

The Weekly

Climate change

Agriculture is and continues to be the engine to development in Malawi. It serves as a tool to preserve domestic food security and is instrumental to Malawi's economy. At the same time, agriculture is the most vulnerable sector due to climate change.

As we have discussed in the previous bulletins, climate change is having a great impact on agriculture and food security – mainly because of unpredictable weather and extreme events – such as droughts and flooding.

And it was also emphasized in last week's bulletin that sustainable agriculture under a warmer and drier climate requires choosing to raise crops that tolerate extreme weather.

In this bulletin we will look at growing mango trees in difficult climatic conditions.

Approximately, four million mango trees are owned by small-holder farmers along the shores of Lake Malawi.

The goals of the Weekly Bulletin are:

- To learn from other farmers about the advantages of growing Mangoes
- To promote discussion and dialogue between listeners and other community members about the adaptive strategies that farmers can use in response to climate change effects (growing Mangoes)
- To emphasize the health benefits of mangoes

The Problem: Not Enough Knowledge on Mangoes being a drought-tolerant fruit tree

A crop's growth and maturity is highly influenced by temperature. As the temperature goes up drought conditions can have a significant impact on reproductive stages of plants and crops.

Mango will remain a highly suitable crop in many regions of Malawi, despite rising temperatures. The mango tree can tolerate a wide range of climate conditions.

It is successfully cultivated under a variety of conditions -- from very hot, very humid to cool and dry, to very hot and arid.

In addition, the trees can survive in swampy conditions for an extended period of time, but will also survive in areas with low rainfall and temperatures as high as 45 °C.

That is to say, mango trees will grow and produce well in areas with very high temperatures. However, when the maximum temperature exceeds 46 °C, vegetative growth stops – and this is especially true when combined with low humidity. The good news, in Malawi the temperature does not exceed 45 degrees Celsius, therefore, Mango trees are highly tolerant to the country's temperatures.

Still, the mango tree needs protection – particularly from wind. Harmful fungi and bacteria can be carried to the fruit by winds.

So, it is important to construct wind-breakers around young mango trees to protect them from wind.

Activities for Journalists

Use your radio station to help your community understand that the mango is one of the fruit trees that is drought-tolerant. Malawi has some of the best conditions in the world for growing tropical fruits such as mangoes.

Make the following points about mango known to your listeners:

Mango can be grown for commercial purposes or just for personal consumption of its fruit. Mango trees grow best on a slight slope which enables runoff of excess water and prevents waterlogging. The trees do not thrive on very steep slopes because excessive drainage in this case could lead to water shortages and soil erosion.

Mango fruit takes from three to six months to ripen. Mango is grown widely for its fruit in Malawi and other parts of Africa, since it is an excellent nutritional source- containing many vitamins, minerals, and other healthy substances, which aid in digestion and intestinal health.

Mangoes can be planted 50 meters apart. The dropping leaves of a mango tree can serve as fertilizer to the soil to support plants in between them. Mango trees are also fire resistant.

The benefits of mango farming hardly end at profit making. The environment also comes out a big winner with the planting of mango trees. Mango trees can contribute to the long-term development of the environment, since it is not a hard wood tree – and thus people are discouraged from cutting it down for fuel. Mango trees make valuable allies for reforestation programs. The

benefits of reforestation cannot be overemphasized: trees help to filter water, combat salinity, clean the air and increase flows into water catchments. They also provide food and shelter not only to humans but also to wildlife and are an integral part of our country's biodiversity.

At the same time, being fruit-bearing trees, mango trees create opportunities for livelihood in the communities where they are planted. The variety of products such as mango archer and juice is enough to sustain the livelihood of communities.

Encourage people in your community to plant mango trees in their compound or in their fields if they haven't done so already.

Interview several mango farmers and ask them why they decided to venture into mango farming. What has been their experience with mango trees? How tolerant have their trees been with temperature fluctuations? Are they able to make living growing mangoes?

Interview an agricultural expert from your area; ask him/her about how mangoes are tolerant to climate change. What are some of the other benefits of mango trees?

Are mangoes widely eaten in your community? If not, why?

How many mango seasons are there in one year?

Interview some sellers in the market and find out how much mangoes cost?

Useful Contacts

- https://www.hort.purdue.edu/newcrop/morton/mango_ars.html
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