# Horticulture Innovation Lab Regional Centers in Thailand



### Overview

The Horticulture CRSP Regional Center of Innovation at Kasetsart University will serve Thailand, Bangladesh, Nepal and Cambodia by providing:

- · Training for farmers and horticultural professionals
- Technical assistance and innovative technologies
- Curricula and material development
- Information dissemination

The center brings together key regional players to improve livelihoods of poor farmers and small businesses in Asia.

### Objectives:

- Enable and promote adoption of horticultural technologies
- Facilitate human capacity building
- Undertake appropriate research
- Encourage entrepreneurs to utilize and manufacture innovative technologies
- Serve as a knowledge repository and disseminate information
- Provide training for professionals, on-site and across the region
- Promote economically and environmentally sustainable agricultural production among small- to medium-sized farms, especially those managed by women.





The Horticulture CRSP Regional Center of Innovation at Kasetsart University officially opened in February 2012 (left) and hosted an exhibit at Horti Asia in May 2012 (above).

## Ongoing activities:

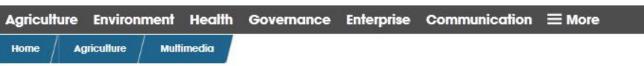
- ▶ Set up technologies and build research plan
- Host visits by Horticulture CRSP Pls and provide facilities for project-related training
- Organize training programs to be delivered by center partners at locations throughout the region
- Conduct adaptive research to demonstrate and modify Horticulture CRSP technologies to fit local conditions
- Outreach to local industries/entrepreneurs to produce and market technologies
- Highlight technologies in workshops/trainings where they can demonstrate important principles





### Bringing science and development together through original news and analysis





## Simple agricultural innovation to empower farmers





# More workshop/training activities (Output 6) workshops for farmers and industry

- Post harvest trainings in KPS (May 2012)
- Pre-training, Drying beads workshop (Oct 9, 2012)
- AVRDC annual training (with Mark Bell, 2012)
- Food Security Summer School (Nov 2012)
- ▶ Hort CRSP Technologies Training in Cambodia (with C. Trexler, July, 2013)
- Post harvest Conference (Aug 2013-14)
- Postharvest Management of Fresh Produce: Quality, Safety and Packaging (Aug 27-28, 2013)
- ▶ Hort CRSP Technologies for AgLearn: Cambodia (Sept 16-20, 2013)
- Hort CRSP Technologies for AgLearn: Nepal (Sept-Oct, 2013)
- AVRDC annual training (with Mark Bell and Britta Hansen 2013-14)
- Insect exclusion net technology training in Cambodia (2014)
- Value change and post harvest trainings in Nepal (2 times, 2014-15)



# More workshop/training activities (Output 6) workshops for farmers and industry

► IHC 2014 Horticulture Technology and Innovation: Regional Models for Research & Development

QUESTION: How can "innovation networks" be built to share information and experiences to improve the livelihoods of the world's smallest producers?





# Output 7: Curriculum development focused on technology innovation

- ▶ Need to share limited resources ... exchanges, training
  - Possible Double Degree in the future
- Meeting of Deans from leading Ag Universities in regions
- UNTA
- University Consortium ...
  - Thailand (KU), Malaysia (UPM), Indonesia (IPB, UGM), Philippines (UPLB), and Japan (TUA)
- Umbrella research programs (SEARCA)
- Possible collaboration (dual/joint research MSc/PhD)
  - Food & nutrition security
  - Agro-ecology
  - Climate change



# What collaborations with PIs have been done, and what has been the outcome?

- New Technology for Postharvest Drying and Storage of Horticultural Seeds (Kent Bradford)
- Innovative Energy Solutions in Horticulture (D-Lab, Kurt Kornbluth)
- Safe Vegetable Production in Cambodia and Vietnam: Developing the HARE-Network to Enhance Farmer Income, Health, and the Local Environment (Cary Trexler)
- Evaluating Small-Scale Postharvest Cooling and Drying Technologies in Various Climates (Lizanne Wheeler)
- Value chain + post-harvest trainings in Nepal (with Murarai)
- ▶ Conservation agriculture (with Manuel Reyes)



# How can other interested groups connect to these centers to benefit their own programs and projects?

### Scaling GLEE

Excursion, ... exhibition of 5 technologies

### Ag Learn

- Training and extension activities,
- Research/education collaboration with graduate students

### Rhino Research Group

Research on drying beads regeneration system

### Project Alba in Cambodia

- ▶ Training and extension activities, ... possible future research activity
- crop rotation, fertilizer program, mulching, drip irrigation, post-harvest, seed choice, compost and pest control
- Agro-Business and Quality Inputs for Agro-Inputs Retailers Network members (funded by CNFA)



# Drying beads workshop (Oct 2012)



## D-lab at Kasetsart KPS campus



THURSDAY, JUNE 28, 2012

### Introduction

19 April 2012

Hello everybody. We are Bradley, Jasmine and Majid and we are working with Zamorano University to design a process for making large quantities of BioChar. BioChar is the result of burning highly compressed agricultural waste under low oxygen conditions in a process known as gasification. It resembles Kingsford charcoal briquettes in size, appearance and density. Farmers can potentially use it as a soil additive to trap nutrients needed by crops



#### WATCH VIDEOS







ขับเคดือนโดย You Tub

#### ARCHIVED POSTS

▼ 2012 (2)

June (1) Introduction 19 April 2012 Hello everybody. W...

▶ May (1)

2011/12



## Training in Cambodia

- ▶ CoolBot, nets, soil solarization
- solar powered irrigation pump
- drying beads, ...



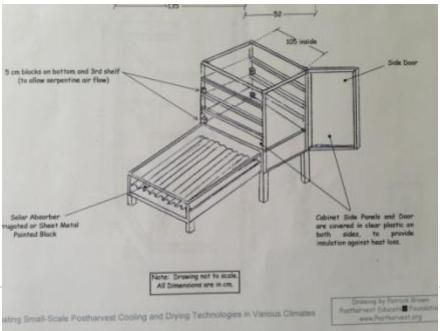




# Evaluating Small-Scale Postharvest Cooling and Drying Technologies in Various Climates (Lizanne Wheeler)







# Scaling GLEE





## Bangladesh Cambodia

# Ag Learn ... Nepal

- CoolBot
- Solar powered irrigation pump
- Nets
- Soil solarization
- Drying beads, ...





## Rhino Research Group

- Seed drying for storage
- Drying beads regeneration system





Latest News **Our Project** Our Team Social Enterprise Job opportunities Contact us SHARE # 90 # ...



### Partnership farming in developing countries

Project Alba adapts farmers production to market demand by partnering with them. We provide technical advice, tools and inputs while guaranteeing to buy the produce.





#### 26/02/13

### Production hits record highs

Production has been over 2 tons per week in the past 2 weeks, breaking past records for Project Alba.

#### 31/01/13

#### Ath Sophat: 1 year at Project Alba

Sophat is working at Project Alba since more than 1 year now !

#### 24/01/13

### We are recruiting an agronomist

Spread the word! Project Alba is recruiting an agronomist for a very result oriented position.













## Target countries training

## Bangladesh

Cooperate with Hellen Keller to introduce solar dryer to villagers in





## Target countries training

### Cambodia

- ▶ Cooperate with RUA to introduce CoolBot technologies, net house, solar pump, soil solarization.
- Cooperate with AVRDC to train university personnel and leader farmers
- Teaching farmers in Siem Reap to build different types of net house and growing vegetable using net house







## Target countries training

## Nepal

- Give consult and train university personnel and leader farmers to understand the important of post harvest handling and market chain.
- train university personnel and leader farmers for basic post harvest technologies









## In-countries training

- Training in Horticulture Innovation Lab technologies for University personnel, student and farmers.
- Training in post harvest technologies for University personnel, student and farmers.
- Cooperate with AVRDC to train Horticulture Innovation Lab technologies.







