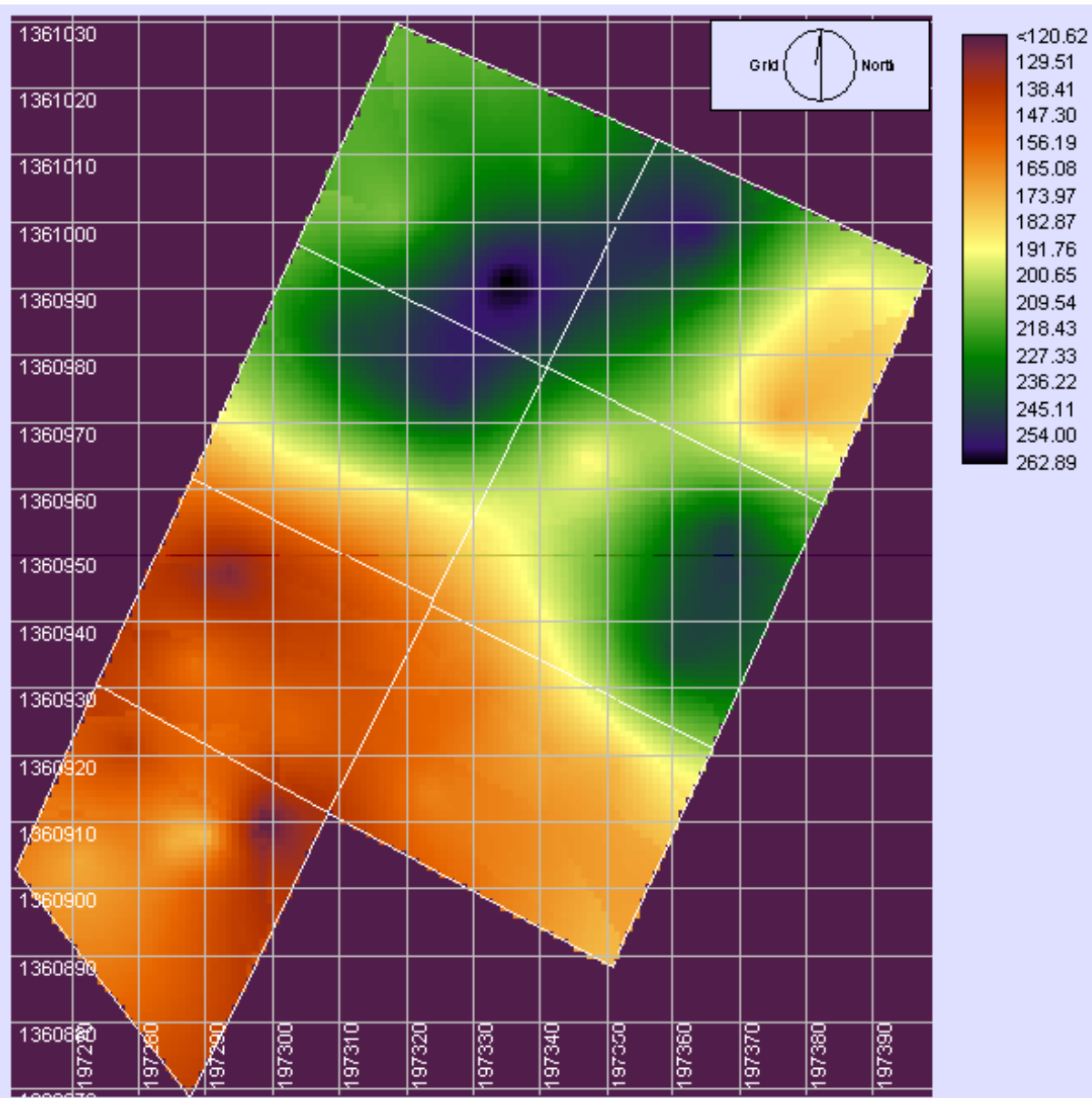


Spatial variability in available N

Thiru.K.Vadivel ,Periyamittahalli, Beneficiary farmer



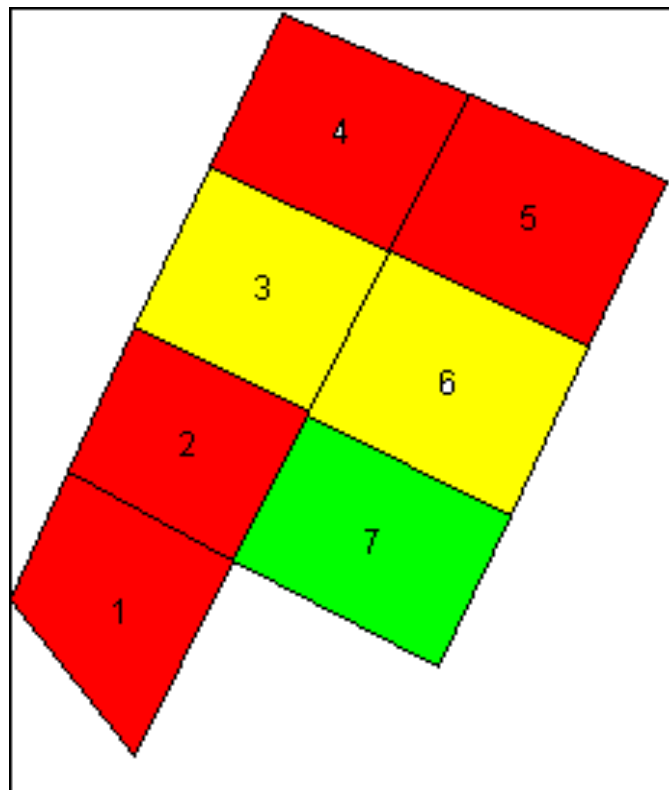
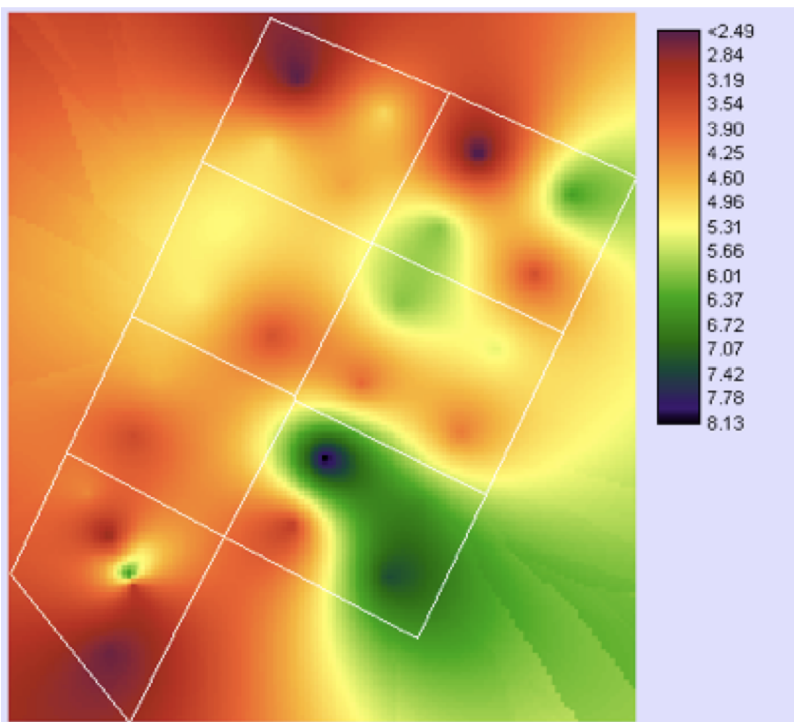
Precision N management



Field	N kg/ha	SD
Farm	120	11.5
Field 1	132.5	3.8
Field 2	134.5	2.5
Field 3	114.2	9.3
Field 4	107.8	4.8
Field 5	113.6	8.1
Field 6	113.1	6.3
Field 7	127.9	4.0

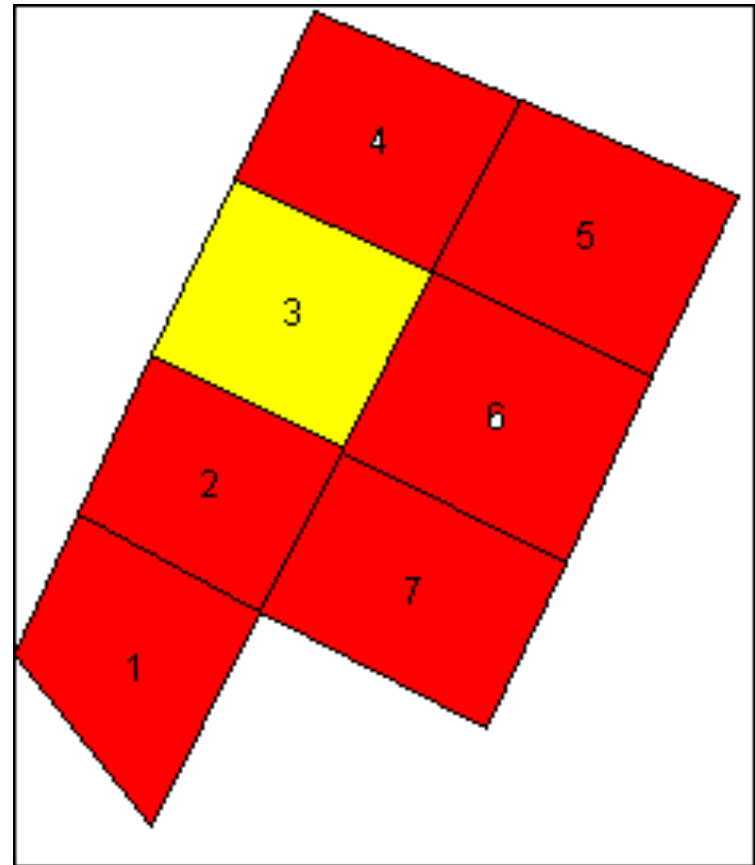
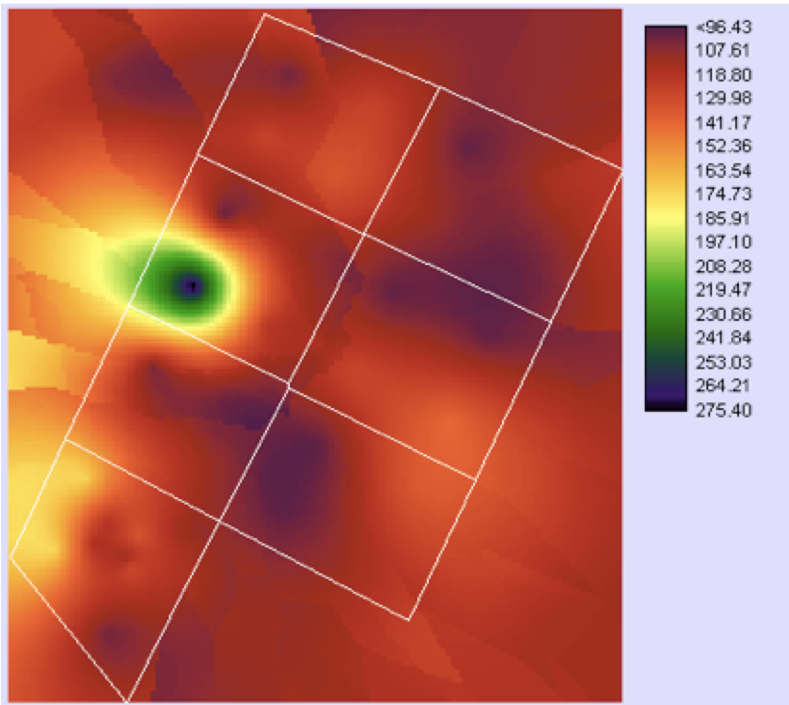
Spatial variability in available P

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



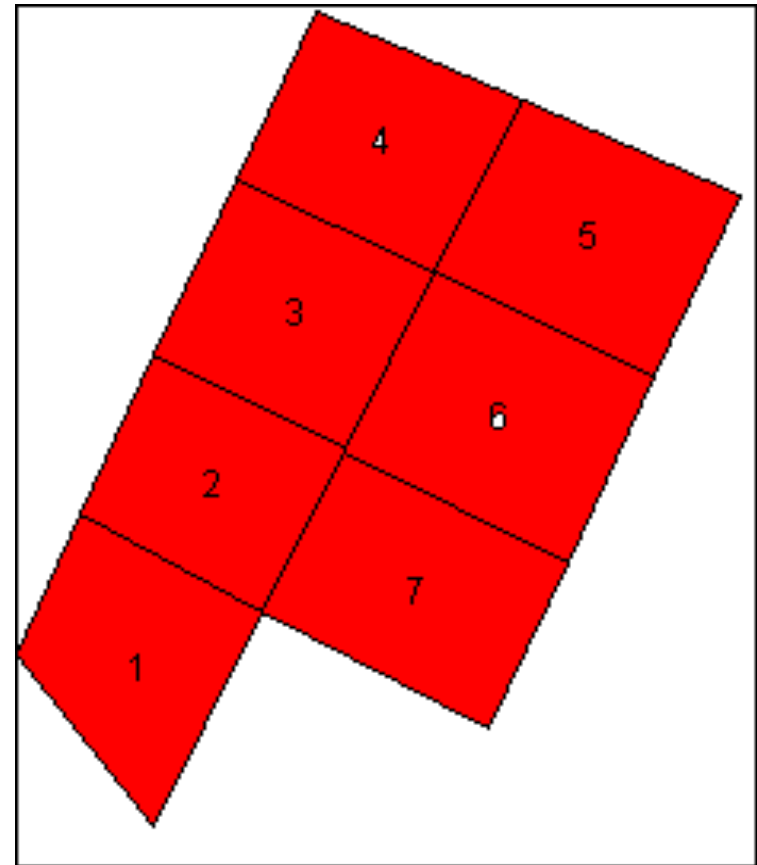
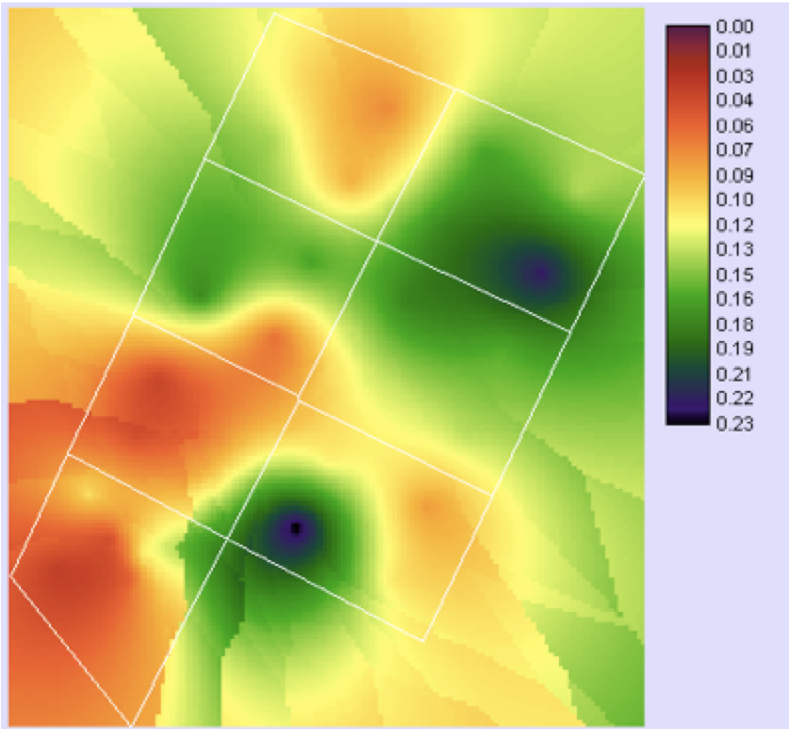
Spatial variability in available K

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



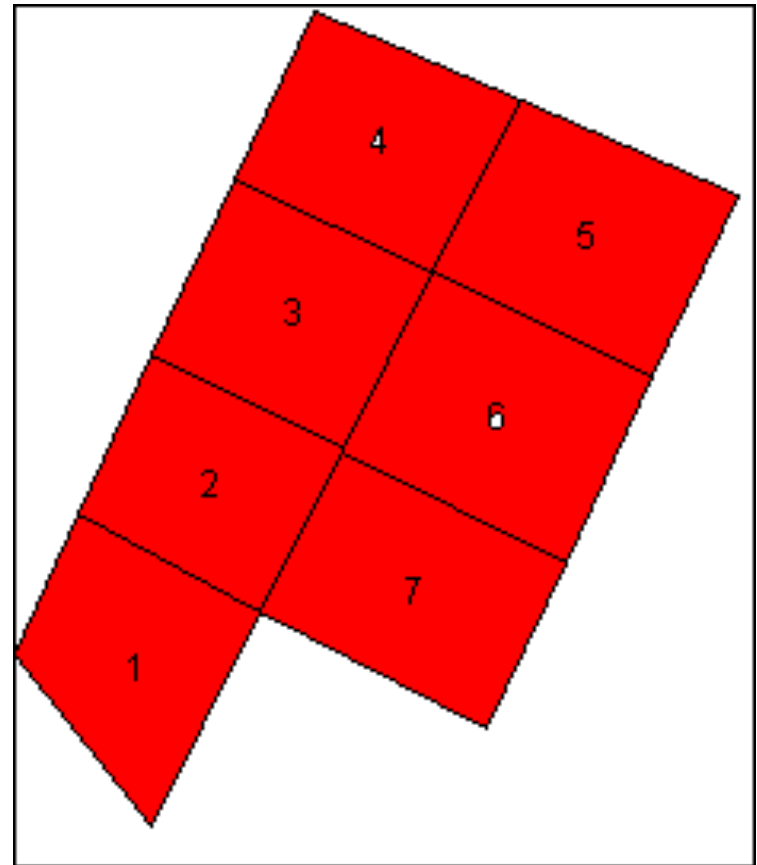
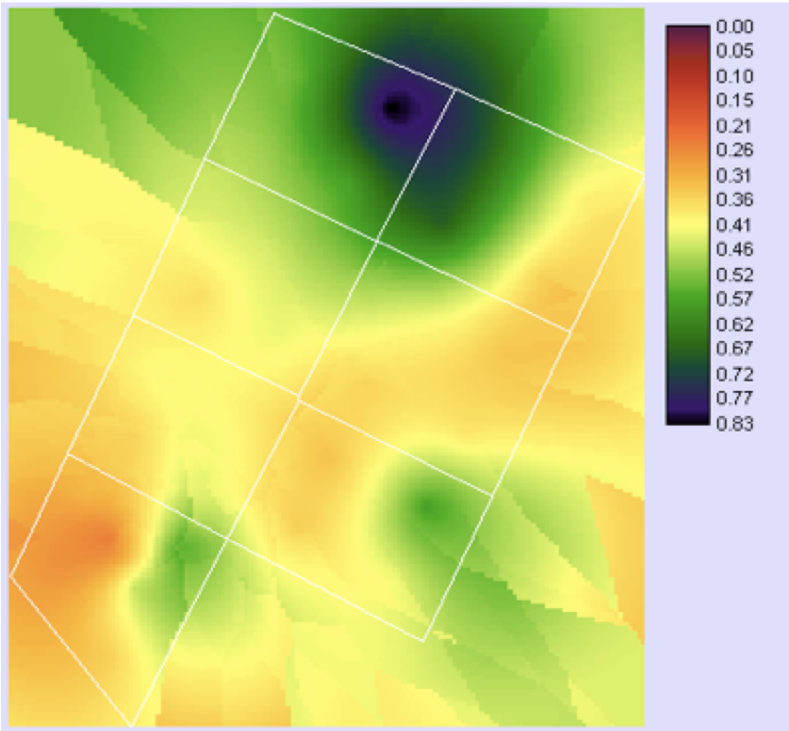
Spatial variability in available Fe

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



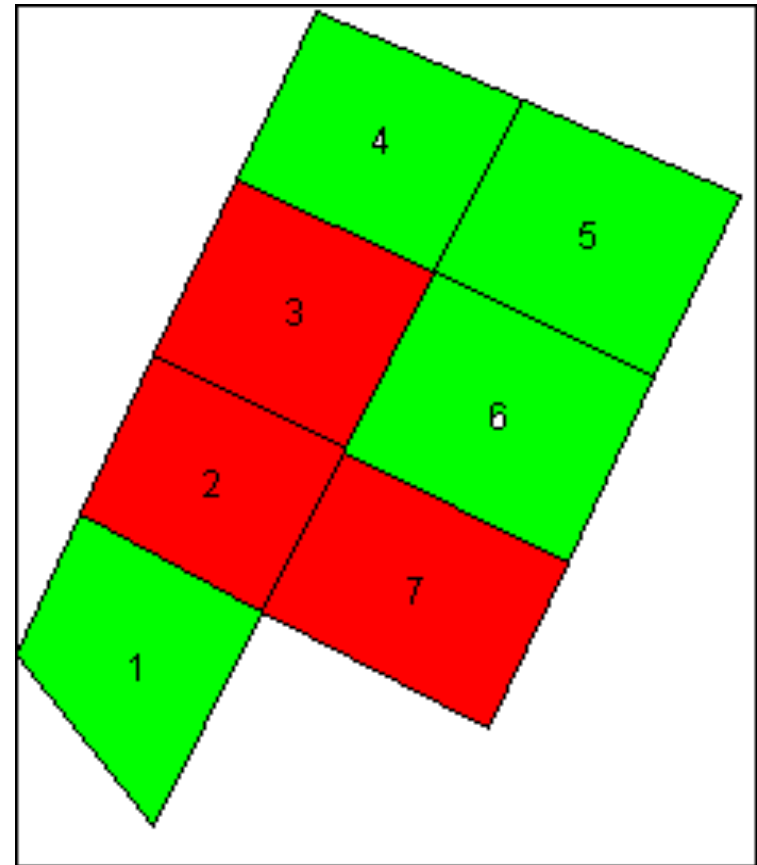
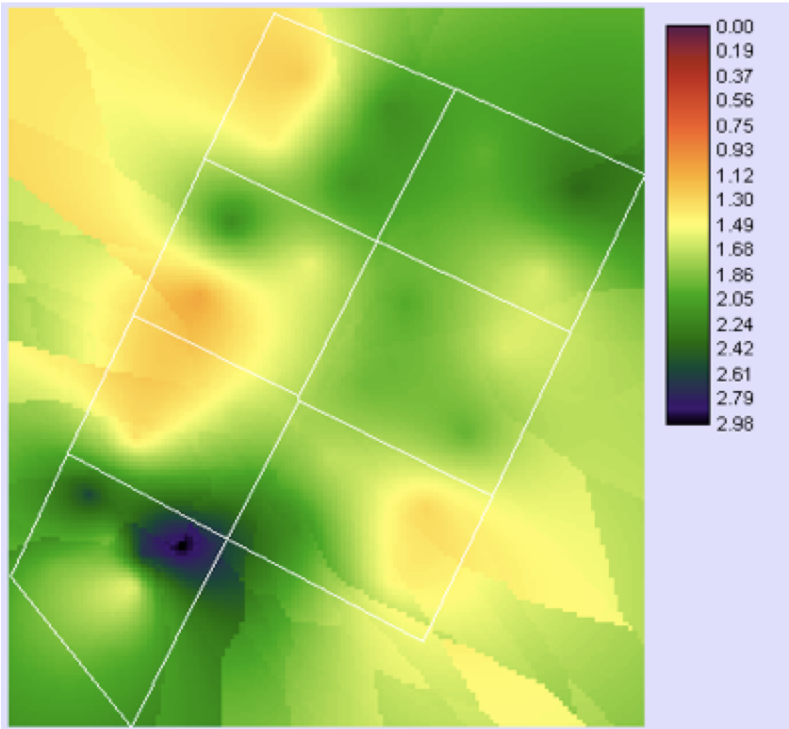
Spatial variability in available Ca

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



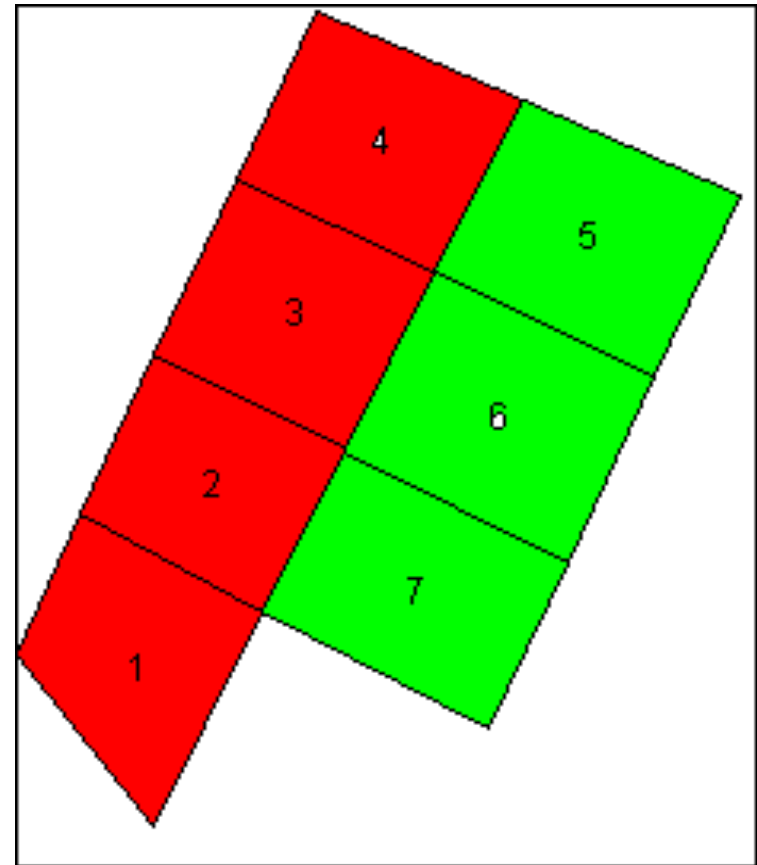
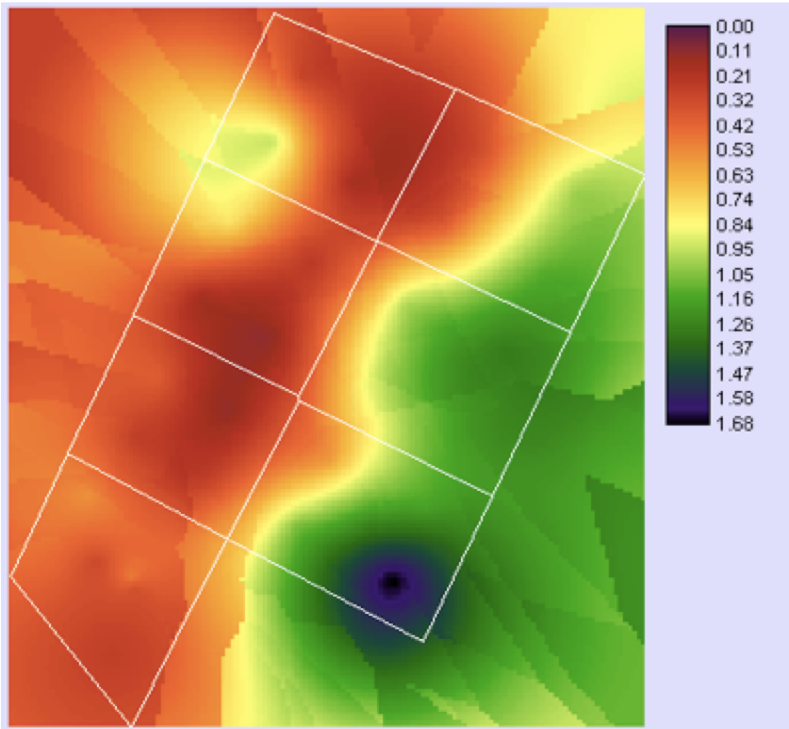
Spatial variability in available Mn

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



Spatial variability in available Cu

Thiru.K.Valasaiyappan ,Periyamittahalli, Beneficiary farmer



Beneficiary Farmers meet



Farmers interaction and sensitisation process

Installation of Drip system





Bend

Farmers own innovative ideas to fine tune the mechanism



Plastic cover



Concrete pipes placed vertically instead of masonry structures



10.01.2005 14:01

Water soluble fertiliser tank



SCHEDULED FERTIGATION TO SUIT THE CRITICAL STAGE OF GROWTH TOMATO PER HA.

Recommended dose : 200 : 250 : 250 kg /ha

75% of TRD : 150:188:188 kg/ha

Stage	Crop stage & No. of application	Duration in days	% Requirement		
			N	P	K
1.	Transplanting to establishment	10	10.00	10.00	10.00
2.	Flower initiation to fruit set	25	30.00	40.00	15.00
3.	Fruit set to first picking	25	30.00	30.00	30.00
4	Alternate day from picking	30	30.00	20.00	50.00
	Total duration	95	100.00	100.00	100.00

TNPFP FERTIGAION SCHEDULE TOMATO PER HA.

Recommended dose : 200 : 250 : 250 kg /ha

75% of TRD : 150:188:188 kg/ha

Stage	Crop stage & No. of application	Durati on in days	Fertilizer grade	Total fertilizer (Kg/ha)	Nutrient supplied (Kg)			% Requirement		
					N	P	K	N	P	K
1.	Transpla nting to plant establish ment stage	10	19:19:19	25.00	4.750	4.750	4.750	10.00	10.00	10.00
			13:0:45	31.50	4.095	-	14.175			
			Urea (46% N)	13.50	6.210	-	-			
2.	Flower initiation to fruit set	25	12:61:0	30.50	3.660	18.605	-	30.00	40.00	15.00
			13:0:45	62.50	8.125	-	28.125			
			Urea (46% N)	72.00	33.120	-	-			

Contd...

Stage	Crop stage & No. of application	Duration in days	Fertilizer grade	Total fertilizer (Kg/ha)	Nutrient supplied (Kg)			% Requirement		
					N	P	K	N	P	K
3.	Fruit set to first picking	25	12:61:0	23.00	2.760	14.030	-	30.00	30.00	30.00
			0:0:50	94.00	-	-	47.00			
			Urea (46% N)	92.00	42.320	-	-			
4.	Alternate day from picking	30	12:61:0	15.50	1.860	9.455	-	30.00	20.00	50.00
			0:0:50	188.00	-	-	94.00			
			UREA (46% N)	94.00	43.240	-	-			
	Total duration	95		Total	150.000	* 46.50	188.00	100.00	100.00	100.00

Chisel plough ensures effective drainage and aeration



Single

Multiple



Training farmwomen in Media filling and sowing in protrays



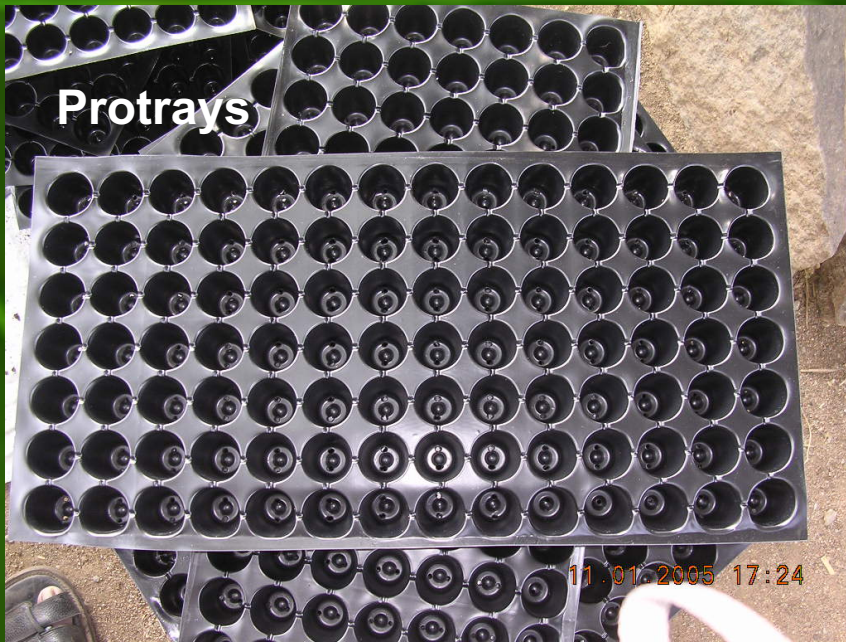
Community Nursery



F1 hybrid seeds



Media & Pseudomonas



Protrays



Protected net house nursery

11.01.2005 17:24



Hydroponic system for growing vegetables in a controlled environment. The system uses a nutrient solution and a pump system to deliver water and nutrients to the plants. The plants are grown in a nutrient solution and are protected from pests and diseases by the mesh wall. The system is designed to be efficient and easy to use.

Hydroponic system for growing vegetables in a controlled environment. The system uses a nutrient solution and a pump system to deliver water and nutrients to the plants. The plants are grown in a nutrient solution and are protected from pests and diseases by the mesh wall. The system is designed to be efficient and easy to use.



Protected Community Nursery....

30/09/2005

Community Nursery Structures





Chilli seedlings...



23/02/2007



Tomato Community Nursery

Chilli Community Nursery





Protection against dew and rain...





19/11/2007



Transport of seedlings



**Physical and physiological age of the seedlings are strikingly uniform
Ensures 100 % field stand and 100 % productive plants in the field
Effective root mass and no gap filling**



Thanks

Pl continue Presentation : 4