Regional Forum Organic Expo - Central Asia

Organics - Ambassador of Peace

2024

Hello. Eduard Merzakaev. Entrepreneur, developer and manufacturer of agro-biopreparations www.fermentus.ru , as well as Founder of the startup Token carbon soil credit. Collecting CO2 from the atmosphere into the ground to improve soil fertility.

I'm against protecting the environment.

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I'm against protecting the environment if it doesn't make a profit, because the existing mechanisms are obviously practically weak at this task.

I am in favour of a rational organic approach that first and foremost allows the inhabitants of the Planet to be provided for and protected.

But first things first:

About my path to organics.

In 2011 I invested in growing stevia (natural sugar substitute) in the Andijan region of Uzbekistan and before it became mainstream I took a course on organic farming.

In the photo: I am with the first experimental samples of stevia rootstock (roots). In the right hand stevia sample of the first season activated biostimulant fermentus, and in the left control. The increase in biomass to the control is at least 3 times more.

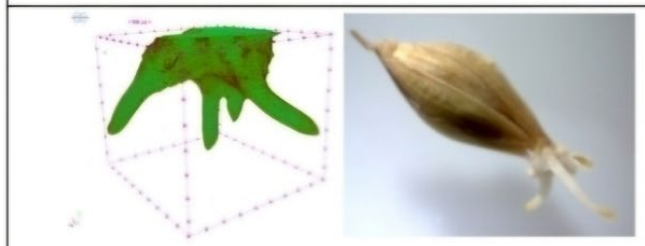
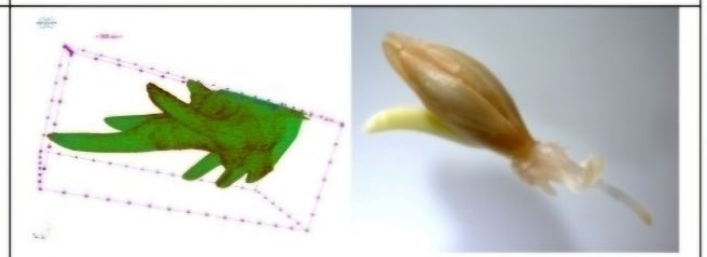
The following are photos from stevia growing fields in Uzbekistan. At that time I started to study global practices for optimising production processes in an eco context.

I have developed and produce unique biopreparations based on fermented microalgae under Fermentus TM.

My soil improver doubles the amount of useful soil native biota in less than a month and it improves soil agrochemistry indicators by tens of per cent, and the rate of organic matter growth is up to 11% only due to the activity of microorganisms, which helps to increase yields up to 30% even during extreme droughts. In addition, the biostimulant increases seed germination energy by 30% according to histology results.

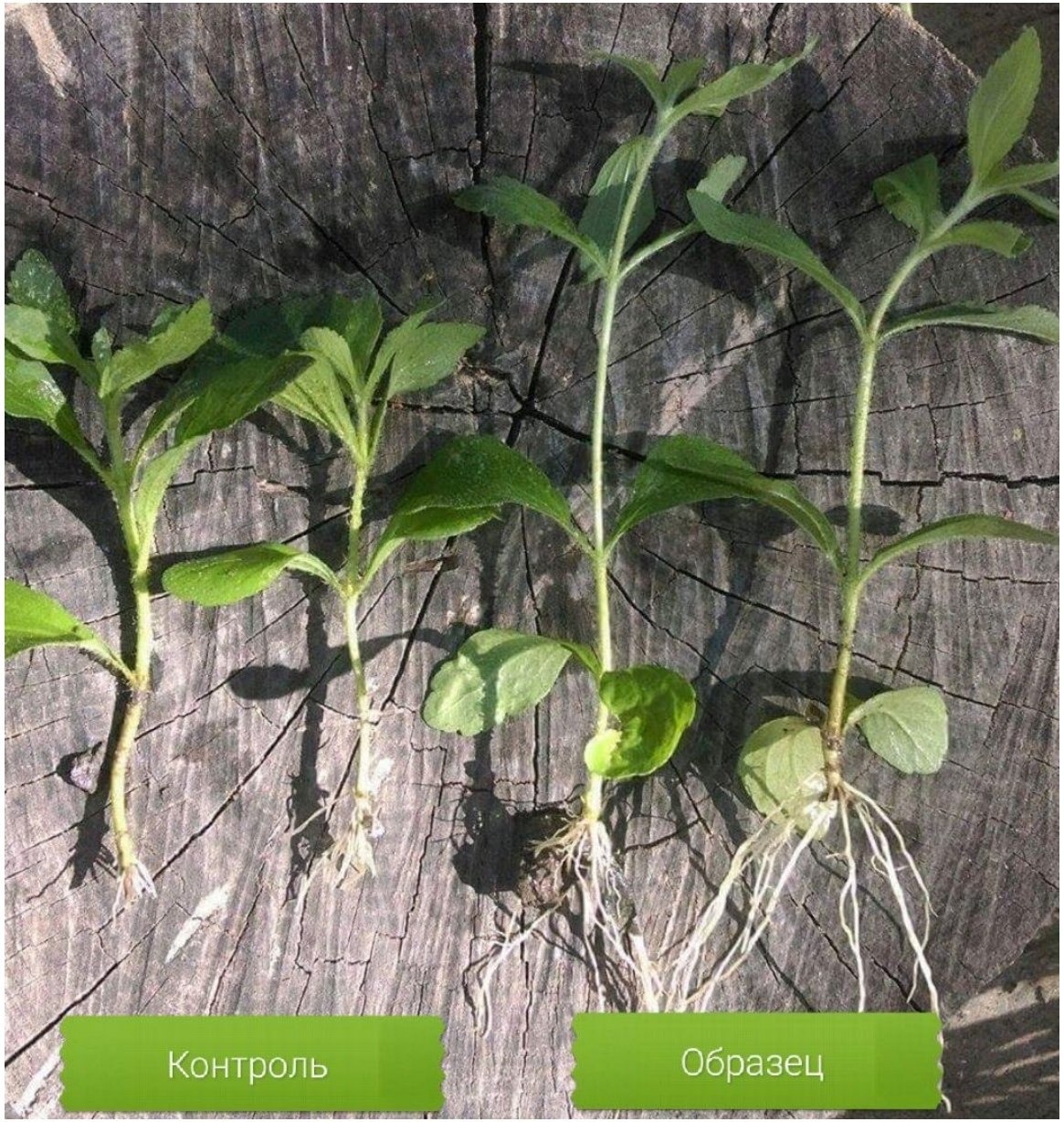
information about soil samples, sample number	**Indicator name (bacteria, microorganisms, fungi)**			
	Ammonifier, million colonies per 1 gram of soil	Nitrifiers, million colonies per 1 gram of soil	Cellulose- degrading microorganisms, thousands of colonies per 1 gramme	Micromycetes, thousands of colonies per 1 gram of soil
1. a control sample that has not been processed	26.12	20.25	52.250	12.125
2. a control sample that has been processed	48.25	44.37	84.125	24.125

computed microtomography of seeds

unprocessed	processing 30 minutes
	

On the left is the control. On the right is a sample treated once with Fermentus soil improver.

These changes contribute to a natural increase in organic matter and allow sequestration (absorption from the atmosphere and storage in the soil) 10 times more efficient CO_2 than without the application of Fermentos.



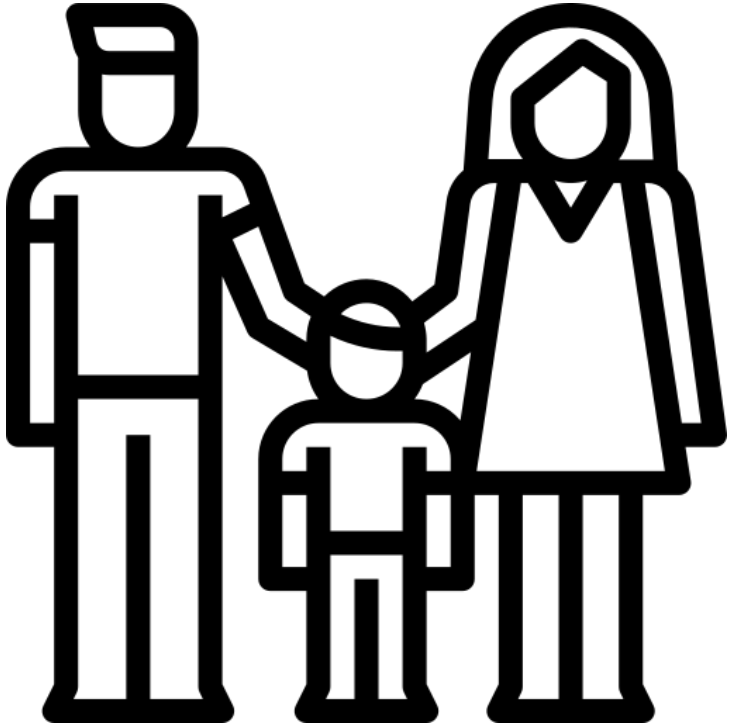
The findings provided the basis for the startup Token carbon soil credit in 2024.

Express restoration of degraded soils. Automated real-time monitoring of greenhouse gas sequestration using Blockchain technology and remote sensing of land from space.

While working on the project, in addition to the obvious objectives of reducing the amount of greenhouse gases in the atmosphere and increasing soil fertility, I drew attention to the issue of low public involvement in the climate agenda and the controversy over the need to sequester carbon dioxide.

It is difficult for people to understand how critical and even irreversible are the consequences of the global temperature increase by a fraction of a per cent of a degree.

But it is obvious to everyone the moment with decrease of quality, taste of foodstuffs, crop failures, heat, cold, fires, heating of water in the sea or your favourite lake and other climatic changes.



And then I realised that really effective saving of the Planet should be as well paid service in public-private cooperation for Mankind as any other valuable work.

There is no stopping progress. We will not give up modern medicine, electronic devices, means of transport, the Internet, etc. even though they are responsible, according to some reports, for almost half of the Planet's greenhouse gas emissions, at the same time we can change our approach to solving the climate crisis and see in it opportunities to protect and prosper our families.

The global carbon credit agenda is increasingly visible and many countries, companies and individuals are increasingly adopting new climate finance instruments in their practices. Carbon units have become a valuable asset that can address many challenges, most notably social challenges with the active involvement of society in environmental protection.

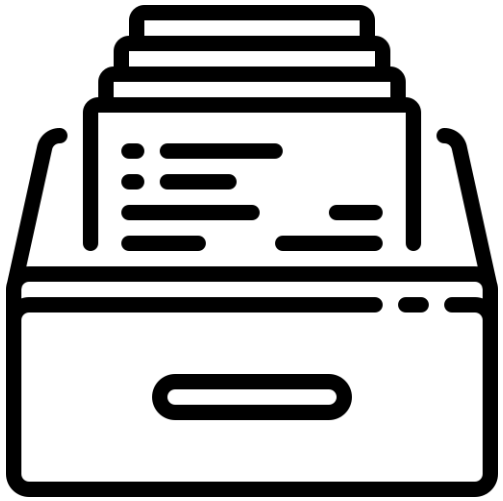
At a conservative calculation of the annual revenue potential from carbon soil credits sequestered only in arable land in Kyrgyzstan carbon dioxide can reach $ 150 million with the application of advanced technologies of carbon-saving agriculture, and in an optimistic scenario from $ 450 million. Of course, the huge potential for the generation of carbon credits have reserves and urban areas.

Carbon units stored in the soil are much more valuable and are not only the reason for the continuous improvement of soil fertility and maintenance of biodiversity, but can be stored in the ground for millennia, unlike carbon units collected through climate change projects such as forest planting, renewable energy, etc.

Forests rot and burn, and RES, although emitting greenhouse gases in the process, do not reduce them....

All this led me to the idea of introducing first in the countries participating in this organic forum, and then in international practice - unconditional basic income from climate projects, first of all for workers of organic production from 500 $ monthly and indefinitely, and later for all people on Earth.

I believe that this measure will help to popularise environmental awareness and stimulate the development of climate projects all over the planet.



The thin spot of this initiative to date is the lack of transparency in project administration, as well as the high cost of monitoring greenhouse gas sequestration, validation, verification and certification..

The modern approach offers a solution to the first question:

Blockchain is a transparent, efficient and effective digital financial instrument.

Our startup is dealing with the issue, including optimisation, cost reduction and automation of carbon dioxide sequestration monitoring.

I would like to emphasise that as long as we view ecology as an object of sacred worship, we are literally losing its physical component.

The agro-industry itself is generally unprofitable all over the world, and there is no need to talk about its organic branch.

Villagers are migrating to the cities in the hope of a better share, and intensive farming methods are just an adaptation to the constant new challenges in agribusiness.

Climate projects for the restoration of degraded soils are a service, including the reduction of greenhouse gases from the planet's atmosphere, such as water purification in a closed cycle in a factory. The market, not ecology, dictates that manufacturers implement this kind of initiatives.

Environmental protection is as much a service to mankind as the Internet, mobile phones, car washing, etc. and the Central Asian countries have all the conditions for the formation of the locomotive of the eco-industry such as organic gastro tours, ethno festivals, etc.

When tourists visit Central Asian countries, I propose to place on websites and in the form of QR codes in aeroplanes, airports on the packaging of eco goods, tickets, etc. the opportunity to pay a voluntary tax to reduce the carbon footprint.

The practice shows that both global and local approaches to solving climate challenges are still not effective enough, and perhaps the answer to this problem lies in the cooperation of Central Asian countries with China.

The Chinese character 危机, pinyin wēijī, is often referred to in motivational texts as consisting of two characters meaning ‘danger’ and ‘opportunity’ respectively.

Given the ambitious ‘One Belt, One Road’ initiative and the growing need for environmentally friendly solutions, Organic Forum member countries have a unique opportunity to become the first ‘green’ hub-bank and world leaders in regenerative carbon farming and offer China solutions to reduce the carbon footprint of the New Silk Road programme by reducing its, including external debts, with carbon credits, namely, soil credits.

Improving soil fertility - protecting both water resources and national security issues.

The vast majority of the planet's population has, at best, only thought about climate change.

I propose to increase the involvement of global network users in the climate agenda, namely using gamification and blockchain to allow people online to earn money from climate projects with the possibility of offline influence on the revitalisation of ecosystems. Completing tasks in games will provide an opportunity to turn game tokens into real money and monetise, including through advertising.

According to the FAO, every 5 seconds an area of land the size of a football field is eroded around the world.

In the framework of the startup Token Carbon Soil Credit, at the moment, field trials of a new concentrated soil improver are being conducted at application rates from 100 g per 1 ha. The research is dictated by the reduction of logistics costs.

Native soil biota acts as a generator of soil carbon credits.

Preliminary soil analysis data is optimistic and has already shown a 10-15% slowdown in the rate of soil degradation over the first 3 weeks of total drought.

In addition,

work is planned to develop an immune biopreparation for cattle and other animals with the function of increasing the efficiency of natural fertilisation from animals.

Cows are living eco mini farms to reduce greenhouse gases in the atmosphere and increase pasture fertility.

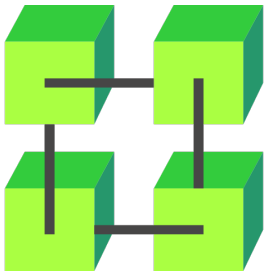
There are also developments on the production of biostimulant for increasing seed germination energy with parallel improvement of soil quality by crops stimulating soil fertility with the function of CO_2 and nitrogen sequestration.

Cultivation of high carbon intensive crops - miscanthus, bamboo, paulownia, industrial hemp, etc.

As an additional resource for the production of cellulose, including for medical needs, wood, biofuels, eco-disposable tableware, cattle bedding, fodder, honey, etc.

Financial global public engagement on the climate agenda may be the only way to save planet Earth from catastrophe.

My proposed approach to solving the global environmental crisis has already started to have a positive effect.



Protection of Nature must have a Blockchain financial basis, backed by an instrument - carbon units

I emphasise - not with oil, not with gold, not with faith in a bright future,

And the fertile soil that has fed us, is feeding us, and will continue to feed us.

Thank you for your attention.

The initiator of the changes,

Eduard Merzakayev.

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