

Bio gel. New technology for soil revival



What is **Bio g[®]gel** made of. Diversity of soils and bacteria

My name is **Bacillus subtilis**.
I convert soil phosphorus into
an "edible" form for plants. I
struggle with pathogens of
fungal diseases.

And I'm **Oligotrophe**. I live
in sands and sandy soils. I
reliably protect plants
from enemies of phyto-
pathogens.



I - Mrs. **Lactobacillus** - an
anaerob. It contains useful
amino acids and vitamins.

I am Mrs. **Azotobacter**, an
aerobic, I feed on fresh
nitrogen from the air. I
saturate soils and plants
with it.

We have many other friends and relatives inside the product. All of them
just did not find a place into a small picture-house called **BIO-GEL[®]**

What is **Bio g[®]gel** made of. Diversity of soils and bacteria



What is **Bio**  **gel** made of?



warmth

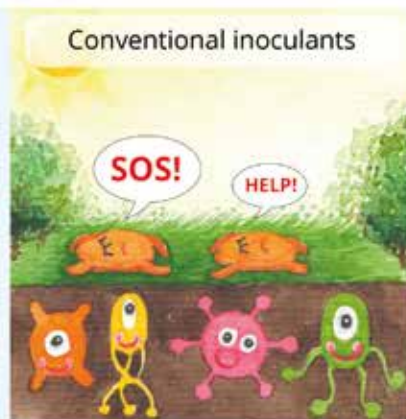


cold

Bacteria hardening

Bio[®]gel is effective despite heat and ultraviolet

Conventional inoculants perish if affected by ultraviolet (sunlight)



BIO-GEL bacteria are not harmed by ultraviolet

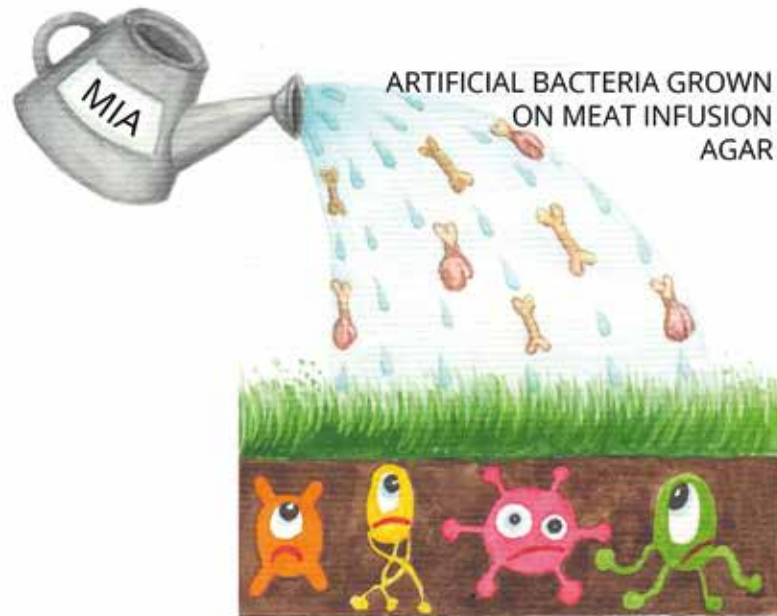
Bio[®]gel is a prebiotic for soils and plants

The depletion of the soil bacterial profile



Soil bacterial diversity revival

Bio gel is a prebiotic for soils and plants



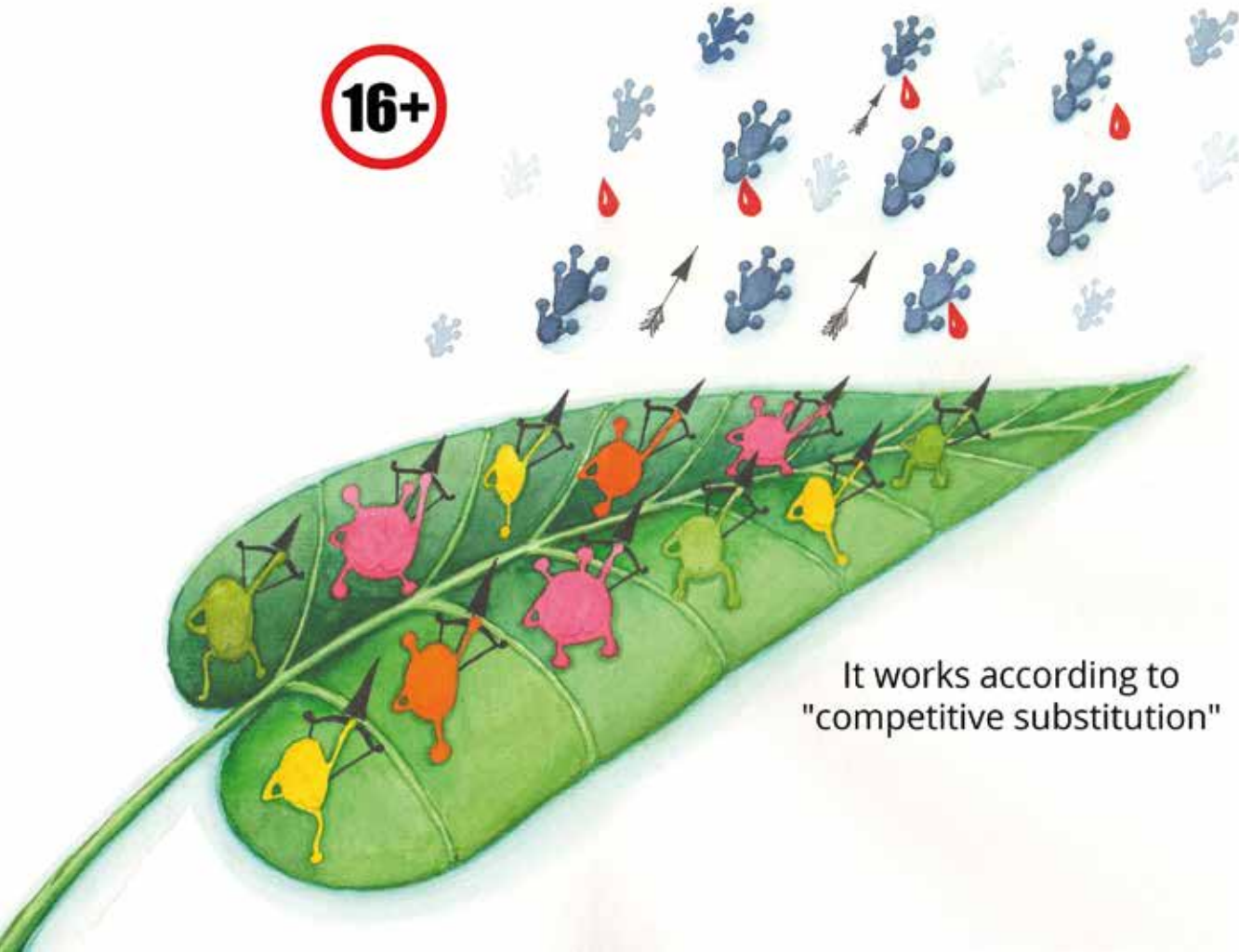
1. I am hungry!
2. Feed me!
3. I don't eat meat :(
4. Me too!



1. Thank you fed!
2. It's tasty!
3. I want too!
4. I want more!

Bio  gel[®] is a natural fungicide

16+



It works according to
"competitive substitution"

Bio gel. Spraying plants revives "dead" soil

*Hop-hop from a flower to a leaf,
from a leaf to a stem,
from a stem into the dead soil
to make it live again.*



Bio[®]gel, a powerful root stimulating agent

Day 1



Sowing in the conventional way. Before sowing seeds are treated with inoculants (biological products with a great amount of beneficial microbiota). Under the conditions of drought, seed inoculation with artificial bacteria present in such inoculants is ineffective.

Day 1



In the proposed method, seed inoculation is carried out through the soil surface. The soil surface was sprayed with 1% BIO-GEL solution. After 1-2 hours the microorganisms penetrate inside through the soil surface.

Days 2-3



BIO-GEL microorganisms penetrate the seed placement zone, structure the soil, making it fluffier, saturating it with amino acids, enzymes, vitamins, and humic compounds. Seed germination accelerates.

Days 7-10



BIO-GEL microbiota forms a rhizosphere around the roots in the form of a "cover" consisting of bacteria, soil particles and exudates (root mucous secretions).

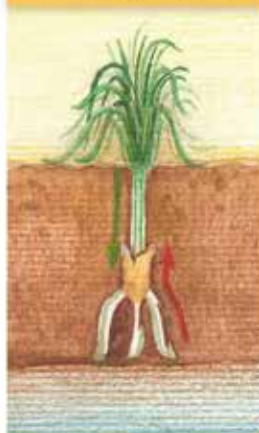
Bio[®]gel. Cure for drought

BIO-GEL DROUGHT STARTS



Plant roots with a cover consisting of powerful rhizosphere formed by BIO-GEL quickly reach the soil layer saturated with water. This allows the plant to survive drought.

Conventional technology. DROUGHT STARTS



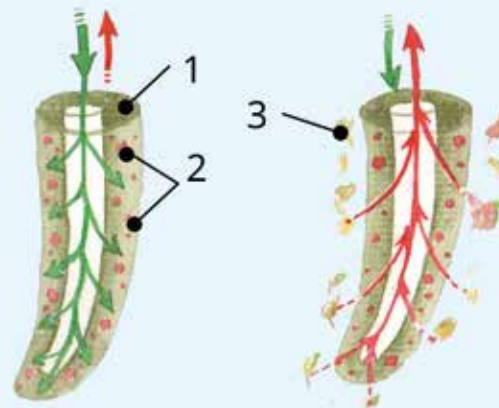
The poorly developed rhizosphere around the roots has not developed properly due to the scarcity of nutrition. Root growth is inhibited. Plants may not survive the drought.

BIO-GEL DROUGHT



Due to exudate mucus, moist soil sticks to the roots. The root penetrates deep into the soil and is saturated with water. Due to the moisture in the root and around it, the plant will survive.

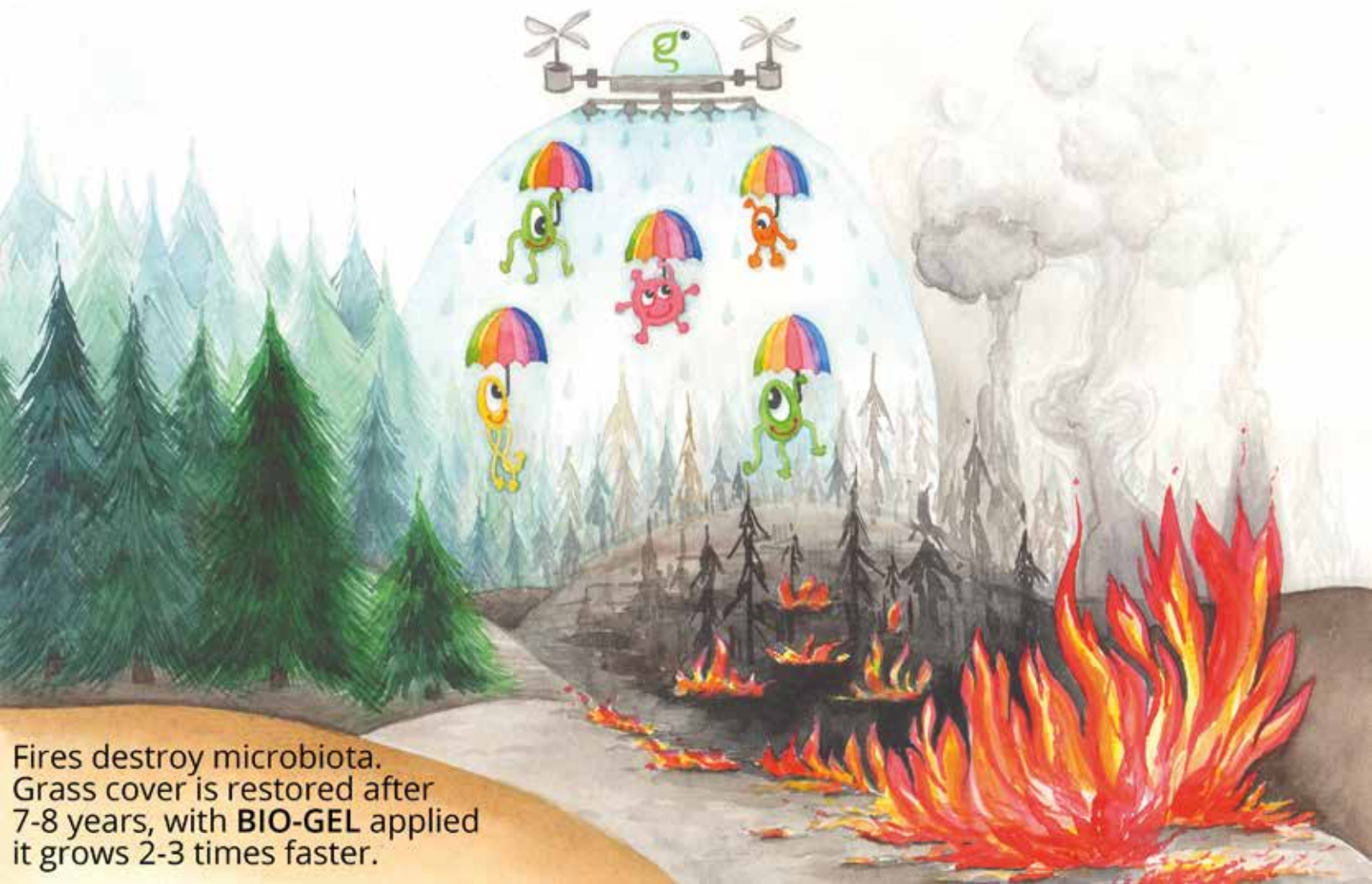
Bacteria secrete enzymes, thus decomposing plant debris in the soil. Microbiota helps to deliver nutrients to roots.



1. Rhizosphere is microbiota life area.
2. Microbiota, bacteria, ray fungi.
3. Plant debris and nutrients.

➡ Nutrients get from soil to roots.
➡ Exudates are root discharges into the soil.

Bio gel. Reviving forests in places of deserts and fires



Fires destroy microbiota.
Grass cover is restored after
7-8 years, with **BIO-GEL** applied
it grows 2-3 times faster.