

Hello friends,

A collection of photos and updates from the field. This time I chose to update from the basic treatment plots on the Field crops platform and from the buffer strip on the Nahalal stream platform.

The number of credits that need to be given is enormous, and I'm concerned about unintentionally leaving someone out. So at this time, I will only say thank you to Zohar and Ronen for managing and executing Newe Ya'ar's million farm operations, to Gil Eshel, who brought us (or upon us 😊) Service Crops, to Yossi Kashti for the accompaniment in everything related to mechanization and of course for winning the roller-crimper (the masterpiece) and to Roey Egozi, who leads the rehabilitation of the Nahalal stream and the buffer zone. And there are many more.

And in short....

Field crops platform

The basic treatment plots with service crops interface are covered with an impressive "straw mat" of last season's leftover service crops (oat straw). The new roller-crimper seems to be a "game changer" when it comes to the service crops interfaces. The ground teems with life beneath the straw layer, and the conventional plots next to it suddenly look so exposed.

Very soon, there will be the sowing of service crops for the 2022 cultivation season. This year, again, a mixture of seeds will be sown: grains – oats, legumes – clover, and cruciferous – rapeseed. This year, again, corn will be sown for fodder. The decisions on crop cycles are very complex and depend on many factors, including irrigation water quality, the ability to manage a crop protection interface in a no-till interface, and research programs carried out in the field (who said that the Model Farm for research-demonstration-implementation is simple...?)

The field crops team is currently preparing for the challenge of sowing into this "mat"... Good luck!! There is undoubtedly a combination of forces and knowledge in agronomy and agrotechnics.

And.... A decision was made this year to bring service crops into the precision agriculture area south of the basic treatment plots. Another hundred hectares of conservation agriculture!

Nahalal Stream

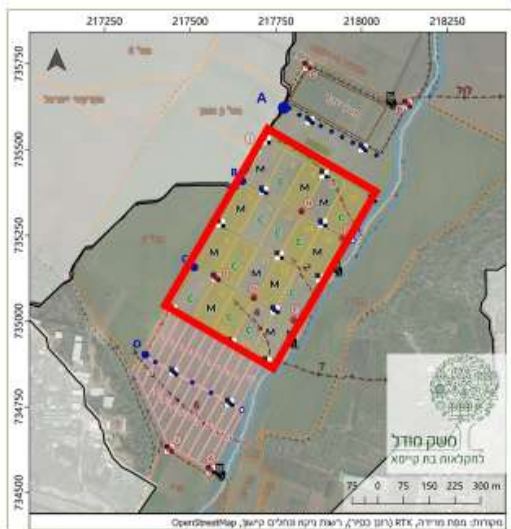
It's almost hard to keep up because, every day, something new happens there. In August, a solar covering operation was carried out in the buffer zone, covering a total area of about 10 acres. This action is intended to reduce the problem of invasive species (Ricinus/Castor-oil plant is one of the dominant ones) and thus help new vegetation of selected species establish itself in the buffer zone, which is an essential part of the river rehabilitation process. Luckily for us (and to the dismay of others...), although the covering operation was delayed, August was one of the warmest we

knew, and September was not cold either, so the solar treatment was probably significant. Of course, the area will be monitored, and it is too early to report success.

Additional images in the presentation are devoted to "soft measures" to curb water flow and reduce soil erosion. You can see the Bermuda grass sown last year along the gorges in the field crops areas and survived. You can also see some creative constructions of natural material (almond stumps) along the stream. The entire issue of planning the drainage system is still in the works, and the soft measures will probably only be effective for part of the area.

Have a nice weekend,

Yael



Field Crops Platform – Basic Treatments

Model Farm map – Newe Ya'ar Research Center



2 August 2021



Corn before the harvest. The straw layer of cover crops is visible (oat straw leftovers)



“Quality time” with Zohar today:
Three months after harvesting the corn. Soon
reseeding of cover crops will be performed.

The ground is covered with a “straw mat”.

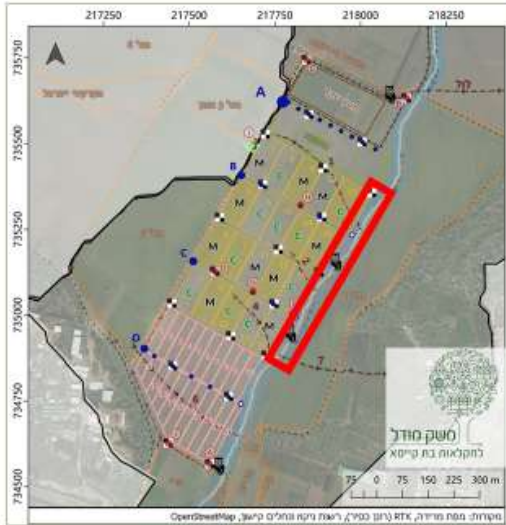
4 November 2021



4 November 2021

In the conventional tillage interface, tillage was performed using a subsoiler and disc. No harrow was used.

The soil is, of course, disrupted in comparison to the nearby plot that has not been tilled and is covered with a thick straw layer.



The Nahalal stream platform – the buffer zone (approx. one km) east of the basic treatment plot

**Model Farm map –
Newe Ya'ar Research Center**



9 August 2021

Solar covering in the buffer zone.
The map on the right shows one plot (there are 5 plots along the zone). Technically, it is difficult to lay the sheets alongside the stream's bends.



A reminder from the previous year: The fight to prevent drying of the Bermuda grass after laying the grass sods.

4 November 2021

Today: (Green!) Bermuda grass in one of the transverse channels. Effective "soft" measures to curb water flow and reduce soil erosion in some of the transverse channels in the field.



Laying of Bermuda grass sod.



4 November 2021



Creative construction from natural materials (Almond stumps) as "soft" measures to curb water flow.

(The raw material originates from almond trees uprooted from a nearby orchard in Neve Ya'ar. Performed with Landscape architecture students from the Technion)



27 October 2021

Establishment of “field laboratory” plots to examine species’ suitability for buffer zone rehabilitation in the Mediterranean climate of our region (Marcelo Steinberg and Ofer Cohen’s research group)