Outcomes of the Meetings of HAU and CIMMYT-CSISA Scientists with the Director Agriculture, and Senior Officers of Govt. Haryana on Dec 03, 2010 in the Directorate, Panchkula, chandigarh.

On behalf of the CIMMYT-CSISA Team, Dr. ML Jat made a presentation on the proposed action plans. After in-depth discussions we agreed on under mentioned points to carry forward the plans for enhanced sustainability of the agriculture in Haryana.

- 1. A team led by Er. Chahal will visit Fazilka/Bhantinda to interact with the cotton growers who have planted wheat in standing cotton as a relay crop. The team will meet farmers and get first hand feedback on yield gains in wheat due to timely seeding of relayed wheat crop. The department will buy few prototypes of the relay seeder machines for wheat sowing in cotton (Action: Dr Duggal, Er, Chahal and HS Sidhu CIMMYT-CSISA).
- 2. Er. Chahal will visit few PACS in Punjab with Dr. HS Sidhu (CSISA Hub Coordinator) to assess the single window implement model. In this Model, CA all machinery are being provided to PACS for rental use by its members. Haryana will try to emulate the model at few places and remove any bottleneck faced in Punjab.

(Action Er. Chahal and HS Sidhu CIMMYT-CSISA in consultation with Mr. Sangha, Registrar PACS, Punjab).

- 3. Department of Agriculture, Haryana will get some combine harvesters fixed with straw spreaders (SMS) to allow farmers look at the benefits of spreading crop residues in immediate planting operations, nutrient recycling and saving in water through retention and air quality pollution through residue burning. CIMMYT-CSISA has already taken actions to fix SMS (straw management spreaders) devices on few combines as will. This will be ready before wheat harvest. (Action: Mr. Chahal to identify the service providers, make provisions for identified combines and HS Sidhu and BR Kamboj to provide technical protocols)
- 4. Immediate action was contemplated for seeding wheat with rice residues retention using Turbo-Happy seeder in some basmati areas of Haryana (Action: Dr Duggal and Chahal with help from Dr, Kamboj).
- 5. Director Agriculture, Mr. Ashok Yadav will take a meeting of ADAs/DDAs and Haryana machinery manufacturers to convey them concerns of the Expert consultation as under:
 - A. Subsidy on rotavator will be stopped from next year. If there are any left funds in machinery head for the current year, DOA will relocate them on turbo-Happy seeders and the Multi-crop planters.
 - B. Haryana manufacturers will be asked to produce zero-till machines with multicrop seed metering systems and Zero till tines (inverted/chisel openers) with narrow slit openers. Manufacturers producing drill with shovel type openers and wide slits fixtures will not be given any subsidy as it was considered as counterproductive measures to promotion of conservation agriculture.
 - C. Dr. Duggal, Er. Chahal and their staff will visit machinery factories and ensure that sub standard ZT machines do not find their way into the market place and or given subsidy in the category of ZT planters.

- D. All the DDAs will conduct demos of green gram relay planting in standing wheat. Dr. Kamboj will provide protocols in a fortnight on behalf of CIMMYT-HAU. CIMMYT will conduct 200 trials in Haryana and Punjab to promote the practice and to generate data on the benefits of relay cropping on wheat productivity and additional income to farmers. Dr. Duggal, ADA informed that the Director Agriculture, GoPunjab has also agreed to extend his full support to this to reduce terminal heat shocks in wheat season.
- E. Mr. Yadav, DA will ask the HSDC to fix the mungbean seed price of SML 668 in a week's time so that CIMMYT-CSISA can procure and plan its trials well in advance. ADA/DDAs will play a proactive role in expanding these demos to other village clusters.
- F. A meeting will be organised on 8/9 in Karnal where CIMMYT was requested to showcase all the CA machinery to agric. Engineers, GoH and also show them the results in fields, if time permits.
- G. It was suggested by the University scientists that late planting high yielding timely shown varieties need to be promoted such as to promote farmer participatory seed production and for improving the seed replacement rate in the state.

Action: Department of Agriculture. Dr. Kamboj/Dr. HS Sidhu to procure mungbean seed and lay out trials as per approved CSISA plans and also help the DDAs for a multiplier effects