

CASA reporting on Forum meetings

Contributed by Shiva Yadav
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CASA constituted a forum of stakeholders (farmers, scientists, subject specialists and manufacturers) to discuss the emerging issues of farming communities and to find out the best ways for their management.

Reports on two meetings are given below.

Report 1 on 'Stakeholders Interaction Meeting to discuss Conservation Agriculture Issues'
Date and Venue

January 21, 2006 at the Conference Room, Central Soil Salinity Research Institute (CSSRI), Karnal

Sponsor

The Centre for Advancement of Sustainable Agriculture (CASA), New Delhi and Central Soil Salinity Research Institute (CSSRI), Karnal, jointly organized the meeting.

Participation

In total there were about 75 participants. These included about 35 farmers from Karnal district, in particular from villages Darar and Dadupur, officials of the Department of Agriculture, scientists from several organization including CSSRI, CASA, Directorate of Wheat, Rice-Wheat Consortium, Agricultural University Regional Research Station and representatives of the farm machinery manufactures.

Deliberation

Welcoming the participants Dr. S.K. Gupta, Head, Division of Irrigation and Drainage CSSRI, highlighted that the region which was at the center stage during the green revolution era of seventies and eighties was now threatened due to a number of factors. The farmers of the region are facing the pinch and that maintaining and enhancing the productivity was a major challenge before the scientific and farming communities.

Dr. Gurbachan Singh, Director, CSSRI, reminded the participants that the region was extensively affected by high water table conditions (water logging) and salt affected soils in 60s and 70s. The technologies evolved by CSSRI were a significant factor in reclamation of large alkali affected areas, which involved growing rice and adopting vertical drainage through tube wells. These strategies, which once contributed to, increased productivity now required to be re-examined. Declining soil fertility, falling groundwater tables, groundwater pollution resulting from injudicious use of farm chemicals was now a threat to sustainability and profitability of rice-wheat cropping system. Increasing climatic aberrations and uncertainty was yet another significant factor contributing the instability in production. Adverse impact of one-day of frosty weather on crops like tomato, potato, mustard and other crops which the farmers were trying to bring in to adjust as a substitute to rice-wheat cycle was cited. To solve new generation problems, Dr. Gurbachan Singh, stressed, required new ways of doing things. Most important amongst these was to develop a strong interface between scientific and farming communities. The theme Conservation Agriculture would call for building partnerships amongst concerned stakeholders and today's meeting was a step in the direction.

Dr. I.P. Abrol, Director CASA, welcoming the participants suggested that the main objective of one-day meeting was to create a forum that should enable interaction on a regular basis among the key stakeholders involved in sustainable use of natural resources. Conservation Agriculture practices were the key to efficient use of soil, water and biological resources, reversal of resource degradation and sustained high productivity.

The proposed forum, Dr. Abrol elaborated, will aim to focus on:

- Building partnerships and a culture of working together amongst farmers, scientists, development agencies and machinery manufacturers;
- Enhance farmers' knowledge and understanding of issues of sustainable resource use and management;
- Facilitate information exchange amongst partners.

The key elements of Conservation Agriculture, viz. laser land leveling, raised bed planting / furrow irrigation, minimum disturbance of soil (eg. through zero tillage), surface management of crop residues and adopting crop rotations, according to Dr. Abrol had been found effective to enhance use efficiency and reduce degradation and had found wide acceptability by farmers. The key issue was to

continuously improve upon the scientific basis for improved management under varying resource situations.

In the following discussions several Conservation Agriculture and related issues were flagged.

A brief summary is as follows:

Tillage and Residue Management

A number of participants narrated their experience with zero-tillage machinery. They were all of the view that the technology was very beneficial – it resulted in savings of about Rs. 1000 to 2000/ha on account of cost of cultivation, permitted timely planting and also enhanced yields. However a number of important observations were made.

Several farmers expressed that while they had been adopting zero-tillage for planting wheat for several years, many farmers had started to opt for 2-3 harrowing with or without planking. One reason cited was the emergence of new set weeds/ pests.

Manual / combine harvesting of rice leaves 30-45 cm high stocks which get entangled in zero-tillage drill resulting in non-uniform seeding and poor germination of wheat. This prompts the farmers to burn the residues although farmers appreciate that burning residues is not desirable. Availability of equipment (eg. Happy Seeder) which overcome some of the problems was brought out.

Wind had adverse effect on germination particularly in zero-till drill seeded crop. Role of mulches in overcoming the problem was indicated.

There is need for standardized design and improvements relating to size of furrow openers, operation of side drive wheel and operation of the machine during turning in the field.

Availability of zero-tillage drill is particularly a constrain for small farmers – Availability of drills on a cooperative basis / facility of custom hiring would be of help.

Although zero-till drill was being subsidized there were questions of subsidy being properly managed.

Wheat Straw

Wheat straw left on soil surface / mixed in the soil has adverse effect on yield of subsequent crop. There is need to find ways to hasten decomposition of wheat straw. Possibility of using bacterial cultures was indicated. Role of Sesbania in this context was also pointed out.

Water Issues

A general consensus prevailed that lack of attractive

alternative to high-water demanding rice-wheat cropping system and lack of concern for efficient rainwater conservation and groundwater recharge was leading to declining water tables.

Escalating costs of pumping water from deeper groundwater aquifers using submersible pumps and associated socio-economic and environmental impacts were a real threat to the region's agriculture.

Desilting of village ponds and enhancement of groundwater recharge using rainfall and excess canal water after filtration through existing or abandoned tube wells has considerable potential to reduce declining water table trends.

Furrow irrigation of bed planted crops and alternate / inter cropping strategies offered opportunities for enhanced use-efficiency at field level.

Other options, which must be considered, include govt. subsidy for lining watercourses, adopting of sprinkler and micro irrigation system.

Involving farmers in monitoring the state of soil and water resources through appropriate mechanisms was considered important.

Climate Issues

Attention was repeatedly drawn to increasing aberrations in climatic parameters (frost, cold and heat waves, sudden fluctuations in temperatures etc.) adversely affecting crops. Issue of compensation / insurance and technological options to overcome / reduce the adverse effects were raised.

Enhancing information exchange / communication

Considering the opportunities offered by phenomenal growth in tele-communication and information technologies participants stressed the need to strengthen mechanisms whereby the farmers would have easy access to timely information on weather, good agricultural practices, markets etc. The availability of toll free telephone facilities / Internet based access to information etc. were highlighted as the urgent needs.

Follow up Action

To facilitate appropriate activities and to make progress in achieving goals of Conservation Agriculture participants unanimously felt that there was need for a forum to enable regular interaction amongst stakeholders to evolve ways to address the critical issues.

A suggestion was made to constitute a committee representing all stakeholders to take further action.

Some names were suggested to represent on this committee but it was left to Director CSSRI and Director CASA to finalize the composition for follow up.

Suggested Members

Scientists – S.K. Kamra, CSSRI; Samar Singh, DWR, RWC

Mukesh Yadav,

CASA, Kali Ram, Deptt.of Agriculture

Farmers – Bhavneet Singh, Nawab Singh, Kapur Singh, Rai Singh, Mahavir Singh

Industry – Kapil Kumar (Beri Udyog)

Vote of Thanks

Dr.
S.K. Gupta proposed a vote of thanks

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Report 2 on ‘Interaction meeting of Stakeholders’ representatives to discuss Conservation Agriculture future strategies’
Date and Venue

Feb. 27, 2006. Conference Room, CSSRI, Karnal

Sponsors

CASA and CSSRI jointly organized the meeting.

Participation

Following representatives of stakeholders attended the meeting:

1. Dr. I.P.Abrol 098107-72161

2. Dr. Gurbachan
Singh 0184-2290501

3. Dr. S.K.Kamra 94161-09968

4. Dr. Kali Ram 94162-18760

5. Dr. Mukesh
Yadav 94166-76905

6. Mrs. Shiva
Yadav 94166-09599

7. Sh.

Mahabir Singh 01686-251070

8. Sh.
Rai Singh 98133-18550

9. Sh.
Bhavneet Singh 98966-55070

Deliberation

In his opening remarks Dr. Gurbachan Singh welcomed the participants and explained the background. Dr.

Abrol briefed the proceedings of previous stakeholders' interaction meeting and expressed the need to formulate activities and objectives of the forum. Dr. Kali Ram, Block Agriculture Officer and farmers shared their experiences in Conservation Agriculture. As a result of follow up deliberations several points emerged.

Group Membership

It was felt that there is need to enlarge the group by including 10-12 farmers' representatives who could guide the efforts of the group. Members were requested to make suggestions.

Objectives of the Forum

It was felt that while the broad objective of the forum was to promote the cause of Conservation Agriculture there is need to spell out specific objectives that the group would try to achieve. It was decided that a clearly spelled mission statement and objectives should be placed and approved in the next meeting.

Activities

There was considerable discussion on the activities which the forum members should undertake and promote. Issues raised included promoting wider use of laser equipment for land levelling; planting crops on beds in furrow irrigated; trying out alternate crops particularly maize (winter and summer); short duration pigeon pea; soybean etc. The need for defining ways to promote better communication between farmers and scientific community and amongst farmer groups was highlighted. It was felt that from the next meeting there was need to develop a structured agenda to enable take decision with respect to different activities.

Funding

The need for appropriate funding arrangements to organize activities of the forum was discussed. It was felt that once the forum has developed clarity on objectives and has identified broad set of activities, we could approach funding agencies for support.

Next Meeting

It was decided to hold the next meeting early and preferably in the first week of April. So that activities to be undertaken in the Kharif season are planned well in time.

