

SUMMARY AND PROGRESS OF FIRST CALL PROJECTS

Project Title: Improving livelihoods of resource poor farmers through on-farm seed priming in Western Hills of Nepal (141/059/060)

Co-ordinator: Dr. Kehsab Babu Koirala

Address: Regional Agricultural Research Station, Lumle, Kaski

Duration: 3 years (Nov. 2003 to Oct. 2006)

Budget: NRs. 1,067,200

Location: Farmers' field in Gorkha, Myagdi and Palpa districts, agro-ecological and outreach research sites [Gaunshahar, Lamjung; Chambas, Tanahun; Deurali, Palpa; Bhakimli, Myagdi and Pakuwa, Parbat] of ARS Lumle.

Purpose: Increase productivity of maize and lentil in western hills of Nepal

Outputs:

1. Advantages of primed seed of maize and lentil over non-primed in marginal environments of western region identified.
2. On-farm seed priming technology in the region verified and disseminated and maize and lentil production in the region increased

S. N.	Activities	Progress
1.1	Training on seed priming organized	At all sites training was organized separately both for maize and lentil. A total of 286 farmers (201 female and 85 male) got training on seed priming. The training covered project's objectives, advantage of seed priming on maize and lentil, things to be considered while adopting the technology, importance of mother baby trials were presented and discussed
1.2	Experimentation on seed priming at different locations	Experiments were carried out at three sites of Gorkha (Shikharkot, Birenchowk and Katteldanda), Myagdi (Ratnechaur-1, Ratnechaur-5 and Khabara Jyamrukkot) and Palpa (Khasauli, Deurali and Nayarnamatalesh). Four varieties of maize (Manakamana 1, Manakamana 3, Rampur Composite and Hill Pool White) and Lentil (Khajura masuro 2, Shikhar, Simal and Shishir) with primed and non primed treatments were evaluated in farmers' field. The "Mother Baby Trials" methodology" was used for experimentation. In baby trial, a single variety (1 kg each of maize and lentil) was given to four farmers in each VDC and asked to prime half in water, surface dry and snow using normal practices adjacent to plot non-primed seed. For mother trial, a complete set (four improved varieties and one local as check) was tested in farmer's field. The mother provides the opportunity to farmers, extension workers and researchers to compare and evaluate them in one spot.

1.3	Participatory evaluation of experimental plots by farmers, researchers and extension workers in each district	Participatory farm walks were conducted once during each crop season in each three VDCs of three districts to promote discussions among farmers about the advantages and disadvantages of the technology. It was conducted just before harvest when germination, crop establishment, growth and weed control, duration and yield issues could be discussed. These walks allowed individual farmers to assess the technology over the wide range of sowing dates, soil types, varieties and levels of management. Farm walks followed by focus group discussion in which farmers were asked to make decisions on the merits and demerits of seed priming relative to their normal practices																		
1.4	Data collection, compilation and report writing	<p>Researches and DADO staff from the experimental plots recorded data from mother trails. Household levels questionnaire (HLQ) and focus group discussion were used to get farmers' feedback regarding the technology. The following points were included both in HLQ an FGD</p> <table border="0"> <tr> <td>Ease of sowing</td> <td>Early germination</td> </tr> <tr> <td>Better plant stand</td> <td>More vigorous growth</td> </tr> <tr> <td>Weed problem</td> <td>Days of flowering</td> </tr> <tr> <td>Stalk diameter</td> <td>Plant height</td> </tr> <tr> <td>Disease problem</td> <td>Insects problem</td> </tr> <tr> <td>Lodging problem</td> <td>Resist dry spell</td> </tr> <tr> <td>Days to maturity</td> <td>Ear size</td> </tr> <tr> <td>Grain production</td> <td>Stalk production</td> </tr> <tr> <td>Intension to prime next year</td> <td></td> </tr> </table>	Ease of sowing	Early germination	Better plant stand	More vigorous growth	Weed problem	Days of flowering	Stalk diameter	Plant height	Disease problem	Insects problem	Lodging problem	Resist dry spell	Days to maturity	Ear size	Grain production	Stalk production	Intension to prime next year	
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2.1	Preparation of training materials in Nepali [Leaflets, Brochures, Posters, and Pamphlets]	Training/extension materials (Booklets, leaflets and posters) on seed priming have been published																		
2.2	Training to farmers, researchers, extension and development workers	Training were organized at Gaonsahar Lamjung, Walling municipality-6 and Tin Dobate-6 Syangja, Bhanu VDC-8, Jamune-1and Byas Municipality-5, Tanahun; Pulachaur-7 and Arthunge, Myagdi; Pakuwa 6 and 7, Parbat; Tigaha 2 and Tansen municipality-12 Palpa; Phinam-8 and Bungkot-8 Gorkha																		
2.3	Demonstration of most promising varieties under seed priming	Among the experimented four varieties each of maize and lentil under prime and non prime treatments, farmers in Gorkha and Palpa preferred Manakamana 3, Hill Pool White and Rampur Composite whereas in Myagdi farmers preferred Manakaman 3 and Hill pool white maize varieties. Farmer preferred Shishir and Khajura Musuro-2 in Myagdi where as Shikhar and Shishir in Palpa. These preferred varieties of both crops were demonstrated in the second year of the project under prime and non-primed conditions																		
2.4	Farmers' Field celebration at each site in each district	Farmers' field day was celebrated at all the sites in both the crops. Representative from respective Agriculture Development Office, farmers, researchers and media personnel were participated in the program.																		
2.5	Inter-district observation tour of stakeholders	Inter-district observation tour was organized where farmers, ADO representative, LI-BIRD representative, National Grain Legume Program and researchers from Regional Agricultural Research Station (RARS, Lumle) participated. In the program, group from Palpa and Myagdi visit the Gorkha and Group from Gorkha visit the Palpa.																		