

## GEFF Tajikistan Radio Interview #1: Minimum Tillage Technology

### *Moderator*

Hi. This is Subhon Jalilov and I'm glad to be on air with you again. You are listening to Radio Vatan. We are pleased to launch the first bi-weekly radio interview session with experts on agri value chains. They will share their views on how farmers and agribusinesses can adopt green technology solutions that can enhance the competitiveness of agricultural value chains and improve climate resilience in Tajikistan. Today we will talk about the minimum tillage technology. The program has a separate segment for Q&A.

You can call 2231106 and ask questions during the program or send your question via our Facebook page @radiovatan. Our invited experts will be providing you real-time answers.

Today's guests are Mr. Usmonkul Boturov, GEFF Tajikistan Deputy Team Leader as well as Mr. Bahrullo Ibodov, a farmer and experienced agronomist from the Hisor district, who has been actively using minimum tillage technology for several years. Welcome, it is a pleasure to have you both on the program today. First of all, I would like to invite Mr. Boturov to briefly introduce GEFF Tajikistan.

### *GEFF Tajikistan expert*

Thanks a lot. I'm glad to be here. The Green Economy Financing Facility Tajikistan was officially launched in November 2019 as a product of the European Bank for Reconstruction and Development, working in cooperation with the European Union, the Green Climate Fund and the Republic of Korea. The Facility operates through Participating Financial Institutions in Tajikistan, supporting its green economy transition with \$25 million of financing for energy and resource efficiency investments. Since the credit line was activated with its first GEFF Partner Financial Institution, a total of \$1 million has been disbursed to nearly 200 beneficiaries. GEFF Tajikistan supports various innovative green technologies, and today we are going to talk about the minimum tillage technology.

### *Moderator*

Thanks. Mr. Ibodov, could you please share with us your experience on minimum tillage technology?

### *Invited expert*

Thanks a lot for inviting me to the program. First of all, I would like introduce this technology. The minimum tillage technology is relatively new in Tajikistan. In Central Asia only Kazakhstan, Uzbekistan, and Kyrgyzstan have used this technology. Minimum tillage is an agricultural technique for growing crops without disturbing the soil through tillage. From year to year, the technology leads to an improvement in the structure of the soil, a steady increase in its productivity, an increase in production and lower costs, as well as an improvement in the quality of fields.

In the traditional crop technology that is currently in use, the soil is intensively exploited. From year to year, soil fertility decreases, therefore reducing productivity over time. Minimum tillage farming aims to restore and improve the soil. In other words, the essence of minimum tillage is to eliminate the mechanical treatment of the soil, cover the surface of the soil with organic plant residues and wide use of the diversification of crops in crop rotation. Minimum tillage technology decreases soil erosion. Other possible benefits include an increase in the amount of water that infiltrates into the soil, retention of organic matter in the soil, and nutrient cycling. These methods may increase the amount and variety of nutrients in the soil.

In Tajikistan, direct sowing of winter wheat is carried out annually with minimal cultivation on the area of 25-50 thousand ha. It was observed that soil degradation decreased and the amount of organic matter in the soil increased. Also, it results in reduced consumption of water, seeds and fuel.

The technology has several advantages. Soil cultivation is one of the most expensive among other agricultural activities and contributes to air pollution. Minimum tillage without ploughing and other soil preparation activities allows farmers to reduce costs by 30-40%, especially in terms of labour and fuel. Farmers must first understand the difference between traditional and modern technology systems as well as what they want versus what they can achieve.

It is also important to mention the following aspects of the technology:

- ✓ Use of herbicides for weed control at the first stage is economically effective for crop management;
- ✓ Establishment of a network of agricultural service providers to support farmers in the introduction of minimum tillage agriculture;
- ✓ Need to change farmers' thinking, conduct trainings, organize demonstration sites, publish and distribute promotional materials.

I am renting 6 hectares of land in the Shahrinav district and last October, I planted autumn wheat in a straight line using minimum tillage technology. Compared to neighbours' fields, the wheat grew well as it was a well-irrigated land. I hope to have a higher yield than traditional tillage while keeping costs low.

#### ***Moderator***

That sounds great, thank you. Very interesting point. So, we have received several questions already. Could you please share with us your opinion on some challenges in introducing minimum tillage in Tajikistan?

#### ***GEFF Tajikistan expert***

The main challenge is the high cost of purchasing specialized planting equipment as well as the additional knowledge and skills from farmers that are needed to use the technology. This is why we are supporting our farmers.

#### ***Q&A session***

#### ***GEFF Tajikistan expert***

That was a very interesting discussion today on minimum tillage technology. Please remember that minimum tillage technology is recommended in the Gissar region and the growing of winter wheat in the rain-fed area on sloping land and soil erosion by water run-offs is a local problem. Hope you found the session useful. If you have any questions regarding the technology we discussed today or about the GEFF Tajikistan project, please call +93 4339001 or visit our Facebook page.

#### ***Moderator***

We have reached the end of this segment. It was my pleasure to have you on board, thank you for your participation in the discussion. Let me also thank the GEFF Tajikistan team for sharing their experiences and supporting modern, resource efficiency technologies in Tajikistan. The upcoming session will be in two weeks at the same time on intensive orchards. Thank you for your attention.