

Community Seed Banks: Early lessons learned by the Bean Technology Dissemination Project in Central America and Haiti

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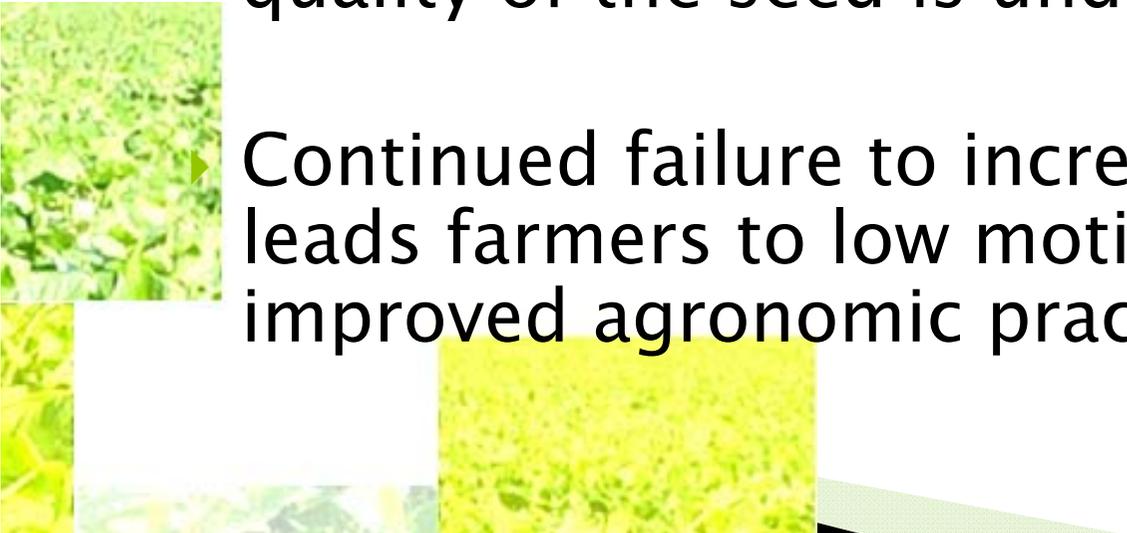
MICHIGAN STATE
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Improved bean seed availability in Central America and Haiti

- ▶ Over 10 improved seed varieties with proven positive results have been available for over 5–10 years, but poorly disseminated
- ▶ Farmers continue to obtain seed from seed and grain markets where the source and quality of the seed is undetermined



▶ Continued failure to increase productivity leads farmers to low motivation to invest in improved agronomic practices

Bean Technology Dissemination (BTF) project contribution

Disseminating a Technology Package for Smallholder Farmers

1. Quality declared seed (20bs / 10kg) of improved bean varieties
2. *Rhizobium* inoculum (25gr of inoculant (mixture of strains))
3. Technical assistance and training (e.g., soil management, use of compost, IPM, seed and grain handling, etc.)



Rhizobium inoculation demo





FRIJOL CRISP

CALIDAD RECOMENDADA DE SEMILLA PRODUCTIVA

A SU ALCANCE GRACIAS AL APOYO TECNICO-FINANCIERO DE:



USAID
FROM THE AMERICAN PEOPLE



MICHIGAN STATE
UNIVERSITY

ESTA BOLSA CONTIENE

SEMILLA DE FRIJOL
VARIEDAD



ICTA PETEN



ICTA LIGERO

PESO NETO:

20 LIBRAS

FECHA DE PRODUCCION:

ABRIL 2011

GERMINACION:

97%

RECOMENDACION DE ALMACENAMIENTO

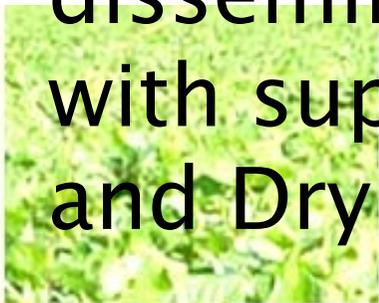
Esta semilla de calidad recomendada debe mantenerse en un lugar fresco, para que mantenga su poder germinativo, debe permanecer en la bolsa sellada hasta el momento de la siembra.

NO ES APTA PARA CONSUMO

Para más información...

Key results during the first year (Oct 2010–Sep 2011)

- ▶ Over 20,000 small farmers with access to improved bean seed
- ▶ Over 5200ha cultivated with improved varieties
- ▶ 11 improved seed varieties disseminated that were developed with support from the Bean/Cowpea and Dry Grain Pulses CRSPs.



Community Seed Banks (CSBs)

- ▶ 207 CSBs established; 200 in Nicaragua and 7 in Guatemala



What are CSBs and how they work?

- A small group of farmers commits to work together to ensure their “seed security”
- A progressive farmer is designated as a “Promoter”
- The Bank is capitalized with “registered seed” of improved varieties of their choice plus other yield enhancing technologies.
- The Community Bank multiplies and stores seed for future plantings.
- A NARO provides technical assistance on seed production
- Seed made available to both members and other farmers in community





- Provides access to certified seed and technology package
- Capitalizes the bank with the initial investment to produce, condition and store seed
- Updates CSB (varieties, agronomic practices, etc.)

- Trains farmers
- Interfaces with NARO/NGOs
- Addresses needs and helps with management of the CBS

- Organizes members
- Multiplies varieties under seed production technology package
- Conditions seed
- Stores
- Disseminates
- Recovers seed for the bank

CSB Collaboration Dynamics

The CSB key assumptions about smallholder farmers

- Are interested in obtaining improved quality seed if the cost is right (close or equal to grain prices)
- Are willing to organize in exchange for improved seed and other technologies
- Small farmers recognize beans as a cash crop for income generation
- Are willing to test and potentially adopt improved technologies



Experience with CSBs in Latin America

- ▶ The concept is not new in Latin America
- ▶ FAO and CIAT have worked in Community Seed Banks in the Andean and Central American regions since 2007
- ▶ INIAP in Ecuador has taken special interest in organizing CSBs for leguminous crops and Andean grains
- ▶ INTA in Nicaragua has worked with the concept for nearly 4 years
- ▶ The BTD project (INTA and ICTA)





Sustainability of seed systems

1) Reaching a broader network of farmers through public or private sectors in developing countries remains expensive (high transaction cost of delivering seed) and unprofitable (Cromwell et al., (1992, 1997); Wiggins and Cromwell, 1995)

2) Development interventions in recent years have led to success stories as long as there is donor support. (Witcombe, et al., 2010; Trip and Rohrbach 2001)



CSBs key sustainability factors

- ▶ Enhancing the “seed security” and
- ▶ Facilitating CSB member access to “registered” seed of improved bean varieties of their choice
- ▶ Promoting farmer ownership of the seed multiplication process
- ▶ Reduced logistics costs for access to seed by growing locally



CSBs key sustainability factors (continued)

- ▶ Encouraging farmer–auditing of fields to corroborate seed quality from planting through seed conditioning
- ▶ Affordability:
 - Cost of seed to the bank: \$1.50/kg*
Twice as much the regular cost of producing grain under usual practices.
 - 2011 cost of certified seed \$2.90/kg



CSBs key sustainability factors (continued)

- ▶ Reducing community and region-level vulnerability to seed shortages
- ▶ Addressing emergency food security needs
- ▶ Some farmers become “dedicated” seed producers



CSBs advantages for donor- and NARS-financed programs

- CSBs promote a “partnership” between beneficiaries and support programs (support and cooperation goes both ways)
- CSBs can be designed according to the idiosyncrasy of each community
 - Farmers can pay back seed in more than one way
- Although not all CSB end in success, CSBs are easy to start-up which can permit many repetitions (success rate in Nicaragua = 79%)



Short-term plans around CSBs

- ▶ Continue to invest in CSBs in Central America in 2012 and in Haiti in 2013
- ▶ Pulses CRSP to evaluate and understand what makes the model succeed or fail
 - Information-sharing with all Pulses CRSP stakeholders, particularly in Africa and Asia



Conclusions

- ▶ The CSB model for multiplication and dissemination of improved bean seed varieties has resulted in positive results
- ▶ Evaluation of current model and its variations is under way
- ▶ Trying “adapted” versions of CSBs is highly encouraged by our experience

