



Rural Training Center-Thailand

2010 RTC-TH Sep Update

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c/o U. Suttisan, 84 Moo 2 Ban Na Fa, Jompra, Thawangpha, Nan Province, Thailand 55140

www.neighborhoodlink.com/org/rtcth

E-mail: rtc2k5@gmail.com

Community-based environmental education for the self-sufficiency and sustainability of small rural family farms

ชุมชนตามสิ่งแวดล้อมศึกษาเพื่อการพึ่งตัวเองและยั่งยืนชนบทขนาดเล็กครอบครัวฟาร์ม

You may post questions / comments to the Discussion area of our website

“Mary” Matinee Retires



The retirement ceremony honoring “Mary” Matinee.



Mary's retirement spirit ceremony



Appreciation from Ban Na Fa

“Mary” Matinee has been teaching at Ban Na Fa elementary school for 30+ years. She was one of Saifon's original teachers. “Mary” was an active supporter of REEEPP from the very beginning in summer 2004 when Saifon visited.

Thai government call to reform public education put the teachers in a tight spot. “Reform” was relatively undefined. The RTC-TH created REEEPP as a possible course of action. All of the teachers, administrators, and staff volunteered to undertake implementing REEEPP.

Thanks to dedicated teachers such as “Mary” the program is continuing under its own power with little RTC-TH input. 🌐



Students' appreciation gifts

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Many helping hands prepare decorations.



Teachers and villagers attend the ceremony.



Students staff the reception table.



Local villagers prepare food behind the scenes



Villagers working with the school cooks.



Willing hands distribute lunch to all the attendees.



"Mary" spends time chatting with her guests.



Many area head villagers and VIPs attend.

New Revised/Updated RTC-TH Publications

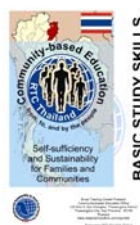
September was a busy month of catch up. Several devastating computer crashes made the recovery of RTC-TH materials and files a painfully slow process. The need to recover and update the files

was made more urgent by the desire to support the Community-based Education (C-bE) effort in Salt Lake City, UT. By the end of the month all the C-bE units were completed.

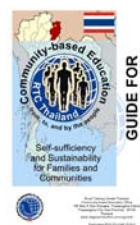
Many previous notes and documents used to create individual lessons were re-compiled into the Applied Geography series as more generic lesson modules.



CbE 2010-1



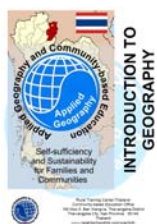
CbE 2010-2



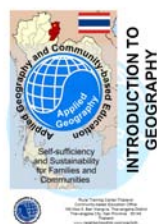
CbE 2010-3



CbE 2010-4



AG 2010-1



AG 2010-2



AG 2010-3



AG 2010-4



AG 2010-4-1



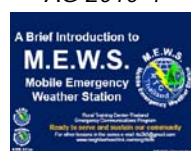
AG 2010-4-2

Major progress was made in completing 11 out of 17 new slide shows in the RTC-TH EmComm MEWS (Mobile Emergency Weather Station) series. (The the titles with the yellow highlighting are in progress and should be completed before the end of the year.

This series grew out of the weather observation series developed for the REEEPP effort at Ban Na Fa

Elementary School and the GROW (Getting Real On-farm Weather) program in sustainable agriculture. An important aspect of these

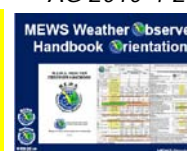
lessons is the inclusion of weather data to directly support helicopter flight operations. Other lessons are being planned for emergency preparedness awareness.



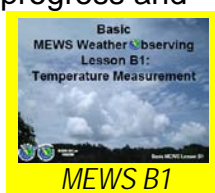
MEWS OA



MEWS OB



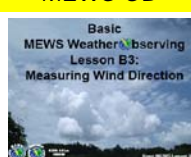
MEWS OC



MEWS B1



MEWS B2



MEWS B3



MEWS B4



MEWS B5



MEWS B6



MEWS B7



MEWS B8



MEWS A1



MEWS A2



MEWS A3



MEWS A4



MEWS A5



MEWS A6

Community-based Education (C-bE)		
Pub #	Title	Status
CbE 2010-1	RTC-TH Community-based Education	Done
CbE 2010-2	Basic Study Skills	Done
CbE 2010-3	Guide for Self-Learning	Done
CbE 2010-4	RTC-TH P.A.L. Curriculum Development Process	Done
Applied Geography (AG)		
Pub #	Title	Status
AG 2010-1	Introduction to Geography	Done
AG 2010-2	Natural Terrain Study Guide	Done
AG 2010-3	Rapid Recon Landslide Hazard Relative Risk Assessment	Done
AG 2010-4	Basic Recon Line Survey Methods	Done
AG 2010-4-1	Fast Recon Leveling Surveys	Done
AG 2010-4-2	Estimating Forest Canopy Density	Done
Mobile Emergency Weather Station (M.E.W.S.)		
Pub #	Title	Status
MEWS 2010-OA	A Brief Introduction to MEWS	Done
MEWS 2010-OB	MEWS Weather Observer Orientation	In progress
MEWS2010-OC	MEWS Weather Observer Handbook Orientation	Done
MEWS 2010-B1	Temperature Measurement	In progress
MEWS 2010-B2	Estimating Wind Speed	Done
MEWS 2010-B3	Measuring Wind Direction	Done
MEWS 2010-B4	Estimating Cloud Cover	Done
MEWS 2010-B5	Estimating Cloud Base Height	Done
MEWS 2010-B6	Identifying Cloud Types	Done
MEWS 2010-B7	Estimating Visual Range	In progress
MEWS 2010-B8	Severe Weather Conditions	In progress
MEWS 2010-A1	Measuring Relative Humidity & Heat Stress	In progress
MEWS 2010-A2	Measuring Wind Speed & Wind Chill	Done
MEWS 2010-A3	Using Dew Point Temperature to Calculate Cloud Base Height	Done
MEWS 2010-A4	Measuring Rainfall	Done
MEWS 2010-A5	Reporting Severe Weather	Done
MEWS 2010-A6	Weather Forecasting	In progress

The C-bE and AG series revisions and updates were prompted by requests from former students hoping to replicate our efforts in their home countries. We are still seeking Thai volunteers to help translate lessons and materials for increased distribution. There has been interest in using the materials for teaching practical technical English. So far nothing firm has emerged.

The MEWS series was a direct spin off from the REEEPP weather observation lessons which were also adapted to the GROW (Getting Real On-farm Weather) lessons. MEWS evolved from a need to provide disaster on-site weather reports to assist emergency relief work. A key addition was incorporating flight weather data to support helicopter flight operations and training local amateur radio operators to make weather observations. 🌐

New on the Farm



Another mushroom house.



Green tea intercropping in our orchards



Water in the Central Gully holding pond



Water in the West Gully holding pond



New trellis over the compost pit



Awning for the farmhouse



More Dragon fruit planted along the drive way



Gate relocated in anticipation of new construction

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Some catfish in the West Gully holding pond



Net cages for baby fish nurseries in the Central pond..



Mulching/composting in place in the Long'an Orchards



Sugar cane on the Central Fish Pond bank.



Rain catcher for the old water tanks on the western terraces.



Serious soil erosion on the East Fish Pond embankment

The rainy season causes some serious erosion problems on the East Fish Pond's south and west embankments. The Middle Fish Pond suffered some erosion on the south embankment. This may cause some problems with the pig building foundation. The Central Gully Holding Pond has serious seepage. We need to consider 1) compacting the clay interior, 2) installing a plastic liner, or 3) removing the earthen dam of the holding pond. 🌐

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Panorama of the farm as seen entering from the driveway



The East Fish Pond: Full and teeming with new baby fish with ample food and room to grow.



Preparing grafts of our better lime trees



Mini-terraced beds along the driveway to the cowshed



One view with four ponds.

We hope to make a concerted effort to establish a green fire break along the western fence line. The main fire threat is from land and brush clearing fires set by neighboring land owners and tenants. Their carelessness led to fires spreading to our property and damaging PVC water lines for the west orchards.

The plan we have is to grow an edible cactus along the western fence. The cactus is succulent (high moisture fire barrier), a thorny supplement to the barrier fence, and also a food plant for us. 🌐

Unseen Alternate Energy in Nan

This was the name of a meeting held in the Provincial capital held on 27 Aug 2010. There were presentations on ram water pumps, biogas digesters, solar PV applications, solar cooking, biochar, worm composting, among others.



Khun Eg, Greg, Khun Jarukiat Punyadee, Nan Energy Director, Saifon.



Saifon and Khun Kittisak Lojanti from Pua District (which is north of us).



A solar food drier



Red worms, the "unseen stars" at the meeting



Saifon learning about the ram water pump.

Many government programs share three basic problems: 1) Many people are not aware of the programs; 2) the organizers (mostly government officials) are all paid to be at the meetings whereas many farmers are busy and don't have time or money to attend meetings far from home. Much of the RTC-TH success is due to our local focus and "right" sizing of not growing too big. 🌐

Rainy Season Non-toxic/Low Toxic Pest Control



Asian Tiger mosquito (*Aedes albopictus*) a vector for dengue fever, eastern equine encephalitis, and heart worm.



Paratrechina longicornis, "Black crazy ant" is common in Thai homes searching for food scraps.

The rainy season also means two common insect pests appear in greater numbers: mosquitoes and ants.

Abundant moisture gives mosquitoes the water needed for egg laying so critical to their reproduction. This often means a rise in mosquito-borne diseases in our area (e.g. dengue fever, malaria, and Japanese encephalitis). Public health officials also step up mosquito eradication efforts with the use of pyrethrin sprays (see photos below taken at our Thawangpha town location). Students actively seek out standing water sources around campus and eliminate them (e.g. discarded containers, planter trays, etc) or treat standing water with Bti (*Bacillus thurengiensis israeliensis*) provided to the schools by the local sub-district government officials. 🌐



The rainy season brings both mosquitoes...



...and increase mosquito eradication work outdoors...



...and indoors (including drains and septic tanks)...



and everything in between (like large open roofed areas)



An empty vitamin bottle



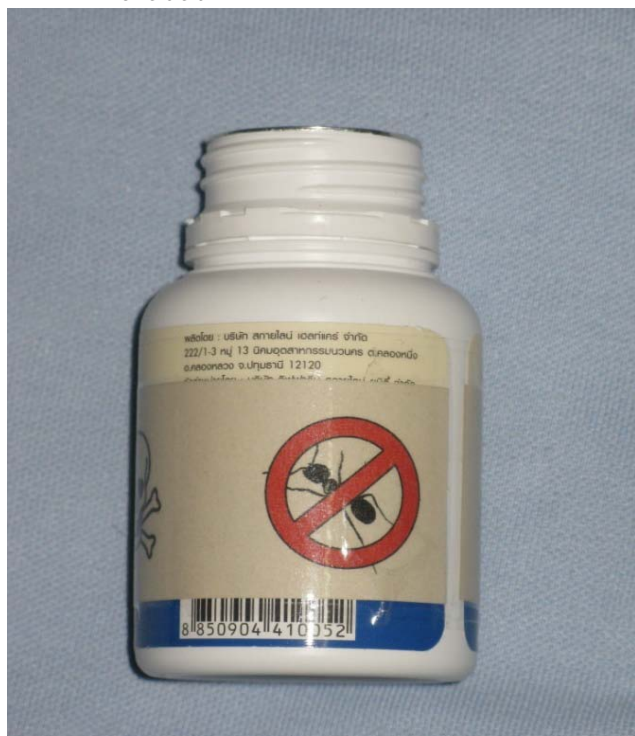
Bottled with sponge insert.



Boric acid



Sugar to mask the bait.



Re-used vitamin bottle as an ant bait holder.

Low-Toxic Ant Bait

Rainy season finds a lot of ants around. It seems many nests are flooded forcing colonies to seek new shelter. Thai people seem to live closer to nature than many Americans. We tend to be bothered by many insects and animals in the house that Thai people seem to tolerate and “work around.”

The typical Thai house is literally crawling with ants. There seem to be about 7 different varieties in and about the house looking for food all the time. Using chemical sprays does little than give some psychological satisfaction. The number of ants “killed” is miniscule in contrast to the entire colony. The queen is harbored there, safe from the reach of your spray. The chemical hazard to you and your family is far greater.

We got this ant bait recipe from Connie Beck, one of our 2005 RTC-TH trip volunteers. The beauty of this recipe is that the key is that the toxic is at a low level that it is not detected by the workers as a threat. The ants will carry the poison back to the colony and feed it to the queen. It may take a few weeks, so don't give up. Refill the bait as needed. Step 1. Mix 1 teaspoon boric acid powder in 1/3 cup granulated sugar. Mix very well.

Step 2. Put it all in 2 cups water and stir till dissolved.

Step 3. We used sponges from vitamin bottles and the empty bottle (without the cap) to hold the bait.

Step 4. Put the uncovered bait bottle near an ant trail. Periodically, check the bait level in the bottle and refill as needed. 🌐

[Note: We put warning labels on our ant bait bottles.]