

The New Exploratory Experiment on TEFF

Teff is believed to have been cultivated from 4000BC and originally grown in Ethiopia. It is an indigenous cereal. The word teff comes from Amharic meaning 'lost' because the size of the grain is very very small; if it is dropped it is impossible to find it.

Teff differs from other crops in that it can be grown in a very wide range of soil and climatic conditions. It has also high nutritional value.

Since teff is the staple food of most Ethiopian people, the present production system can not satisfy the consumers' demand. This is because the farming system that farmers use is backward which is not supported by modern technologies. This means the local people use broadcasting system rather than using row planting. When teff is compared to other cereals, it has more value than others cost wise as well as cultural values. But it is the lowest in yield of all the cereals grown in the country. In Ethiopian culture for instance, the food served on weddings, New Year occasions or any celebrations, without injera which is traditional and staple food made of teff, is unthinkable.

As the population increases and the demand of teff rises, the supply is not increasing at the same rate. The price of teff is going up. Consumers who have less income could not afford the price of teff. How long this problem goes on? How could this problem be tackled?

Determined researcher Dr. Tareke Berhe and his colleagues have been stimulated by this problem and tried to dig deep day and night to come up with something to solve the problem. When they dig they found a system that could make a promising project and that could replace the old system (broadcasting system), growing teff seedling and transplanting it on a plot by rows in the middle of their thought.

That is why people were gathered on Saturday 29 May 2010 in Debrezeit Agricultural Research Centre. It was a demonstration of Teff Intensification experiment.

Dr. Tareke Berhe and Ato Zewde G/tsadik from Sasakawa Global 2000 were the researchers who conducted the demonstration in collaboration with Debrezeit agricultural research centre, Institute for Sustainable Development (ISD) and Oxfam America.

Dr. Tareke explained to the gathered visitors "the main objective of this experiment is to change the traditional method of cultivation, broadcasting method that farmers commonly use these days which contributes to the insufficiency and poor productivity of teff, to transplanting young teff seedlings that increases the productivity of teff. The broadcasting system with poor quality of seed, poor soil fertility, and seed rate which is

25-50 kg/ha which make the mature plant to lodge ie.fall over. All these things affected the production of teff. That is why we are doing this experiment.”

According to Dr. Tareke the yield of teff can be improved by changing the cultivation system. The new approach in the exploratory experiment is growing seedling on a flat and transplanting it into the field has shown a promising result.

For example, it reduces the seed rate from the broadcasting method. A farmer uses 25-50 kg/ha teff but in the new method 2-2.5kg/ha will do. The yield of transplanted teff has a four fold increase, moreover it increases tiller number, producing strong tiller culms and it increases number and quality of seeds.

This transplanting teff seedling method was experimented on different plots by applying different inputs like compost and chemical fertilizers. There were five plots (2m by 5m) on which two week old seedlings planted. The transplanted seedlings planted in a row have replicated three and four times. The fifth plot used for broadcasting method as a check but the yield is very low.

The results of the experiment are very promising and encouraging. As the researchers explained, the yield of the broadcasting plot was 500-1200kg/ha on the other hand the transplanted ones have given 3,400-5,100kg/ha.This shows the new approach has a four-fold increase in yield. In addition the straw yield is also increased from the new experiment. The straw yield is a very important cash crop for farmers that it is sold for fodder and constructing houses made of chika (mud+straw mixture).

Such a promising research is valuable to the country and the people for food security, keeping the environment and using the land economically. Therefore the government, NGOs and other concerned bodies have to give support to this research in order to get the research completed and implemented to the whole country.





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