



Report on Mixed Fodder

General information

The main goal of FinExCoop is to introduce seed rotation and the use of various modern agrotechnologies in Georgia's agriculture. The first demonstration plot was implemented by the program in Kakheti region with livestock farmer Niko Beniaidze. Numerous studies conducted by various international and local organizations have identified several key problems in beef and dairy sector, one of the major problems being the lack of a food base and nutrition. Accordingly, taking into account the above-mentioned and the upcoming sowing agro-dates, it was decided to immediately arrange a demonstration plot in order to improve the food base.

Demo farm location

FinExCoop project started its operations with demo plot of mixed fodder in the village Arkhiloskalo which is placed in one of the low humidity regions in Georgia. It is located in the Kakheti region and the main culture produced past 30 years is winter barley and winter wheat, in addition livestock is developed in the region, mainly in the dairy direction, for which the food base is important. In this region, farmers do not use crop rotation system which caused the soil problems, mainly soil exhaustion. After Soviet Union collapsed, almost all of the windbreaks were chopped and as a result it caused soil erosion. According to climate-data.org (<https://en.climate-data.org/asia/georgia/kakheti/arkhiloskalo-321904/>) Arkhiloskalo is located at 671 m above sea level and the driest months are January (28 mm of precipitation) and June, the precipitation reaches its peak, with an average of 106 mm.



Technical assistance

With the help of international partner Jouffray-Drillaud and local partner Caucasus Genetics, it was possible to import and sow the appropriate seed material in the shortest possible time. After winter, because of the COVID-19 pandemic, borders were closed, and it was very challenging to bring international experts to Georgia. The project adapted to the situation and started using online services to connect farmers to international experts.

Sowing/Soil preparation / Soil Fertilization / Weed control

For soil preparation demo farmer used heavy disc right after the harvest to reduce evaporation of moisture and raise soil absorbency. After that farmer used cultivator. In the middle of September farmer sowed fodder mix onto the demo



plot. During the spring farmer used nitrogen to increase green mass.



mass.

Results

Farmer on 2.4 hectare cut total of 2100 pieces of baling press. The average weight of baling press was 20KG. At the end of the day farmer received 42 tons of green mass. This is a great result for natural pasture as well as cultivated hay lands in this region. This is a tremendous success for the project's demo plot even with the serious drought Kakheti experienced we received around 4 times more yield than a national average. (National average in 2019 was 4.5 tons per hectare according to georstats.ge)

Analysis

To start our analyze we look at amount of baling press and the weight of these presses. Per hectare we received 840 baling press and the weight was 20KG. In Georgia in 2020 for such a premium quality baling press price was 8 GEL. To sum total gain was 6,720 GEL per hectare. But since demo farmer owns large amount of cattle he used this baling presses as a feed for the cattle, since it was already hard for him to find such a premium quality food. As farmer mentioned by using our demo hay milk yield has increased dramatically.

Recommendation

When we are using mixed fodder, it is very important to control seeding and harvest timings. This is so we can achieve maximum green mass. With right timely cutting of hay we will receive hay with large amount of calories. Therefore it is recommended that our international experts conduct trainings on this matters. This year because of COVID-19 pandemic we could not use this

hay as a silage but for next year FinExCoop will bring international expert who will train farmer to make high quality silage from hay which was harvested from our demo plots.