



Rural Training Center-Thailand

## 2011 RTC-TH Jan Update

© 2011, All rights reserved.

[www.neighborhoodlink.com/org/rtcth](http://www.neighborhoodlink.com/org/rtcth)

E-mail: [rtc2k5@gmail.com](mailto: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*

### ***Preparing for the Dry Season***



*A multi-purpose weeding, mulching, fire fuel reduction effort takes place in the orchards.*

The dry season poses 2 critical challenges for our farm: the need to water our plants and the threat of fire. To meet these challenges, we prepare the farm for the dry season.

The orchards are weeded to reduce potential fire fuel. The grass and weeds are mulched to protect the soil from direct exposure to the sun. This helps reduce evaporation and retains soil moisture. The dry mulch can burn, but if it does, it will be a low intensity creeping fire. It would do minimal damage to the plants in the orchard. Individual plants also get a ring of low density shade mulch matching the individual tree wells. This year we will try using a “weep bottle drip irrigation” to water the trees along the farm driveway. This method is deemed a no cost / low cost drip



*Grass in the pasture is cut to reduce fire fuel.*

<b><i>In This Issue</i></b>			
<i>Preparing for the Dry Season</i>	<i>1-3</i>	<i>Farm Fresh Fish</i>	<i>9-10</i>
<i>Monitoring Water Levels in Our Tanks</i>	<i>4</i>	<i>Tam Boon in Our Thawangpha Home</i>	<i>11</i>
<i>Sport Day at Ban Na Fa Elementary School</i>	<i>5-6</i>	<i>Making Sticky Rice</i>	<i>12</i>
<i>Plants on the Farm Driveway</i>	<i>7-8</i>		





*Low Density Shade Mulch is put on the driveway plants.*



*A discarded plastic bottle gets a pin hole in the bottom.*

to worry about. Each bottle is independent of any other bottle, so there is complete flexibility in the layout of the plants. Traditional drip irrigation lines require a water supply source elevated about 1-1.5m to provide line pressure for gravity water flow. If the lines are too long, water is not evenly distributed along the full length of the line. Add to this the off-farm expense of the drip line and the need to replace the line due to damage or deterioration by exposure to sunlight, and you have a recurring cost. We avoid this by using discarded plastic beverage bottles. 🌐



*Weep Drip Bottle in action, allowing water to soak in.*

irrigation method. It uses discarded plastic beverage bottles. So the key drip irrigation component is virtually free.

A tiny pin hole is made in the bottom of the bottle. The bottle is filled with water. The cap is tightened. Then the bottle is inverted to prevent water loss until it is ready for use.

To use the “weep drip bottle”, the low density shade mulch (LDSM) is moved aside. Then the weep drip bottle is placed in contact with the soil at the base of the plant you want to water. The cap is loosened slightly to allow air into the bottle. The LDSM is put back into place shading the bottle and the soil. The water slowly weeps out of the tiny pin hole in the bottom of the bottle.

Compost tea can be put into the bottle as a liquid soil amendment. Worm tea (properly diluted; ~ 1 part tea to 10 parts water) can also be weep dripped to the plant.

Weep Drip Bottles have advantages over traditional drip irrigation systems.

There is no drip line and no line pressure

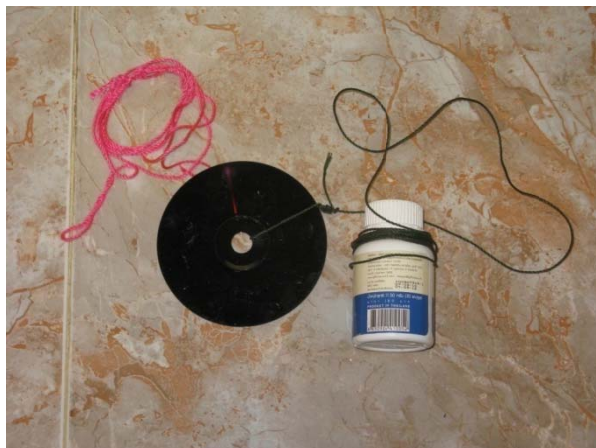


*Placement of the Weep Drip Bottle*

## Monitoring Water Levels in Our Tanks

The rainwater storage tanks on our farm were built at various times and by various workers and methods. A major variable was the distance of the overflow drain from top rim of the tank. In the past, water level observation required getting up to rim to measure the water levels.

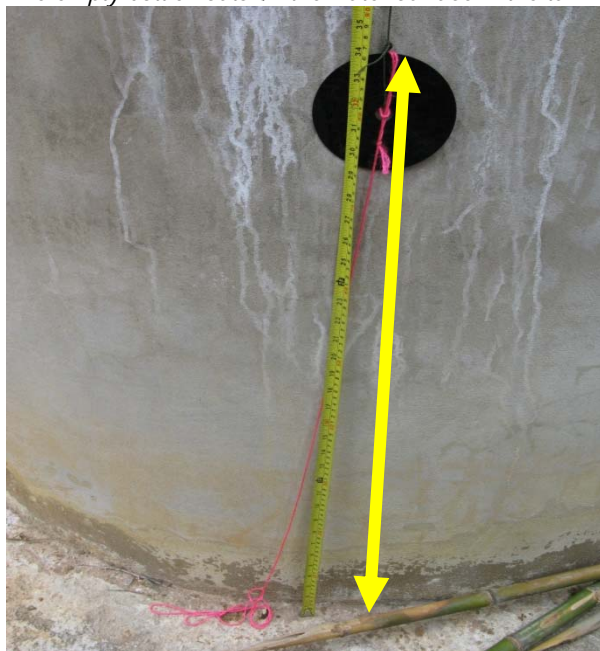
This year we decided to make it easier by re-using empty vitamin bottles and discarded CDs joined by some string. We have records of the tank dimensions. Once we know the height of the overflow drain, we can know the maximum capacity



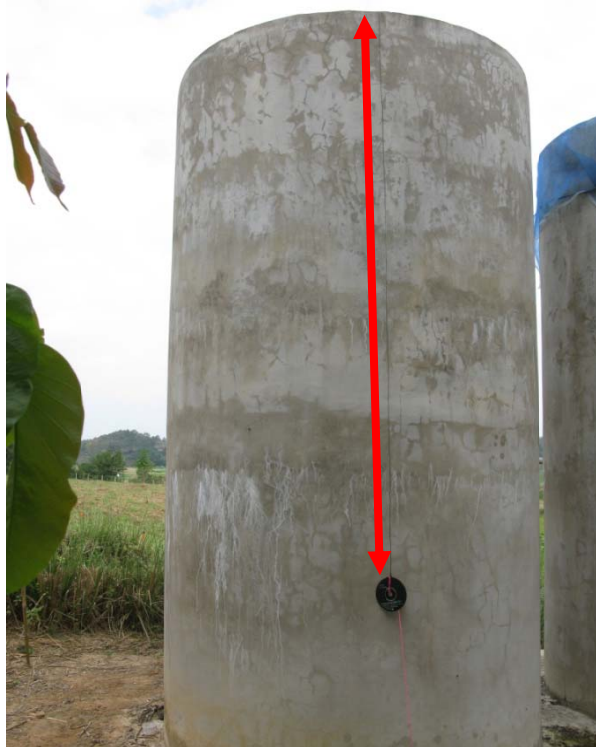
*Re-using a discarded CD and an empty vitamin bottle.*



*The empty bottle floats on the water surface in the tank.*



*We just measure this distance and look it up in a table.*



*The red arrow shows the water depth in this tank.* of the tank. The empty vitamin bottle floats on the water surface. The distance from the rim of the tank to the top edge of the CD is the height of the water in the tank. We have look up tables for each tank calculated to show the amount of water in the tank referenced to the height of the top edge of the CD to the base of the tank. 🌐



## ***Sport Day at Ban Na Fa Elementary School***



*All the schools assemble for the parade.*

It's not as big as the Olympics or even the Rose Parade, but Sport Day in Ban Na Fa tied up traffic and turned heads just the same. Sports Day is an annual event. Ban Na Fa has the largest playground in the subdistrict. Eight elementary schools met here to compete. They come from Ban Nam Hao, Ban Kong, Ban Na Fa, Ban Thon, Ban Phrao, Ban Siew, Ban Triraj, and Ban Yu.

Head villagers and Regional Education Officers are in attendance. They presented the awards and ribbons to the winners.

The day was filled with races of various distances for the different ages and genders of students from the various schools. The officials had their hands full coordinating the different races, logging the names of the winners, presenting medals, and keeping on schedule. The bright sunlight, warm temperatures and shortage of shade added to the challenges. Parents and siblings sat at a distance keeping to the shaded tree line as much as to keep out of the way.



*The opening is announced with fireworks.*



*An Olympic flag is raised above the school flags.*





*Ban Na Fa students wait to go on parade.*



*As the host school, they are the last to pass in review.*

For some, it's all about competition and winning. But good sportsmanship also means other lessons are also important: team work (trying your best even if you don't win; doing your part to represent your school; being an active participant in something that is bigger than you). Some students participated by assisting in awarding presentations, providing entertainment, serving refreshments, making decorations, and cheering on their classmates. 🌐



*Various races are run.*



*Winners earn medals and recognition.*



*School compete for trophies and medals.*



*The Ban Na Fa medal count grows.*



## ***Plants on the Farm Driveway***



*The View of the as you enter the front gate.*



*Dragon fruit near the main gate to the farm.*

Join us for a tour of the plants on our farm. This segment starts at the entry to the farm: the Driveway. All of the plants provide fruit or edible leaves. This fits our “grow what you eat, eat what you grow” goal. Many of them were located along the driveway to help anchor the soil along the road cut forming the eastern boundary of the pasture area.

During the dry season, we use low density shade mulch and will be trying a new “weep drip bottle” irrigation method to help maintain these plants. 🌍



*Mango trees alternating with papaya trees.*



*A pruned Marum tree amidst the mangoes and papayas.*



*A view of the main driveway from the gate on the right to the farm house on the left.*





*A Hong Kong Orchid tree (the young leaves are edible).*



*An avocado tree next to a papaya tree.*



*Mafaijeen, lemon grass, and pineapple.*



*A Neem tree (edible buds; leaves used to make an organic pest repellent).*



## ***Farm Fresh Fish***



*Casting a throw net from the pond bank.*

Throw nets were used from the banks of the pond and from a bamboo raft. The fish caught were then selectively culled. Small ones were returned to the pond. Larger fish were put into a holding pen from which the buyer could choose. The remaining big ones are readily available for the next buyer or will be fattened for the family table.



*The catch is quickly culled; small fish get tossed back.*



*We use a bamboo raft to get farther out in the pond.*



*You can see there's plenty of fish in our pond.*



*The big ones are culled for sale.*





*The big ones are put in a holding pen.*



*The buyer selected a black and a red tilapia.*



*They weigh in at 2 kg / ~4.5 lbs!*



*A happily concluded cash transaction.*

Self-sufficiency and sustainability as goals are moving targets in an elaborate and complex balancing act. Each family and farm needs to strive to find its particular balance. The King advised people to become as self-sufficient as possible. He recognized that “self-sufficiency” needed to be self-defined to suit the conditions and capabilities of each farm. Resources are not evenly distributed in the kingdom. 🌐



*The original fish pond on our farm was the first in the area following the King's Theory.*



## ***Tam Boon in Our Thawangpha Home***



*Placement is based on the household Buddha image.*

An auspicious day was chosen for us to *tam boon* (make merit by providing food to monks) in our Thawangpha home. This involved a month of prior planning and coordinating many details. Various relatives and friends lent a hand to take care of the many details and in preparing the food for the 5 monks and those attending the ceremony.

Various purifying features (salt, flame, water, incense) were all part of the process. The required materials had to be arranged properly. The abbot of Wat Ban Wang Wa led the ceremony. The Buddha

image for the household is placed to the right of the abbot.

Following the ceremony, we give gifts to the monks for their participation. We feed them. Timing is critical because monks may not eat after 12 noon for the rest of the day. 🌐



*Everyone wais to the Buddha image during the chanting.*



*The monks chant in Pali for about 40 minutes.*



*We give offerings to the monks.*



## ***Making Sticky Rice***

Sticky rice is the basic part of northern Thai meals. In our home, it is made at the start of the day. Enough is made for the entire day's meals.

The raw milled rice is soaked overnight in water. The next morning it is rinsed, steamed, cooled, and put away for serving. Northern Thai meals tend to be finger food, so the rice can't be too hot to the touch. 🌐



*It starts with an overnight soaking.*



*An early morning rinse before cooking.*



*Steaming for about 20 minutes.*



*Emptying the steamed rice onto a bamboo tray.*



*Spreading the rice on a tray to cool.*



*Getting ready to set it aside for serving.*



*Putting it into a cloth sack, ready to serve.*