#### "Swarngeen Vikas ki Taraf Ek Kadam"

#### **Farmers' Empowerment Camp**

#### July 27<sup>th</sup> 2011 Tankarda village, Chomu, Rajasthan





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Your Good is Our Work

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# Introduction & Background



#### **Introduction & Background**

India is a home to a fast-growing population. Poverty remains a serious problem- with 300 million people living in poverty. There are also high levels of income disparity, literacy and inadequate public services leading to high unemployment.

Based on the stakes that are of critical importance to the nation, Good Works drafted Carrefour's India CSR strategy based on triple bottom-line CSR approach.

#### CSR approach recommended by Good Works:

#### **Global principals – local partnerships**

- Create economic opportunities for many through our business initiatives.
- Support the development of professional resources, through skill based educational initiatives.
- Encourage suppliers and contractors to conduct their operations in socially and environmentally friendly operations.

#### Why did we choose to work in the field of agriculture?

India stands second at a worldwide in farm output. India has traditionally been an agribased economy. Agriculture and allied sectors like forestry, logging & fishing accounted for 16.6% of the GDP in 2007, employed 60% of the total workforce. Despite a steady decline of its share in the GDP, agriculture is still the largest economic sector and plays a significant role in the overall socio- economic development of India.

However, the low productivity of agriculture in India is a result of the following factors:

- Illiteracy and general socio- economic backwardness, slow progress in implementing land reforms and inadequate or inefficient finance and marketing services for farm produce.
- The average size of land holdings is very small (less than 20,000 sq. meters) and is subject to fragmentation, due to land ceiling acts and in some cases, family disputes. Such small holdings are often over-manned, resulting in disguised unemployment and low productivity of labour.
- Adoption of modern agricultural practices & use of technology is inadequate, hampered by ignorance of such practices, high costs & impracticality in the case of small land holdings.
- Irrigation facilities are inadequate. Only 52.6% of the land was irrigated in 2003– 04, which resulted in farmers still being dependent on rainfall, specifically in the monsoon season. A good monsoon results in a robust growth for the economy as a whole, while a poor monsoon leads to a sluggish growth.



Education, empowerment and support to farmers were suggested to promote new and advanced agricultural technologies amongst the weaker sections of agrarian society. The various reasons promising the sustainability of the intervention were:

- It is critical to have improvements in the agri-sector since India is an agrarian country.
- The initiative is visibly "in sync" with the Carrefour's Quality Line initiative as well as aligns with Carrefour's supply chain mandate.

The Mission of the initiative is

- To promote agriculture technology amongst the weaker sections of society.
- To create Agri-champions for better, prosperous India.

<u>The Objective</u> is to accelerate growth of agriculture through niche initiatives & by including it as part of the Carrefour business plan.

#### **Process**

- Carrefour provides agricultural technology empowerment to people from their supply chain (*mandis*/ farmers).
- Beneficiaries will be given an opportunity to learn post harvest techniques in fruits and vegetables, sugar, oil seeds etc.
- Generation of self- employment opportunities in the form of setting up food preservation industries in their farming areas.

The two stages of the initiative are:

#### Stage 1: Farmers' Empowerment Camps

"Swarngeen Vikas Ki Taraf Ek Kadam" (A step towards the holistic development) -

- Empowerment camps for farmers in semi-urban & rural farming areas.
- The one day camps are held in centralized locations/ community centers.
- Strategic partnership with scientists from Indian Agricultural Research Institute of PUSA, PAU, etc will be cultivated as key resource people.
- Needs assessment of the commercial crop grown will be analyzed and technical support will be provided based on the crops grown in that area.
- ✓ <u>*The takeaways for participants*</u> the opportunity to enroll for an advanced 14-20 post harvest education days course sponsored by Carrefour.
- ✓ <u>Targeted Beneficiaries</u>- Maximum of 100 farmers will be mobilized for each camp. Farmers will be identified by the support of a local partner NGO from CBOs/ farmers associations, federations, cooperatives & panchayats.



#### **Stage 2: Education Sponsorship**

At the end of the camps sponsorship applications are circulated for extended course study at certified partner Institutions. The applications will be short listed by Good Works and submitted to Carrefour. Maximum of 30 farmers will be short listed per state and the boarding, lodging and education expenses for each sponsored candidate will be borne by Carrefour.



#### The camp at Tankarda Village, Chomu, Rajasthan

Village *Tankarda* is located 6 kms. from Chomu Town and about 40 kms. from Jaipur District. The region falls in agro-climatic zone 3-A semi arid eastern plain zone. The district is characterized with mild winter and hot summer. The mean maximum & minimum temperature of the area are 46.0 degree centigrade and 3.0 degree centigrade respectively.



Krishi Vigyan Kendra, Chomu

The main kharif crops are Groundnut, Bajra, Kharif Pulses and in Rabi, Wheat, Mustard, Barley & Gram are cultivated. Tomato, Peas, Chilli, Brinjal, Cabbage, Cauliflower etc. are cultivated as vegetable crops. Ber, Aonla, Bael, Guava, Lemon etc. are important fruit crops of the district. There is good potential for horticulture development. Wells & Tubewells are major source of irrigation. For optimum utilization of water, sprinkler and drip irrigation systems are becoming very popular.

After learning the agricultural background of the village, Good Works approached *Tankarda* village to conduct an empowerment camp at their location. A need assessment survey of the village was undertaken by Good Works. The findings/ learnings were documented to design a camp which will be helpful for the farmers.

The scientists & Department Heads from Indian Agricultural Research Institute (IARI) were approached to take key sessions of the Camp. The camp was held in the village on July 27<sup>th</sup> 2011 in Tankarda village near Chomu and saw the participation of 102 farmers.



#### **Chomu Workshop**

Village - *Tankarda* village, Chomu, Rajasthan Date - July 27<sup>th</sup> 2011 Number of Farmers Participants - 102 Venue – Kishi Vigyan Kendra Time of the Workshop - 09.30 am - 2 pm





### **Profile Analysis** of the Participants



#### **Profile Analysis of the Chomu Participants**

#### Participants' Profile

The camp targeted 80 farmers but a total of 102 farmers attended the workshop.

**Age of the Farmers:** The participants' group was a mixed one with farmers of all age groups. The majority of the participants, 47%, were middle aged i.e. from 40 - 50 years.

Age Brackets (in Years)	20-30s	30-40s	40-50s	50s & above
Number	10	20	48	24
%	9.8	19.6	47	23.5



Registration of Farmers

#### Size of Land Holdings

All the participants had their own land for cultivation. Nearly one third of the participants, 29.4, had land holdings measuring between 2 to 10 acres. No farmers had a land measuring less than 0.5 Hectare. Thirteen farmers had farming land which measured more than 50 hectares.

Land Size Holding (in acres)	less than 0.5	0.5-2	2-10	10-50	More than 50
Number	0	14	30	45	13
%	0	13.7	29.4	44.1	12.7



#### **Produce and its Marketing**

All the farmers were land owners and most participants shared that they grow mainly all kinds of vegetables along with cereals. A majority of farmers grew peanuts and millets, which were seasonal crops. Vegetables such as cauliflower, tomato, okra, eggplant were grown. Other crops such as wheat, soyabean, coriander, mustard seeds and garlic were also grown.

Nearly all participants, 94%, sell their produce in the nearby vegetable wholesale market (mandis) on a self support basis. The remaining relied on middlemen and agents to see their produce in the market.



### Agenda of the Camp



#### Agenda of the Chomu Village Camp July 27<sup>th</sup> 2011- Time Schedule

Time	Activity	Activity		
9.30- 10.30	Registration	Profile of the farmers		
am				
	Dr. S.S.Rathore	<ul> <li>Welcome of the participants.</li> </ul>		
	Programme Coordinator,	<ul> <li>Introduction of the Panel</li> </ul>		
	KVK, Chomu, Jaipur	<ul> <li>Objectives of the camp</li> </ul>		
	Mr. Amit Sharma, Quality	Welcome the Guest and Carrefour's		
	Manager, Carrefour WC & C	Introduction		
	India Pvt Ltd.	<ul> <li>Welcome the participants of Camp</li> </ul>		
10.30-		<ul> <li>Objectives of Camp</li> </ul>		
11.00am		<ul> <li>Carrefour's plan in India</li> </ul>		
		<ul> <li>Camps conducted in the past</li> </ul>		
		<ul> <li>Inclusion of women in Carrefour's</li> </ul>		
		beneficiaries		
Badri Prasad Jat, Local Farmer		Welcome the participants & Carrefour team on		
		behalf of the village		
	Film Screening	Carretour's commitment to local community		
11.00- 11.40	Shri N. K. Gupta	Techniques of Arid Fruit Cultivation		
am	S. M. S. (Horticulture)			
11.40-12.20	Dr. R. K. Gangwar	Integrated Pest Management Techniques		
pm	S. M. S. (Plant Protection)			
12.20- 1.00	Dr. S. K. Sharma	Organic Vegetable Cultivation		
p.m	S. M. S. (Soil Science)			
1:00-	Dr. P. C. Jat	Water Management & Weed Management		
1.40pm	S. M. S. (Agronomy)			
1.40- 1.50	<b>Open House Discussion</b>			
p.m				
1.50- 2.00	Vote of thanks and distribution o	f mementos		
p.m				
2.00 p.m	Lunch			
onwards				



### Workshop Representatives



#### **Workshop Representatives**



#### Resources from Krishi Vigyan Kendra

- Dr. S.S Rathore, Program Coordinator KVK
- Shri N.K Gupta, S.M.S (Horticulture)
- Dr. R.K Gangwar S. M. S. (Plant Protection)
- Dr. S. K. Sharma S. M. S. (Soil Science)
- Dr. P. C. Jat S. M. S. (Agronomy)

#### **Carrefour Representatives:**

- Mr. Pascal Kraak- Merchandise & Marketing Director
- Mr. Mohan Shukla- Corporate Affairs Director / CSR Head
- Mr. Franck Kenner- Operations Director
- Mr. Amit Sharma- Quality Manager

#### **Good Works Representatives:**

- Ms. Aditi Sinha: Associate Programme Officer, Good Works (Compere)
- Mr. Mhd. Tahir: Administrative officer, Good Works
- Mr. Pankaj: Administrative officer, Good Works



### The Camp



#### The Camp

#### Inaugural Session

The camp was inaugurated after the registration of the participants was completed. A "profile" form was specifically developed to get the details of the farmers. The form intended to capture the profile of the participant in terms of land size, crops grown, place of sale (i.e. *mandi*) and demographic information.

The questions in the forms were raised to the participants and their responses were duly entered. After the completion of the form, a literature kit was given to the participants.

Aditi Sinha called upon Dr. Rathore to welcome & address the guests.



Dr. S.S. Rathore (Principle Scientist and Project Coordinator)

**Dr. S. S Rathore,** Project Leader and Principal Scientist, Division of Agricultural Extension, IARI welcomed the farmers, Carrefour team and farmer participants. He described the ICRA project established by the Indian Government to enhance integrated farming systems in the country. He also offered an overview of activities performed by *Krishi Vigyan Kendra*, Chomu for the benefit of local farmers.

• Drip Irrigation, especially for vegetable production, was introduced in Chomu district five years ago and gained momentum during the last 2- 3 years. This resulted in 70% water savings for farmers and 40% labour savings, which reduced the cost of production.



- Farmers were introduced to Orchard Development for *Karonda*, *Papita* and *Neembu* crops, which are suitable for the region's arid climate. Training is provided for marketing, processing and delivery of orchard produce.
- Specialized agricultural training is provided to ensure that crops last for a longer period of time since produce is delivered all the way to Ahmedabad in Gujarat.
- Soil Sampling and Analysis is undertaken by government representatives and farmers are then advised of crop production and fertilizer usage.
- A Demonstration unit is set up which provides training about food production and packaging to enhance the quality of crops.
- Animal and Dairy Management training is provided to farmers.
- A one-year vocational program in vegetable seed production and horticulture is offered free of charge to unemployed youth. It aims at increasing the self employment of youth in the areas of nursery management, seed processing and orchard production.
- Regular text updates in Hindi about cropping patterns, fertilizer usage etc. are sent to farmers via their cell phone.



Amit Sharma, Quality Manager, Carrefour

Amit Sharma, Quality Manager at Carrefour, was called upon to introduce Carrefour to the participants. On behalf of Carrefour's CSR team, Mr. Amit Sharma introduced the panel which comprised of the following esteemed scientists of the IARI. The panel members were:

- Shri N.K Gupta, S.M.S (Horticulture)
- Dr. R.K Gangwar S. M. S. (Plant Protection)
- Dr. S. K. Sharma S. M. S. (Soil Science)
- Dr. P. C. Jat S. M. S. (Agronomy)



Mr. Sharma also welcomed the esteemed members of the Carrefour India Board. The panel members were:

- Mr. Pascal Kraak- Merchandise & Marketing Director
- Mr. Mohan Shukla- Corporate Affairs Director / CSR Head
- Mr. Franck Kenner- Operations Director

Mr. Sharma shared Carrefour's operations & presence in India and worldwide briefly:

- Carrefour is the world's second largest retail company. It has offices in 30 nations with over 15000 stores.
- Carrefour has had a long standing relationship with India since 2001 when it began to purchase fruits and vegetables from Indian farmers.
- Carrefour opened its first Cash and Carry Store in India in December 2010 and is aiming to open a second store in Jaipur by the end of 2011. It currently works with 90 suppliers in Uttar Pradesh, Andhra Pradesh, Delhi, Punjab and Haryana.
- Carrefour has been organizing farmer's camps in different villages & touching base with farmers. These camps give an opportunity to the farmers & scientists to reach to each other and exchange information.
- Carrefour is committed towards empowerment of the local community and aiding economic development globally.
- The agenda of the Chomu camp is to interact with the farmers and understand their needs and concerns, while learning from the farmers as well.
- Carrefour anticipates that the topics discussed by KVK scientists will be beneficial for the farmers.

**Local Farmer Badri Prasad Jat** was invited to address the audience. He welcomed Carrefour, the scientists and the farmers and thanked them for visiting KVK for the workshop. He shared that he was associated with KVK for the last 10 years and was looking forward to an interesting workshop.





#### Session 1 – Techniques of Arid Fruit Cultivation Resource – Shri N.K Gupta, Subject Matter Specialist (Soil Science)



India is a farming dependent nation with about 70% of its population depending on agriculture as its primary occupation. Rajasthan is one of the most arid states in the country and thus the most rainfall dependant. Farmers need to modify their farming methods and techniques and adapt to the situation of dry heat and little rainfall.

- Wheat requires a considerable amount of water to reach the harvest stage. Vegetables, too, require water every few days. Despite using drip irrigation techniques, the water table is diminishing which has a negative impact on the production of crops.
- The development of fruit trees and orchards that require less water is fast gaining momentum. These include *Aamla, Ber, Karonda, Lehsua* and *Neembu*.

During the months of May and June, dig holes in the ground in preparation to sow these trees. It is advisable to plant these trees in line at regular intervals as follows:

Crop	Distance
Aamla	8 m
Ber	8m
Beel	6.8m
Lasoda	8m

- After digging holes, wait for 20-30 days and then add 20-25 kilo cowdung, 100 gram andosulphan and 1.5% Kyunalphas into the ground.
- Add water to the ground or wait for two good rain showers before planting trees.
- Buy seeds from nurseries or from KVK and always plant more than one variety of trees.
- Make sure to irrigate the trees after they are planted and till the fruits ripen.
- Be aware of methods of plant protection from the loo, extreme winter, pests etc to ensure healthy growth.



- Government of India Scheme If a farmer intends to set up a bageecha, land that is usually available for Rs. 40,000 per 10 bhigha, is made available for Rs. 10,000 at a concession to encourage the practice.
- If a farmer plants 25 trees each of *Aamla, Ber, Beel, Lehsua* and *Karonda,* it ensures a steady crop supply all the year around. This is indicated by the following table:

Fruit	Time of Ripening
Aamla	December- January
Ber	February to March
Beel	April to May
Lasoda	May to June
Karonda	July to August



#### Session 2: Integrated Pest Management Techniques (IPM) Resource: Dr. R. K. Gangwar, Subject Matter Specialist (Plant Protection)



The Integrated Pest Management Program can be defined as a sustainable approach of management of pests by a combination of biological, cultural, mechanical and chemical tools in a way that minimizes economic, economic, health and environmental risks.

The Integrated Pest Management Program can be implemented through the introduction of pest resistant varieties, adopting traditional and cultural practices of pest control, application of mechanical methods, introduction of biological methods, and control through the application of different chemical compounds

#### The objectives of IPM are:

- To maximize crop production with minimum input costs.
- To minimize environmental pollution in soil, water and air due to pesticides.
- To minimize occupational health hazards due to chemical pesticides.
- To preserve ecosystems and maintain ecological equilibrium.
- To use no or fewer chemical pesticides for minimum pesticide residues.
- To improve farming systems.

#### **Types of Pests and Pest Management:**

Pest	Crops Affected	Symptoms	Management
Aphids	Mustard, Wheat,	Yellow spots on	Spraying Dimethoate @ 875
	Tomato, Chilli and	leaves, retardation of	ml – 1 Lt/ ha or dusting of
	Brinjal	plan growth,	Methyl Perathion @ 25 Kg/ ha
		dropping of flowers	for field crops
		and fruits	Spraying Malathion 50 EC @
			0.75 - 1 Lt/ ha or Acephate @
			500 - 750 g/ ha. for vegetables
Jassids	Okra, Brinjal and	Leaves turning	Spraying Imidacloprid @ 0.6
	Cucurbits	yellow and curling,	ml/ Lt water or Acephate @



		infested leaves of okra turning reddish and curling, dropping of flowers and fruits	1.5 gm/ Lt. water
Thrips	Onion,Garlic, Tomato and Chilli	Yellowish-white spots and leaves turning upwards in chilli	Spraying Imidacloprid @ 0.5 - 0.6 ml/ Lt water or Acephate @ 1.5 gm/ Lt. water
White Fly	Brinjal, Chilli, Okra	Yellow spots on leaves, retardation in plant growth, drying of leaves	Spraying Acetameprid @ 0.5 - 0.6 ml/ Lt water or Acephate @ 1.5 gm/ Lt. water

#### **Techniques in IPM:**

- Remove and destroy egg masses, larvae, pupae and adults of insect pests and diseased parts of plants wherever possible.
- Destroy weeds to prevent the growth of pests that grow on weeds.
- Avoid growing one crop in the same field constantly. This will ensure that food supply for the pests will be erratic and they will not increase in number. For example, if pests accumulate on the mustard plant, it is beneficial to grow onions or garlic in place of the mustard crop.
- Protect nurseries or main fields from pest infestation by removing plant debris, trimming bunds, treating soil and deep summer ploughing which kills various stages of pests.
- Adopt proper drainage system in fields.
- Grow pest friendly crops around the primary crop to ensure that pests will be prevented from attacking the primary crop. For example, growing corn or sorghum around the tomato crop will ensure that the *White Fly* will be prevented from attacking the tomato crop.
- Adopt proper water management techniques since the high moisture in soil for prolonged period is conducive for development of pests especially soil borne diseases.



#### Session 3: Organic Vegetable Cultivation Resource: Dr. S.K Sharma, Subject Matter Specialist (Soil Science)



Organic agriculture is a holistic production management system that promotes the health of the agro system related to biodiversity, nutrient biological cycle, soil microbial and biochemical activity

- Despite using considerable amounts of pesticides and fungicides, we are unable to prevent or ontrol the growth of pests in the crops. Often, pesticides are poisonous for crops and may do more harm than good.
- There are numerous instances of farmers injecting oxytocin in crops and selling their produce in the market.
- While there is a significant need to increase production and earn profit, this must not occur at the expense of eating healthier food. In the past, life expectancies were much higher and most people live to 90 years of age. In the last decade or so, life expectancy rate have fallen, and a causal factor is the unhealthiness of food crops in the market.
- Organic Farming does not imply that we completely cease to use fertilizers on crops. Rather, we need to do Integrated Nutrient Management depending on the fertility status of the soil and the amount of nitrogen or potassium needed for crops

#### **Benefits of Organic Farming:**

- Organic farming is more economical than the other farming techniques. Its benefits include reduced soil erosion and less use of water. Therefore, it is more profitable.
- Organic farming results in less nutrient contamination since it stays away from artificial pesticides. This leads to reduced carbon-emission and increased biodiversity.
- Organic farming helps the farmers clear the weeds without using any mechanical and chemical applications.



- Organic farming relies on practices like hand weeding and enhancement of soil with mulch to get rid of weeds and insects while ensuring crop quality.
- Organic farming is environment-friendly and non-toxic since it uses green pesticides like neem and compost.



#### **Hindrances to Organic Farming:**

- Lack of a clear backing and support by the government for organic agriculture.
- Lack of awareness among farmers about modern methods of organic farming and its advantages. Farmers in India are also by and large unaware of the modern techniques of making compost.
- It is easier to transition from organic farming to chemical based farming but it is time consuming to switch from chemical based farming to organic farming.
- It is harder to yield crops in the beginning and the farmer must be well prepared for the same. It is imperative that farmers receive support and encouragement to prevent disillusionment at the process.



#### Session 4: Water Management and Weed Management Resource: Dr. P.C Jat, Subject Matter Specialist (Agronomy)



India generates about 196.81 million tones of produce of which 60.45% are Kharif crops. These include Sorghum, Millets, Corn, Peanuts, Soyabean, Arhar Dal and Sugarcane.

Owing to India's rising population, it is imperative for farmers to ensure high productivity and yield, which can only be attained by effective water and weed management. Weed Management is especially necessary from the sowing of the Kharif crop to its eventual harvest. It is a significant issue that needs to be tacked especially since weeds gain an impetus from temperature and rainfalls during the monsoon season.

#### There are three broad categories of weeds:

- ✓ Broad Leafed Weeds which include *Mahua*, Junglee Chaulayi, Saphed Murg, Jungli Jute, Keni etc.
- ✓ Sedge Weeds which include *Kodo*, *Makda*, *Siyur*, *Busbhut* etc.
- ✓ Grass Weeds which include the *Motha* family

#### Damage caused by Weeds:

- As a result of high temperatures during the Kharif season, there is a higher growth of weeds as compared to the Rabi season. Weeds often steal moisture, nutrients and soil from Karif crops, which impacts Kharif crops in a negative way.
- Pests and diseases that grow on weeds may spread to the nearby Kharif crop.
- Weeds harbor insects, pests and micro-organisms.
- Certain weeds release poisonous substances into the soil which are harmful to the plants.
- Weeds increase the expenditure on labour and equipment, render harvesting difficult, and reduce the quality and marketability of agricultural produce.



Weeds generate a formidable competition with crop plants for light. Unchecked weed growth in the fields will intercept sun rays to the detriment of the crop plants.

#### **Techniques to Prevent Weed Growth:**

- <u>Preventive methods</u> consist of sowing crop seeds not contaminated with weed seeds, using manure and irrigation water not laden with them and the enforcement of weed control laws and seed-certification measures.
- <u>Mechanical methods</u>- Hand-pulling or hand-weeding, hoeing, tilling, mowing, burning, flooding, smothering, etc. are examples of physical methods of weed control, involving the use of physical energy through implements, either manual, bullock-drawn or power-operated
- <u>Cropping methods</u> Weeds under many conditions are better competitors than crop plants for light, water, nutrients and soil space. However, farming practices are capable of changing the condition in such a way as to enable the crop plants to compete with weeds successfully or to reduce their interference to the minimum and thus preventing them from acting as impediments to increased crop production. Seeds with good germination will give the crop a vigorous and close stand and thus enable it to steal a march on the weeds.
- <u>Chemical methods</u> The controlling of weeds in the growing crops with weedicides increases their yields and ensures the efficient use of irrigation, fertilizers and plant-protection measures, such as the spraying of insecticides and fungicides





#### **Farmer's Feedback Analysis**



A total of 61 feedback forms were received from the farmers

#### **Relevance of the Workshop:**

All the participants shared that the workshop was very relevant to their needs.

- 1. Farmers were able to gain useful information about improving agricultural productivity, pest management, organic farming and water management.
- 2. The workshop provided information about seeds and seed management, which the farmers found beneficial.
- 3. The farmers were glad of the opportunity to interact with agricultural scientists and thus getting their queries answered.
- 4. The workshop would help farmers participate more profitably in market opportunities.
- 5. The farmers were happy to know about Carrefour and its commitment to the local community and the agricultural sector.

#### Workshop Scores:

	Very		Satisfactory	Scope of
Score to the workshop	good (4)	Good (3)	(2)	Improvement
Number	49	8	4	

#### **Sessions liked Most:**



Though the participants enjoyed all the session and found them relevant to their agricultural requirements, the session taken by Dr. P.C Jat was voted as most enjoyable. Dr P.C Jat led an interactive and informative session for the farmers where he spoke about effective water and weed management in an arid region such as Rajasthan. He

lectured in the native Rajasthani dialect and engaged the farmers in a friendly manner while allowing scope for discussion and doubt clearing.

#### **Recommendations by the Farmers:**

- 1. The farmers requested that more awareness camps be organized for their benefit especially those dealing with increasing agricultural techniques, advanced seeds and fertilizers and long term sustainable agricultural development.
- 2. The farmers recommended more platforms such as these awareness camps to increase their knowledge and interact with agricultural scientists.
- 3. Some farmers also recommended that experts visits their field directly and provide them feedback pertaining to soil analysis, irrigation, pest management and the latest agricultural techniques suitable for the farmers' field.



### **IEC Materials**



#### **IEC Materials**

The following IEC materials were produced and disseminated by Good Works in the Camp:

1. **Literature booklet**- A booklet was developed with the text supported by images. The booklet was developed with the view that it can be carried back home and serve as a reference manual to the participants. It included the following topics:

- Techniques of Arid Fruit Cultivation
- Organic Vegetable Cultivation
- Water Management & Weed Management
- Integrated Pest Management
- Drip Irrigation
- Nutrients in Fruits and Vegetables
- 2. **Power point presentations** were specifically developed & carried with them by the resource people to support the discussion.
- 3. A **Pamphlet** with detailed information on Carrefour was also distributed as a reading material for the participants. The pamphlet basically described the following main things:
  - Background of Carrefour.
  - Community Interventions of Carrefour- mission/ vision.
  - Linkages with farmers worldwide through Carrefour's Quality Line.
  - Benefits of farmers associated with Carrefour.

Since, the targeted beneficiaries speak and understand Hindi, the language used was Hindi. All the discussions were also done in Hindi.



## Resources from IARI



#### **Resources from IARI**



**Dr. Shaitan Singh Rathore**: He is currently the **Program Coordinator** at the Krishi Vigyan Kendra in Chomu district, Rajasthan. He is in charge of undertaking all the concerned activities related to extension work. He has pursued his PhD in the field of agriculture extension. His achievements include publishing research papers in national and international Journals and writing articles and booklets on specialized topics. He has

been an active participant of various National symposiums, TV programs and radio shows.



Naval Kishore Gupta: He is currently working as the Subject Matter Specialist (Horticulture) at Krishi Vigyan Kendra, Chomu district, Rajasthan. He has worked as Course Coordinator for the One-Year Training Program for the last ten years. He has especially worked towards the installation of Drip Irrigation System under Vegetable production for the last four years under the Public Private Partnership Project. He has attended many

national training program, seminars and workshops at the National Institute of Agriculture. He has won Shreshtha Krishi Lekhak Puruskar Awarded by Samay Kon in the year 1998.



**Dr. R.K. Gangwar** : He is currently working as a **Subject Matter Specialist (Integrated Pest Management)** at Krishi Vigyan Kendra, Chomu district, Rajasthan. He has done his Ph.D in Plant Pathology. He won the "IPS Travel Sponsorship Award 2004" awarded by the Indian Phytopathological Society during the 56th Annual Meeting and National Symposium on "Crop Surveillance, Disease Forecasting and Management, held at the

Division of Plant Pathology, IARI, New Delhi. He also received "Commendation Certificate of Prof. M. J. Narasimhan Academic Merit Award 2006" awarded by the



Indian Phytopathological Society during the 58<sup>th</sup> Annual Meeting and National Symposium on "Emerging Plant Diseases their Diagnosis and Management" held at Department of Botany, University of North Bengal, Siliguri (W.B.). He also won a "Commendation Certificate" from the Harit Kranti News Paper in 2009. So far, he has published numerous research papers, articles and books on his field of specialization.



**Dr. Sushil Kumar Sharma**: He is currently the **Subject Matter Specialist** (Soil) at Krishi Vigyan Kendra in Chomu district, Rajasthan and has been for the last 14 years. He conducts on-farm and off-farm training and demonstrations for farmers. He is working as the Incharge for Soil and Water Testing Lab and analyzing micro and major elements in soil and water. His achievements include conducting national trainings, seminars and

workshops, writing articles, research papers, training modules etc.



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