



**Consortia Research Platform on Conservation
Agriculture**

**Central Institute of Agricultural Engineering
Nabibagh Berasia Road Bhopal 462 038**

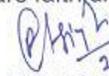


Dear Sir / Madam,

22 Feb 20116

Kindly find enclosed herewith the minutes of Meeting- cum- training programe held at ICAR- Central Institute of Agricultural Engineering, Nabibagh, Berasia Road, Bhopal (M.P.) during 29-30 Jan 2016

Yours faithfully


22.2.2016

Dr. R.C. Singh

Head, (AEP) and PI, (CRP on CA)

Proceedings of interaction meeting cum training programme on Consortia
Research Platform on Conservation Agriculture
ICAR- Central Institute of Agriculture Engineering
Nabibagh, Berasia Road Bhopal- 462038 (MP)

CRP on CA/01
16.2.16

Day-1
Inaugural Session

को. कु. अ. सं. बhopal
संख्या 1532
दिनांक 17/2/16

Date: 29.01.2016

Time 11.00-12.00

Venue: Director's Committee Room

Participating Institutes: ICAR-CRICA, Hyderabad, ICAR-IIFSR, Modipuram, ICAR-IISS, Bhopal, ICAR-IARI, New Delhi, ICAR-CIAE, Bhopal, ICAR-DWR, Jabalpur, ICAR-RCER, Patna, ICAR-CSSRI, Karnal, ICAR-CRRI, Cuttack, ICAR-IIWBR, Karnal, ICAR-NIASM, Baramati

Two days interaction meeting cum training programme under Consortia Research Platform on Conservation Agriculture was chaired by Dr. K. C Pandey, I/c Director-CIAE Bhopal. On this occasion Dr. A. K. Shukla I/c Director-IISS Bhopal and Dr. A. K Biswas, Lead Centre Project Coordinator (LCPC) were chief guest and guest of honour respectively. Dr. RC Singh, PI of the CIAE centre welcome all the participants and briefed the objectives of interaction meeting-cum-training programme. Guest of Honour, Dr. A.K. Biswas gave a brief introduction about Consortia Research Platform (CRP) and heighted limitations faced in adoption of CA machinery. He revealed that major constrains of the adoption of CA practice is due to non availability of suitable CA machinery and proper weed management. The chief guest of the session Dr. A. K. Shukla, in his address emphasised on development of new machines suitable for CA practices. The chairman of the session urged/asked all the partners of CRP to join hand to achieve the objectives of CRP. The session was ended with vote of thanks proposed by Dr. Dushyant Singh, Co-PI of CRP on CA.

After inaugural session there were two presentations. In first presentation Dr. AK Biswas, LCPC, presented the issue and objective of CRP on CA with special reference to tillage, residue management and crop establishment. In his talk he mentioned the key challenges, mission, objectives, output, benefits and impact of this project. He focused on

Dr. Dushyant Singh
A.M.D.
Pl send to
members of
CRP on CA
18/2/2016
Members to PI - NCRCA
at the end by the Dr. P. S.
17/2/16

different constraints faced in adoption of CA practices and also informed the partners about budget and its allocation for financial year 2015-16.

Dr. RC Singh, PI of CRP on CA of Bhopal Center enlightened the CA partners about Engineering Intervention made/done by various organizations in Conservation Agriculture. He informed the participants about the merit and limitations of different CA machinery like bullock drawn no-till, tractor drawn no-till seed drill, happy seeder, slit drill, strip drill etc. He also discussed different agricultural mechanization issues related to CA.

Demonstration of Conservation Agricultural Machinery

In the afternoon on 29/01/2016 demonstration of CA machinery was organised. Er. Manish Kumar, Scientist with the assistance of Er. MPS Chauhan, ACTO and Shri Umesh Kumar, TO arranged demonstration of Happy seeder, Differential depth fertilizer applicator, Rotary assisted bed former cum seeder, Bed former cum seeder, Pre-emergence herbicide applicator, Zero seed drill, Slit till drill, Strip till drill to the participants.

Day: 2

Date: 30.01.2016

Time 10.00-13.30

Venue: Director's Committee Room

Technical Session

on

Location Specific CA Machinery for different Cropping System

Chairman: Dr. RC Singh, PS, Head-AEP Division & PI – CRP on CA, Bhopal

Co- chairman: Dr. AK Biswas, PS, Head- Soil Chemistry and Fertility Division & LPCC-
CRP on CA Platform

Rapporteur: Er. Manish Kumar, Scientist, CIAE Bhopal

The session was started with welcome address of chairman and co-chairman. In the session all PIs Associated Scientists of centres presented ongoing activities carried out at farmers' field or institute research fields and different issues related to conservation agriculture were also discussed. The main focus of discussion was on problems pertaining to conservation agricultural machinery.

Following were the highlights of the session

- **Refinement/fine tuning of existing CA machinery**
 - Happy seeder to make it suitable (blockage free) in heavy residue condition (above 6 t/ha)
 - Other existing CA machinery.
- **Development of new machines**
 - Precision planter with herbicide application.
 - Weed cutter without soil disturbance.
 - Straw management system for combined harvest field.
 - Development of no-tillage implements for black soil.
 - Development of suitable strip till drill for vertisol region.
 - Rice transplanter under residue condition.
- **Studies on various issues**
 - Adoption of CA machinery in various condition specially in dry and rain-fed conditions.
 - Weed and termite management.
 - Failure of pre-emergence herbicide applicator in Khariff season.
 - Nutrient management.
 - Use of crop residue for livestock & fuel.
 - Hindrance in incorporation of pre-emergence herbicide in laying straw conditions.
 - Germination of seeds with happy seeder when straw is wet.
 - Blunting of straw with rotary disc.
 - Top dressing urea in Conservation Agriculture practices.

Suggestion & comment by chairman & co-chairman/others

- Dr. Biswas advised all the centres to focus more on the experiments carried out under Conservation Agriculture practices in the farmer's field, compare the results with existing farmers' practices and not to incorporate the residue after sowing in no-till condition. He appreciated the work carried out at IARI and asked all centres to follow the same and present the research results in next meeting.
- Dr. RC Singh was of the opinion that while purchasing of any no-tillage implements, researchers should be more careful as high clearance is required to avoid blockage while

working. He suggested the use of straw shaver before no-tillage seeding operation and explained the benefit of permanent raised bed and its adoption in farmer's field. He advised to calculate the cost & energy involved in various operations.

- Dr. Pratibha PI-CRIDA center revealed that in rain-fed agriculture, incorporation of heavy residue does not perform well in comparison to conventional practices. She informed that Direct Seeded Rice (DSR) with micro sprinkler system gives better result as compared to other.
- It was decided that a committee may be constituted to define various terms used in Conservation Agriculture principles.

The session was ended with the remarks of chairman and co-chairman.

Closing session

Closing session was held on 30.01.2016 in afternoon. Dr. R C Singh, PI gave brief remark about two days activities. Co-chairman Dr A. K. Biswas, LCPC (CRP on CA) and Honourable Chairman Dr. K. K. Singh Director, ICAR- CIAE, Bhopal addressed the participants and congratulated organisers on the success of the event.

Visit to IISS:

The participant visited the ICAR-IISS after closing sessions and saw the various activities of Institute to related to Conservation Agriculture.

~~Director~~ 16/02/16
PI- NICRA

Pratik
(R.C. Singh)
PI, CRP on CA