The Weekly
Information Resource Bulletin

Climate change Focus

Malawi's main staple food is maize, and is mainly produced by smallholder farmers who rely heavily on rain to nourish their crops.

Nowadays, the production of maize is hindered by climate change issues, including prolonged dry spells, low soil fertility and poor farming practices, with soil degradation being the most critical factor in rain-fed farming.

It is therefore important to explore ways of improving efficient use of the rain water in order to ensure the soil retains moisture, longer.

One of the ways of retaining soil moisture in maize and other crops is by using conservation agriculture techniques.

The goals of the Weekly Bulletin are:

- To promote conservation agriculture
- To discuss the techniques and advantages of conservation agriculture
- To learn from other farmers about the techniques and advantages of conservation agriculture
- To ensure there is enough food for a growing population

The Problem: Lack of Knowledge about Conservation Agriculture

Conservation Agriculture is a set of soil management techniques that minimize the disruption of the soil's structure and composition.

Conservation agriculture is done through:

- Managing the top soil to create a permanent organic soil cover which allows for growth of organisms within the soil.
- Minimum soil disturbance through tillage and
- Regular crop rotations

Farmers are advised to manage their farms by following some of these practices:

- use of cover crops to produce the residue cover
- no burning of crop residues

When these practices are used one of its benefits is the reduction in fossil fuel use and green-house gas emissions.

Though conservation agriculture will be beneficial to a lot of Malawians, most farmers have not fully adopted it, as they have not witnessed its success stories.

Conservation Agriculture techniques improve the efficient use of rain water in order to help the soil retain moisture.

Conservation agriculture protects the soil against erosion and nutrient losses. It also requires less water use due to enhanced water holding capacity from crop residues left on the soil surface.

Activities for Journalists

Use your radio station to help your community understand what conservation agriculture is all about. Include in your program some of the techniques of conservation agriculture

Let your listeners know they can ensure maximum soil cover by using techniques such as mulching, the use of cover crops or mixed cropping and crop rotations. Crop rotations are done either through the physical interchanging of crops on a piece of land or through crop mixtures where a legume is incorporated with a non-legume (Legumes are plants that are flowering and produce edible seeds, examples of legumes include beans and peas. (K.E Giller 2009**).**

Another technique is the use of pit planting. In pit planting, plants are grown in pits. The pits help in collecting water and letting it filter into the soil slowly even after the rain has stopped. This ensures prolonged moisture in the root zone of plants, which in return ensures continued growth during dry spells.

According to the Food and Agriculture Organization (FAO), conservation agriculture allows yields to increase while improving soil and water conservation and reducing production costs.

Conservation agriculture can be used in different farming systems, with different combinations of crops.

Have a vox pop with a number of people and ask them what they know about conservation agriculture.

Ask an extension agent to explain what conservation agriculture is.

Have an interview with two families who are practicing conservation agriculture. Find out from them about the techniques of conservation agriculture they are using and the benefits they have seen, so far.

Some of the benefits could include: an improvement in the health of the soil – which improves water penetration; reduced weed populations over time and increased crop yields (Derpsch, 2005)

Interview an agricultural officer from your area on the techniques and benefits of conservation agriculture.

Ask your listeners to call the station or send an SMS about any benefits they have seen using conservation agriculture.

Useful Contacts

- PRB- Contact person; Sandra Mapemba: +265-99-921-9789
- Bunda Agriculture College: Mr Mpinganjira: 265-1-277-222
- www.fao.org/ag/ca/ca-publications/istro%202009.pdf
- www.sciencedirect.com/science/artice/pill/S037842900900701