

# Mangoes, Manioc, and Tangerines

An Update from the Fruits, Vegetables, and Environmental Education Program of the Church of Jesus Christ in Madagascar

By Dan Turk, PC(USA) mission co-worker serving in Madagascar

Dear Friends,

In May of this year, my colleagues Rolland Razafiarison, Germain Andrianaivoson and I went to Betroka to do a training for members of the FJKM church there as part of a project sponsored by the Presbyterian Hunger Program. The FJKM, or Fiangonan'i Jesoa Kristy eto Madagasikara, is PC(USA)'s partner denomination in Madagascar. Betroka is in southern Madagascar, about 23 hours by road from the capital city Antananarivo where the Fruits, Vegetables, and Environmental Education Program (FVEE) with which we work is headquartered. There is considerable open land around Betroka where mangoes and manioc can be grown.



*Photo 1. Pastor Eric Rakotoarijaona with some of the grafted mango trees for the Betroka FJKM church*

The pastor of the FJKM church at Betroka, Eric Rakotoarijaona, received training in how to grow and graft fruit trees at a training my colleagues did for evangelist pastors in November 2021. Then in April 2022, we trained two people from each of the FJKM's 37 synods in Madagascar to be volunteer technicians for the synod. Mr. Rolland Razanajatovo from Betroka was one of two volunteer technicians for the Ambovombe Atsimo Kristy Ranovelona Synod. The training in May was a follow-up to help

further the church's involvement with growing fruit trees with a particular focus on growing mangoes because they are especially suited for the long dry season at Betroka.



*Photo 2. The FJKM church at Betroka*

In addition, the FJKM church at Betroka was selected as one of two pilot green churches for the synod. In August 2021, the FJKM General Assembly decided that all FJKM churches should become green churches in the next 4 years. To help the FJKM accomplish this goal, FVEE agreed to provide native trees and fruit trees for planting at two pilot green churches from each of the 37 FJKM synods in Madagascar. In addition to fruit trees, we brought 4 native trees for planting on the church grounds to help the church be green.

At Betroka we trained 40 people in how to grow and propagate fruit trees. Participants got hands-on training in how to graft citrus and mangoes. This is part of a series of trainings that the FVEE has been doing to help the FJKM use fruit growing as part of its outreach efforts in many parts of Madagascar.



*Photo 3. Training in progress at Betroka*

For a snack, the participants ate tangerines we brought from Antanetibe Ankazobe where in 2010 my colleagues and I helped 74 families start growing tangerines. Many in Antanetibe have greatly increased their income by selling tangerines and are well on their way to get out of poverty. Unfortunately, tangerines need regular irrigation to produce well. At places like Betroka where irrigation of orchards is not feasible, it is nevertheless possible for many people to get good tangerine crops from a few trees grown around their houses



*Photo 4. Tangerine trees at Antanetibe – the tree in the middle produced 102 kg of tangerines in 2022*

We took a carload of 174 fruit trees with us to Betroka, including 99 grafted mango trees. The training participants potted up twenty of these, each a different variety, in 20-liter pots to serve as mother trees for producing more grafted trees. The varieties we provided are among the world's best mango varieties, including Keitt, Kent, Kesar, Neelum, Orange Sherbet, Tommy Atkins, Valencia Pride, Van Dyke, and Venus. We also delivered canistels, jaboticabas, 6 grafted citrus trees, a peanut butter fruit, and a red mombin.

Previously, we had included Betroka in a project proposal to help people grow both fast-growing trees and fruit trees. The church at Betroka purchased 45 hectares (111 acres) of land and set up a committee called the Faith and Work committee (Komity Finoana Miaro Asa) to be ready for carrying out that project. When Betroka was not ultimately included in the reforestation/fruit tree project, the Faith and Work committee continued to develop plans for the land. They planted two hectares of manioc (cassava) and began working with the community near the land as an outreach ministry of the church.



*Photo 5. Manioc growing on the Betroka church's land*

While in Betroka we visited the land and met with committee members. The committee is very excited about the work they are doing. Pastor Eric thanked us for the FVEE's role in prompting them to purchase the land and set up the committee. Sometimes God takes a botched plan and turns it into a very good thing! The committee plans to plant 50 of the fruit trees we brought among the manioc already growing on the 45 hectares of land. That way the elimination of weeds needed to help the manioc grow well and to protect it from grass fires will also serve to protect the fruit trees. Fifty trees will be a half hectare at 10 m x 10 m spacing. The committee will also be propagating the mango trees in the 20-liter pots to get more grafted mango trees to plant on the land. The FVEE will be helping the church get wells dug to have the water needed for getting the mango trees established.

Why manioc? The president of the committee, Mr. Tiana Andriambelona, told us that the land around Betroka is especially suited for growing manioc because even though the rain falls in a few short months, it is sufficient to get a good crop of manioc roots. Also, the church would like for the manioc to contribute to the alleviation of hunger in the far south of Madagascar. Low rainfall over several years combined with reduced employment opportunities due to the Covid pandemic have caused hundreds of thousands of children in the far south to be acutely malnourished. Pastor Eric said that people in the far south prefer eating manioc to rice because they say it stays in the stomach longer. He would know, having served as an evangelist pastor at Ambovombe in the far south for 5 years until taking up his new post at Betroka less than a year ago.

We took advantage of Pastor Eric's knowledge of southern Madagascar to get ideas that will help us expand further into southern Madagascar in coming years. In the far south, Pastor Eric explained, the two main problems are insufficient water and winds called "tiokatsimo" that blow sand and destroy

crops. Fruit trees, especially mangoes, can be a great help to alleviate hunger but water is needed in the nurseries where the trees are produced and when the trees are still young. The challenge is to find locations where there is sufficient water to propagate trees. Similarly, fast-growing trees are needed both for fuelwood and to be grown as windbreaks to protect crops from the damaging winds. Water is needed to be able to grow the trees. Pastor Eric gave us information about FJKM churches in the far south that may have the water needed to grow trees. This is something my colleagues and I will be following up on in coming years as we deepen the FVEE's involvement in the south.



*Photo 6. Tiokatsimo winds in southern Madagascar*

On our way back we spent the night of 29 May at Ambalavao and went the next morning to Andonaka, a town not far from Ankaramena. The FVEE is installing a large fruit nursery at Ankaramena and coordinating a reforestation/fruit tree project with about 170 farmers in the Ankaramena area. PHP is funding fruit training at Andonaka in 2022. The pastor at Andonaka serves two main churches, at Andonaka and Ankaramena, and another 10 smaller churches in surrounding communities. After worshipping at Andonaka we explained to the members of the church the potential of fruit trees, especially mangoes, to provide income for farmers. We brought with us 6 trees for planting at the church: Kent and Valencia Pride mangoes, a jaboticaba, a Bruce canistel, and two native palms, *Beccariophoenix alfredii*. We had left them at Ankaramena on our trip south from Antananarivo the week before. The church members are excited about the possibilities and are looking forward to getting training and grafted trees later in 2022. On the side, Germain asked what people in the Andonaka community grow more, rice or manioc. The answer was manioc, because there is not enough water for rice to be grown in rice paddies. So once again, people will likely plant mango trees in fields of manioc.

After the meeting we found that the car's radiator was dry. We had sprung a leak in the water pump. Fortunately, we got water in the radiator before starting up the motor. For the rest of the trip back to

Antananarivo we avoided damage to the motor by filling the radiator every 30 minutes or so when the car was running.

On our way back to Ankaramena, we stopped to see the nurseries of 3 of the 10 volunteer technicians who will be producing about 7000 fast growing trees in each of their nurseries as part of the reforestation/fruit tree project. At one of these nurseries, there was water running through a small ditch next to a field where the local FJKM community plans to build a church. My colleagues and I immediately recognized the potential for growing tangerines there. Preliminary discussions indicate that this may be a real possibility.

In conclusion, there is much potential for mangoes to greatly help with food security and income generation in much of southern Madagascar including in the Betroka, Ankaramena, and Andonaka areas. Growing mangoes in combination with manioc looks to be a good way to help get mango trees established. Growing tangerines can be an excellent source of income when water for irrigation is available.

Many thanks to all who are helping sustain the fruit ministry of the FVEE through prayer and financial support. Your participation is helping the FJKM fight poverty in Madagascar.

Peace in Christ,

Dan

**Please read the following letter from Rev. Mienda Uriarte, acting director of World Mission:**

Dear Partners in God's Mission,

What an amazing journey we're on together! Our call to be a Matthew 25 denomination has challenged us in so many ways to lean into new ways of reaching out. As we take on the responsibilities of dismantling systemic racism, eradicating the root causes of poverty and engaging in congregational vitality, we find that the Spirit of God is indeed moving throughout World Mission. Of course, the past two years have also been hard for so many as we've ventured through another year of the pandemic, been confronted with racism, wars and the heart wrenching toll of natural disasters. And yet, rather than succumb to the darkness, we are called to shine the light of Christ by doing justice, loving kindness and walking humbly with God.

We are so grateful that you are on this journey as well. Your commitment enables mission co-workers around the world to accompany partners and share in so many expressions of the transformative work being done in Christ's name. Thank you for your partnership, prayers and contributions to their ministries.

We hope you will continue to support World Mission in all the ways you are able:

**Give** – Consider making a year-end financial contribution for the sending and support of our mission personnel (E132192). This unified fund supports the work of all our mission co-workers as they accompany global partners in their life-giving work. Gifts can also be made "in honor of" a specific mission co-worker – just include their name on the memo line.

**Pray** – Include PC(USA) mission personnel and global partners in your daily prayers. If you would like to order prayer cards as a visual reminder of those for whom you are praying, please contact Cindy Rubin (cynthia.rubin@pcusa.org; 800-728-7228, ext. 5065).

**Act** – Invite a mission co-worker to visit your congregation either virtually or in person. Contact [mission.live@pcusa.org](mailto:mission.live@pcusa.org) to make a request or email the mission co-worker directly. Email addresses are listed on Mission Connections profile pages. Visit [pcusa.org/missionconnections](http://pcusa.org/missionconnections) to search by last name.

Thank you for your consideration! We appreciate your faithfulness to God’s mission through the Presbyterian Church (U.S.A.).

Prayerfully,



Rev. Mienda Uriarte, Acting Director  
World Mission  
Presbyterian Mission Agency  
Presbyterian Church (U.S.A.)

To give, please visit <https://bit.ly/22MC-YE>.

*For it is the God who said, ‘Let light shine out of darkness,’ who has shone in our hearts to give the light of the knowledge of the glory of God in the face of Jesus Christ.*

2 Corinthians 4:6