

BaltChem OÜ

- **Bakterpreparaadid ja nende kasutamine tava- ja mahepõllumajanduses.**



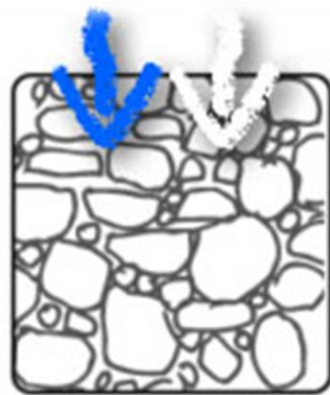
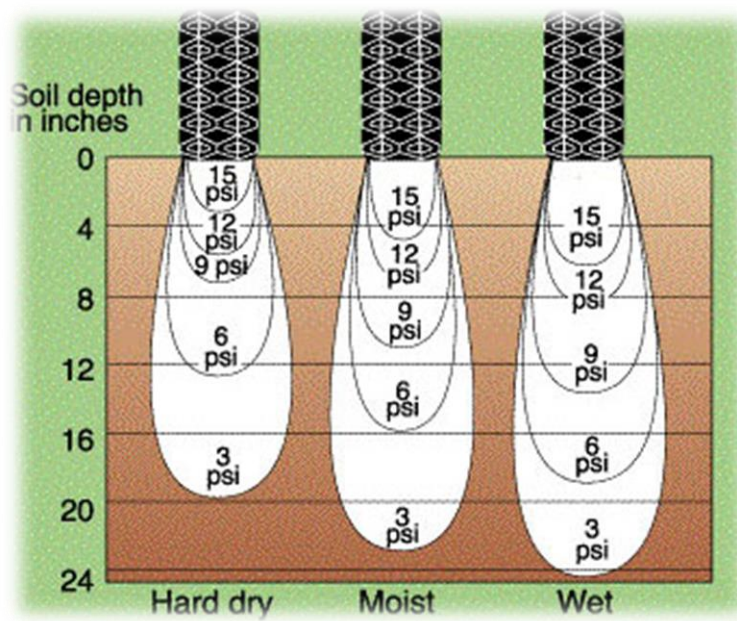
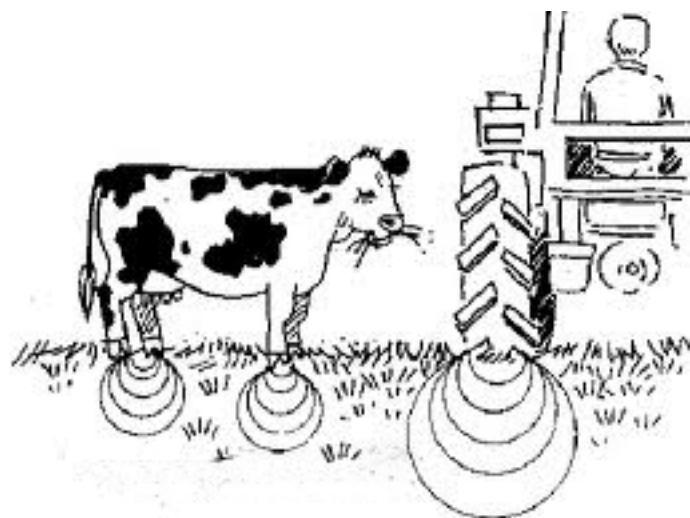






























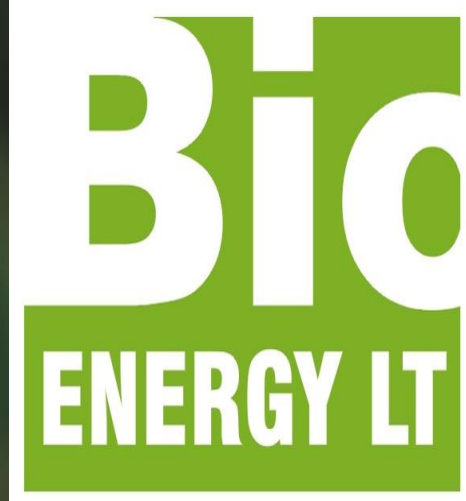






Me ei kasvata taimi.

Me kasvatame mulda ja mullas
kasvavad taimed.



Let's Grow Together!



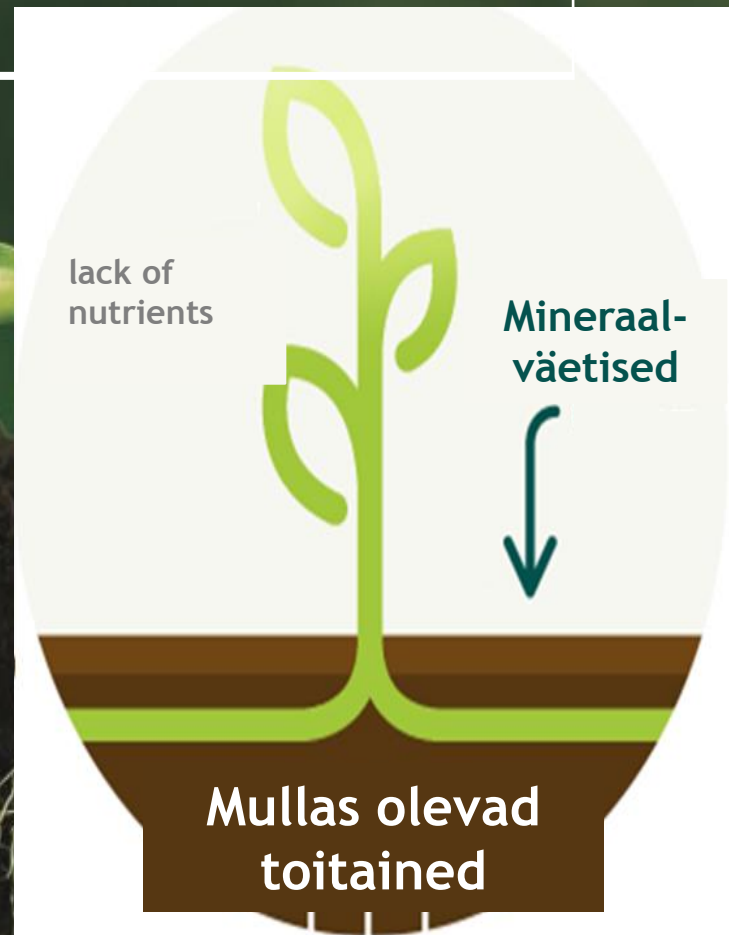
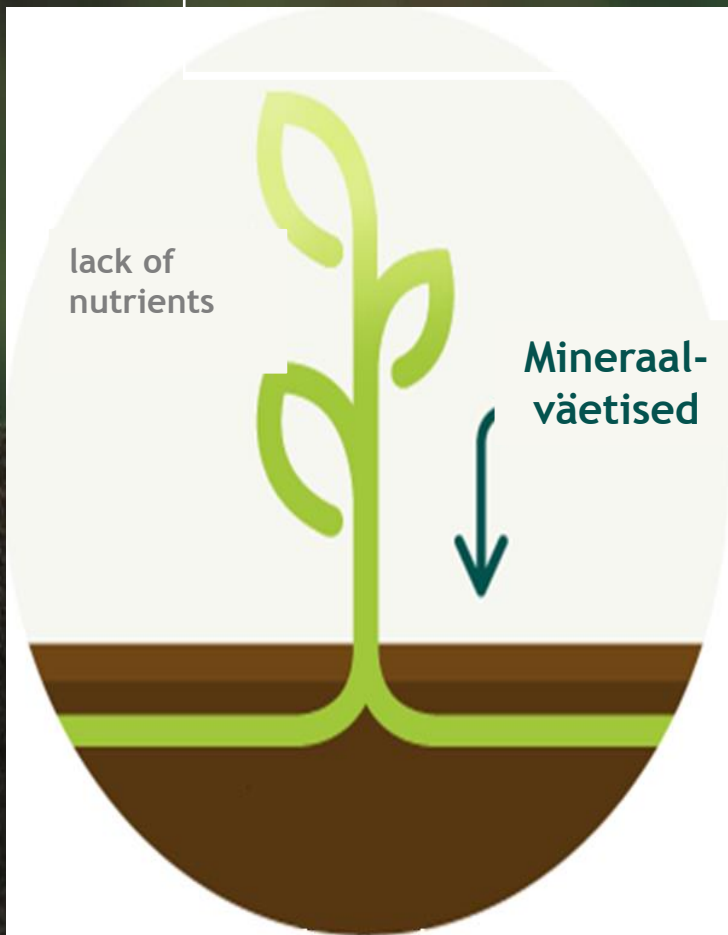
HIGH QUALITY PRODUCTS

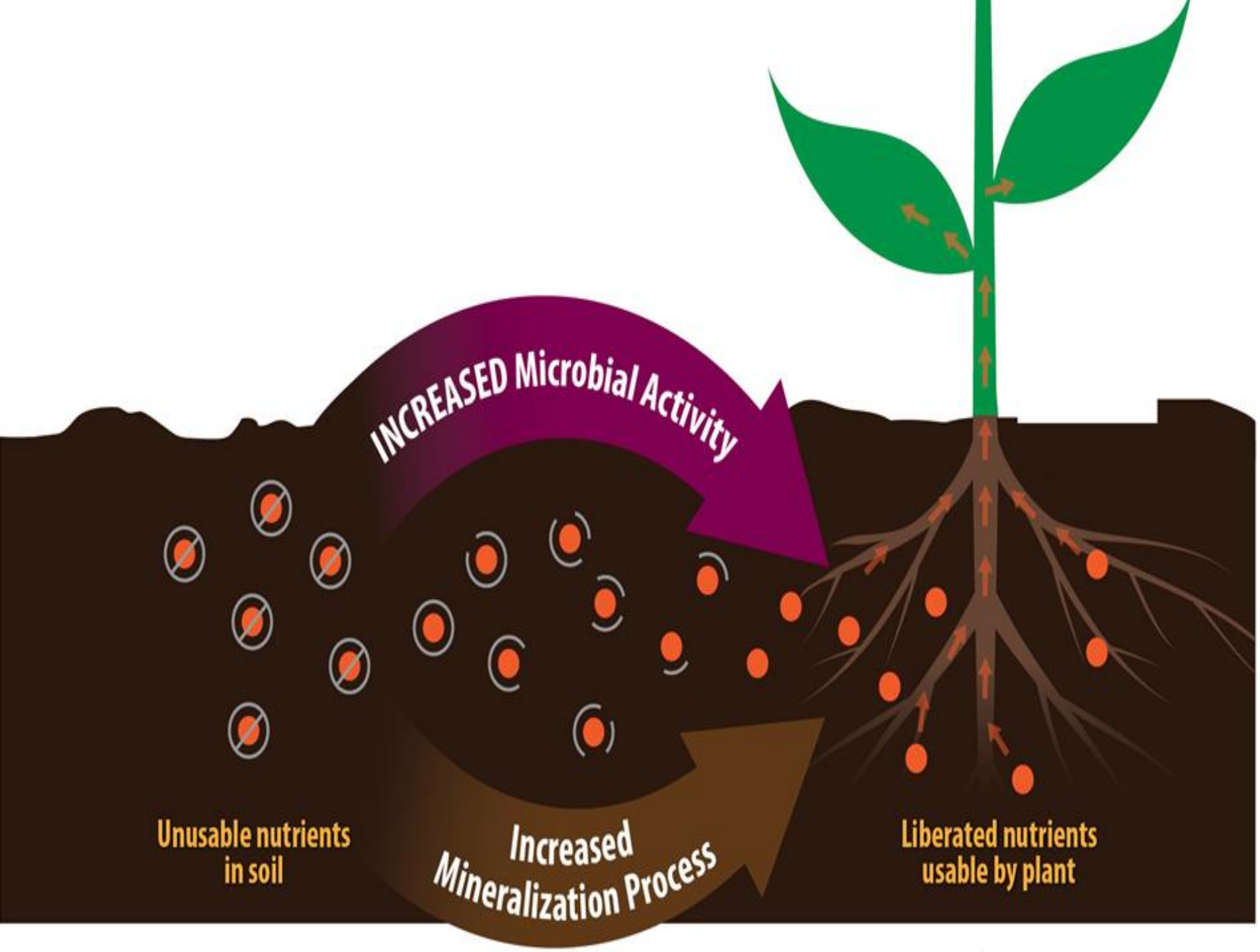


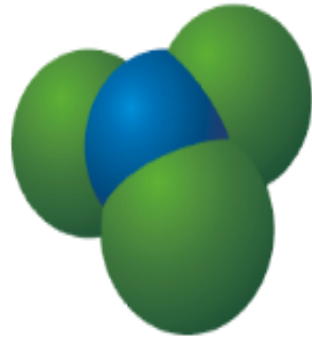
Kaks lähenemist taime toitumisele

Toitainete vajaduse
katmine
mineraalväetistega

Taimede toitumine
mineraalväetistest ja
mullas olevate toitainete
arvelt



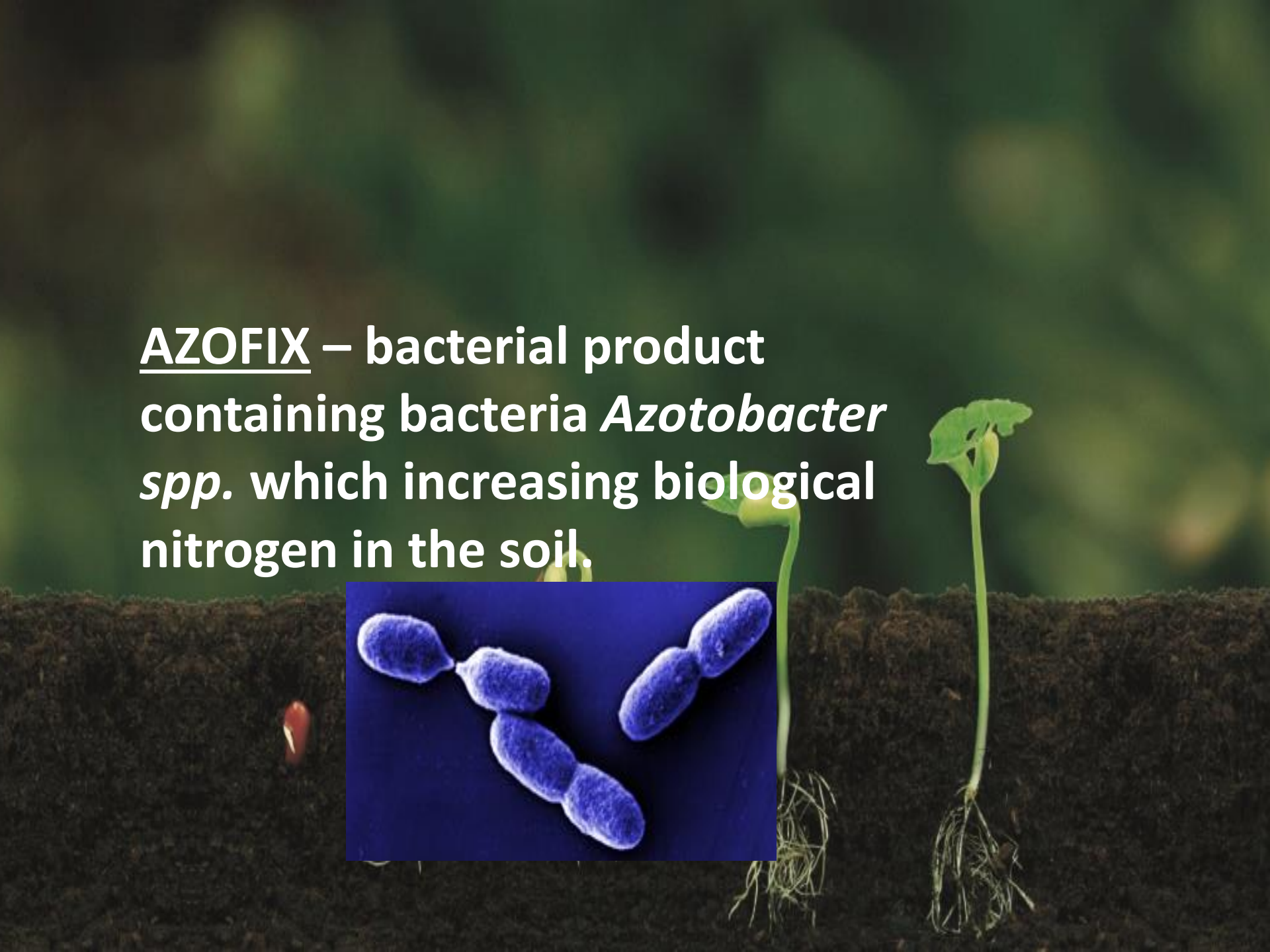


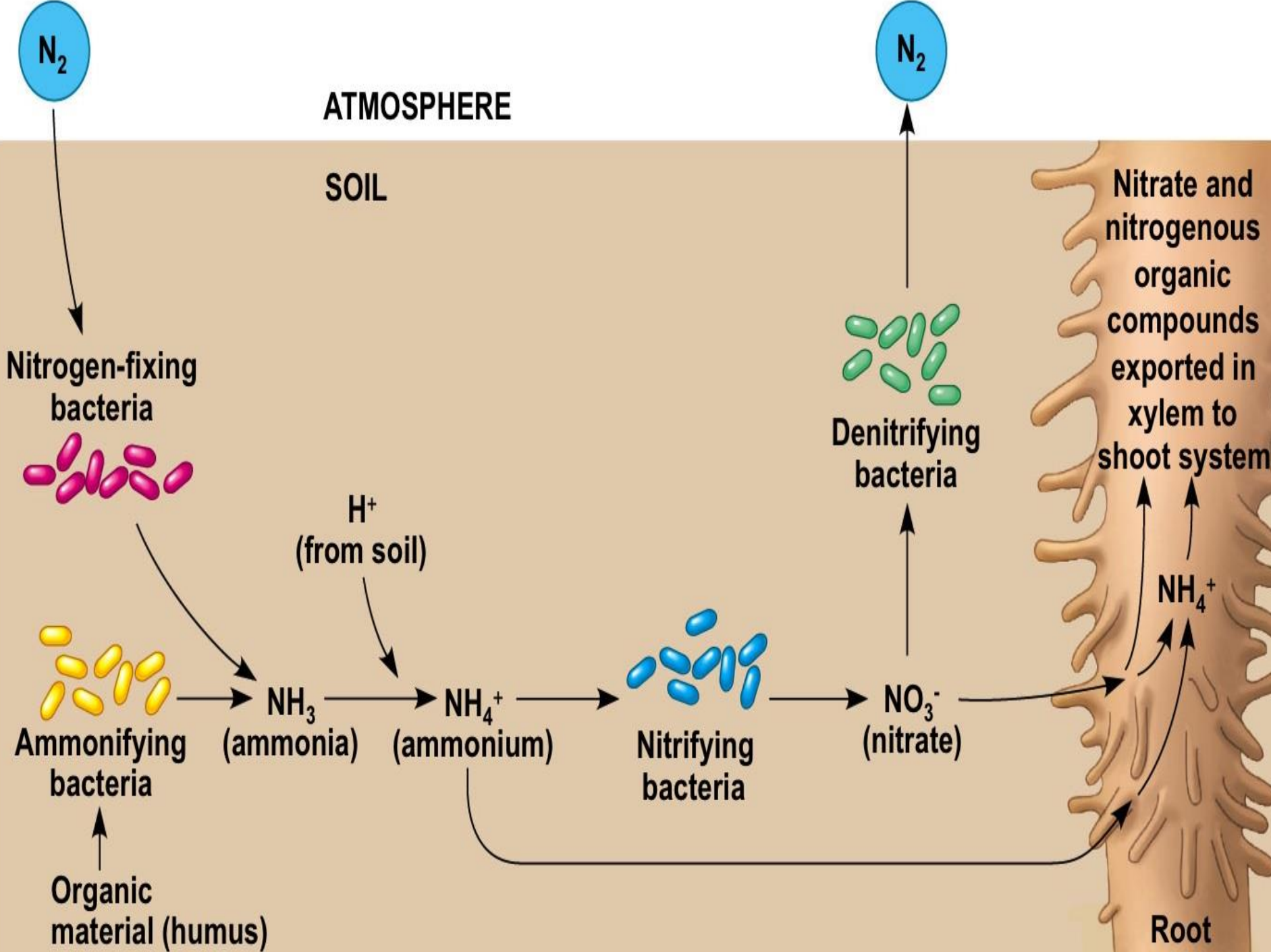


AZOFIX

Accumulate nitrogen

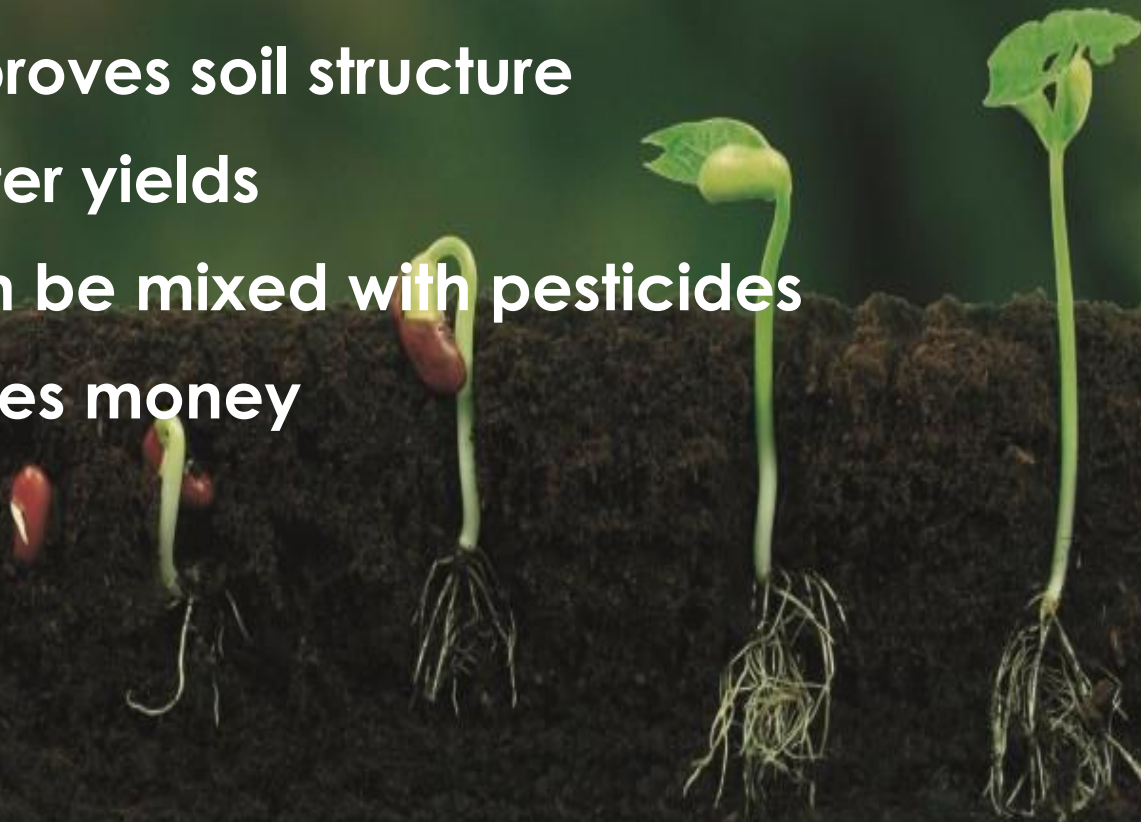
AZOFIX – bacterial product containing bacteria *Azotobacter spp.* which increasing biological nitrogen in the soil.





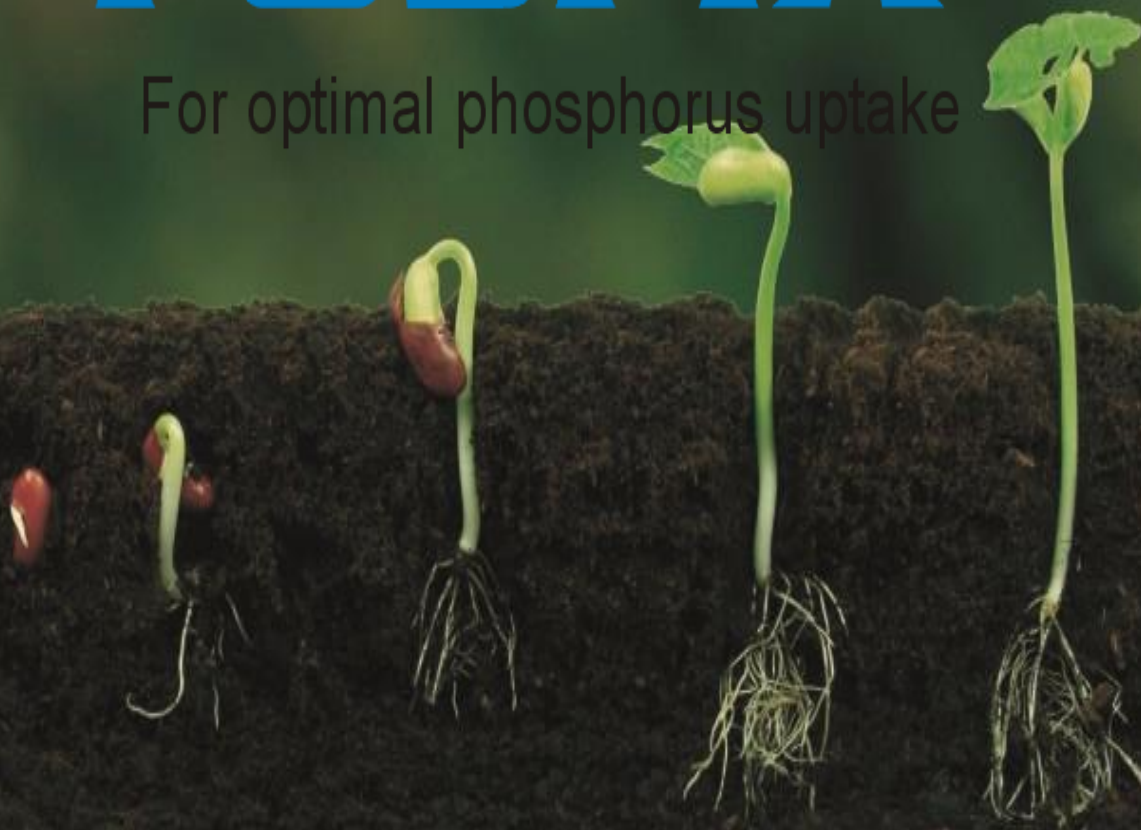


- ▶ Up to 100 kg of biological nitrogen more in 1 hectare over the growing season
- ▶ Improves soil structure
- ▶ Better yields
- ▶ Can be mixed with pesticides
- ▶ Saves money



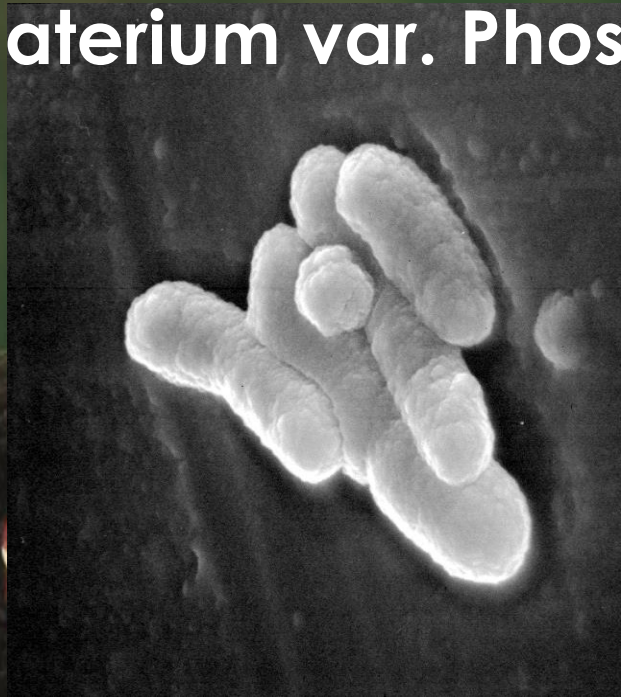
FOSFIX[®]

For optimal phosphorus uptake



Fosfix – biological preparation increases phosphorus availability to the plants in your soil.

Product contains of bacteria *Bacillus megaterium* var. *Phosphaticum*.

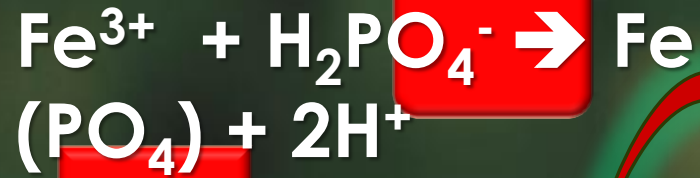


02 20 21 17





ACIDIC

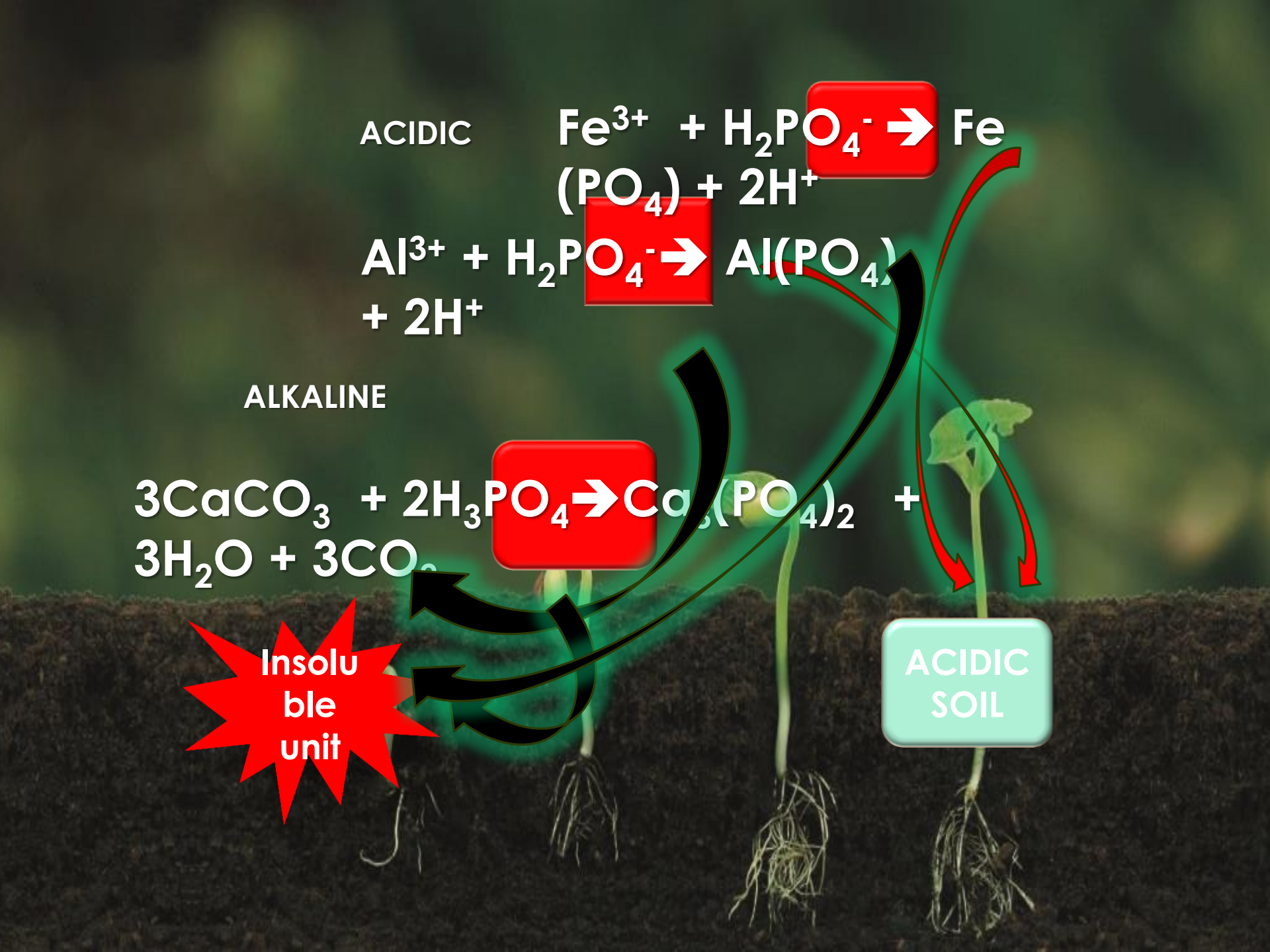


ALKALINE



Insoluble unit

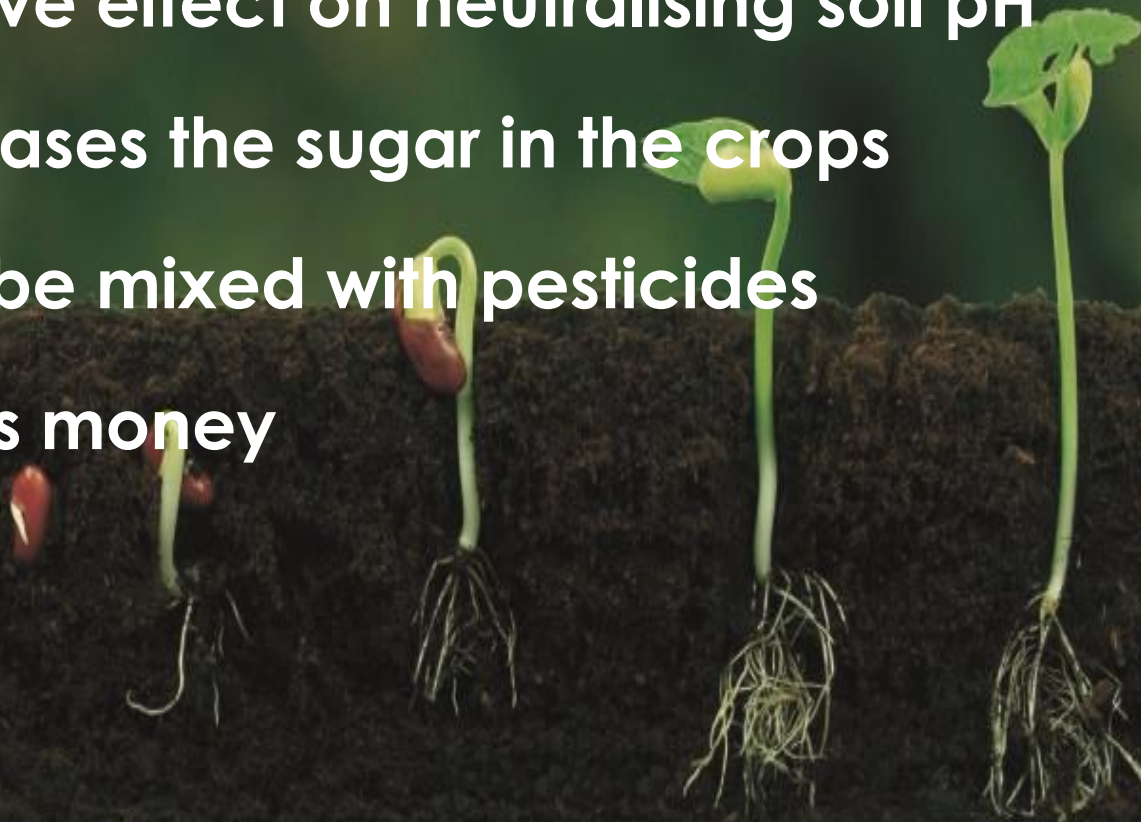
ACIDIC SOIL



FOSFIX[®]

For optimal phosphorus uptake

- ▶ **Increases phosphorus availability to plants**
- ▶ **Positive effect on neutralising soil pH**
- ▶ **Increases the sugar in the crops**
- ▶ **Can be mixed with pesticides**
- ▶ **Saves money**

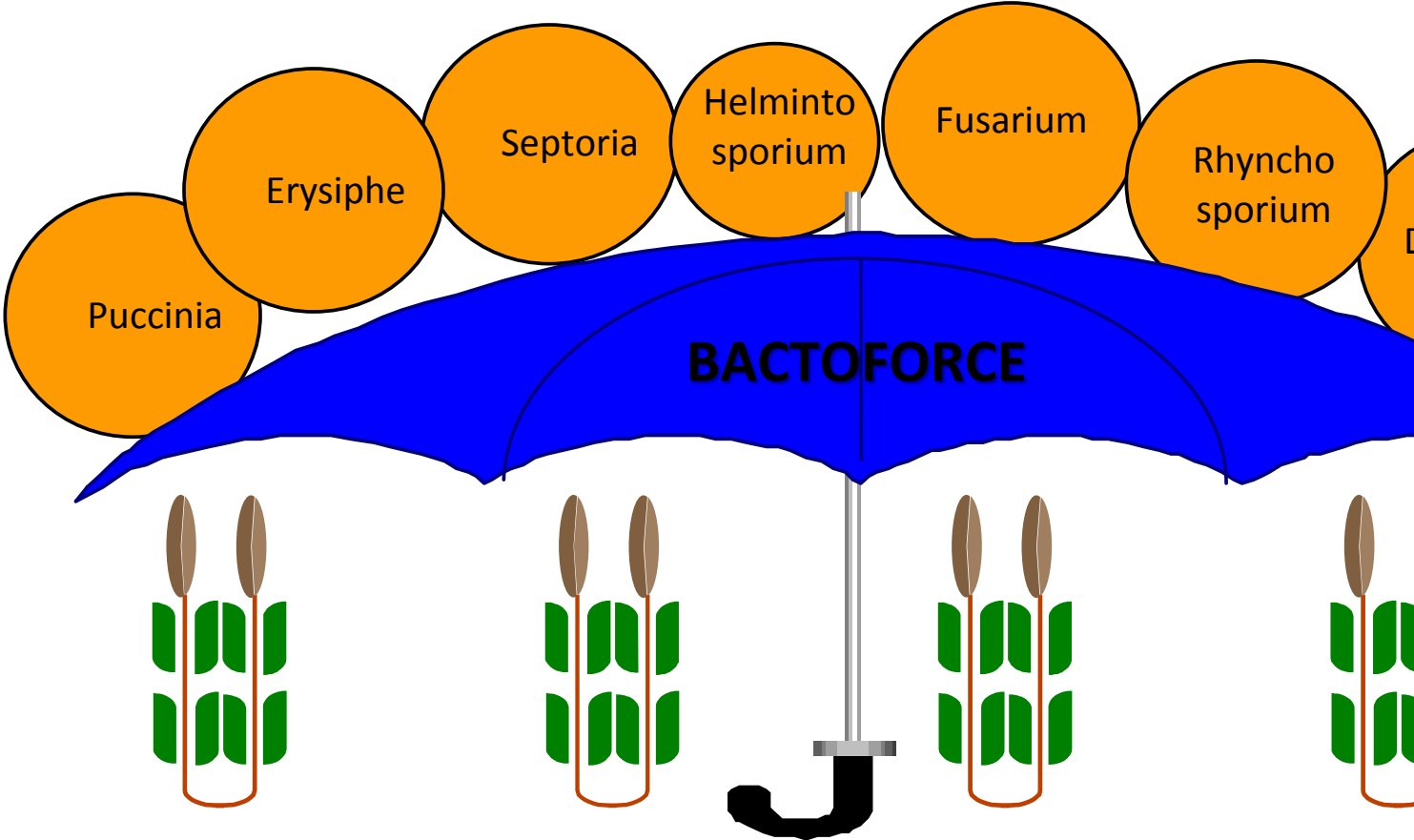


BACTOFORCE[®]

Bactoforce Healthy Soil = Healthy Plants

- ▶ **BACTOFORCE** – biological preparation containing *Bacillus Subtilis* which produces antibiotics, including some called iturins, which help the bacteria compete with other microorganisms either by killing them or by reducing their growth rate.





BACTOFORCE[®]

Bactoforce Healthy Soil = Healthy Plants

- ▶ **Increases resistance to disease**
- ▶ **The prevalence of diseases in plants reduced up to 70%**
- ▶ **Recover natural soil balance.**
- ▶ **Same food base as pathogens**
- ▶ **Saves money**



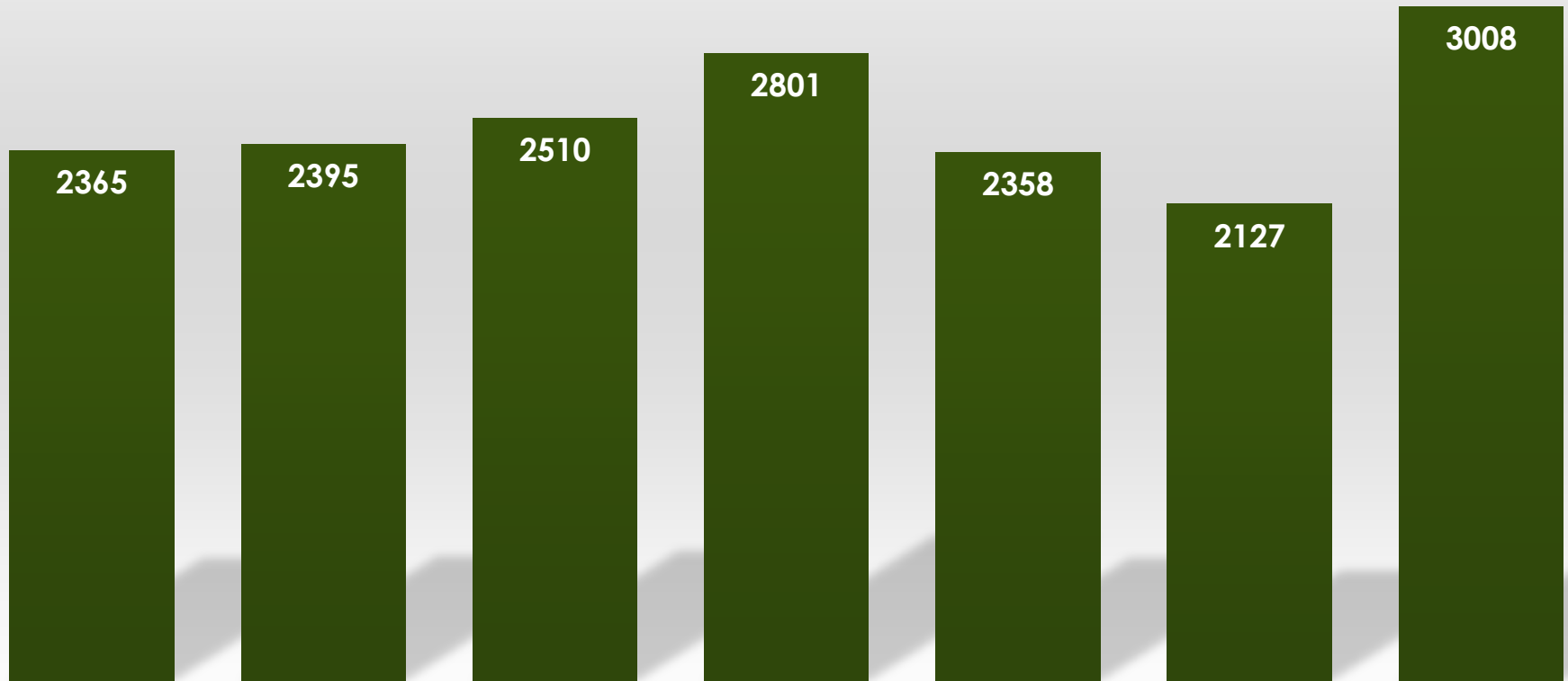
EESTI TAIMEKASVATUSE INSTITUUT Saku 2016

variant	Suvinisu		Oder	
	Helelaiksus	Jahukaste	Võrklaiksus	Pruunlaiksus
Kontroll (ainult baaspritsimine)	51,7	3,4	7,7	3,6
Kontroll (pritsimata)	55,3	7,5	59,0	9,3
F07-P16 x/1L	19,0	5,2	5,9	3,2
F07-P16 1L/1L	15,0	3,9	7,7	3,4
F07-P16 0.75/0.75	28,7	5,1	9,2	3,3
F07-P16 0.5 / 0.5	35,8	5,5	13,6	3,2
Mirage 1L/1L	15,3	4,8	10,0	3,8

FIRST SPRAY BBCH 31-32

SECOND BBCH 47-55

SUVINISU SAAK KG/HA



Kontroll (ainult baaspritsimine)

Kontroll (pritsimata)

x / 1 L

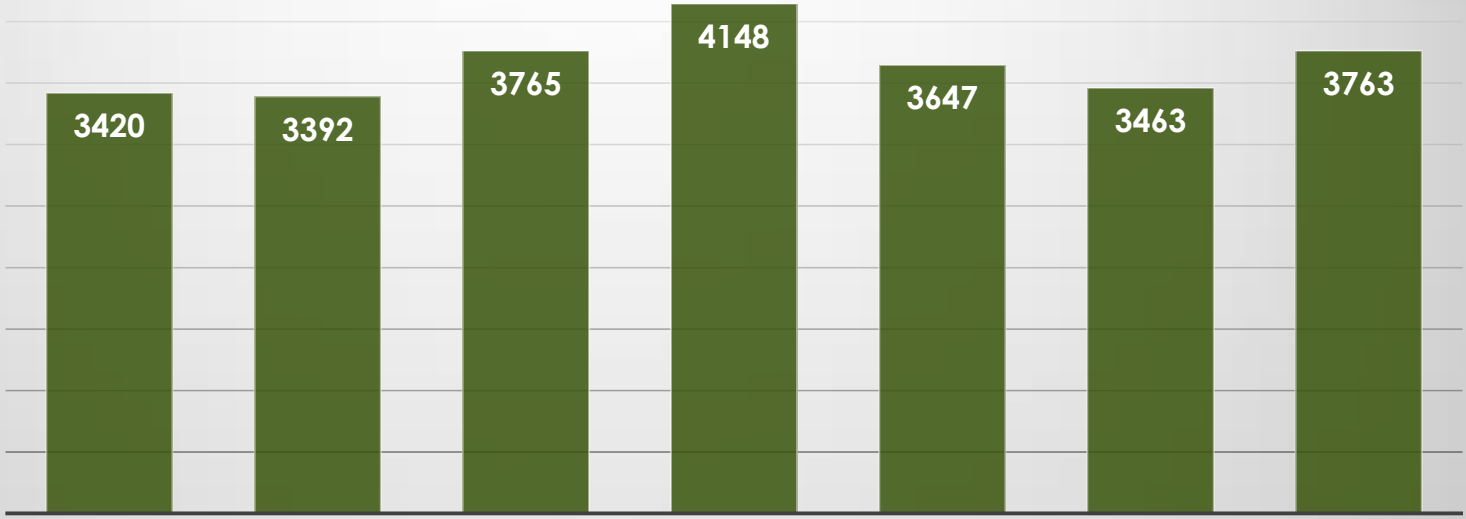
1L/1L

0,75L/0,75

0,5L/0,5L

1L/1L

ODRA SAAK KG/HA



KONTROLL (AINULT BAASPRITSIMINE)

KONTROLL (PRITSIMATA)

X/1L

1L/1L

0,75/0,75L

0,5L/0,5L

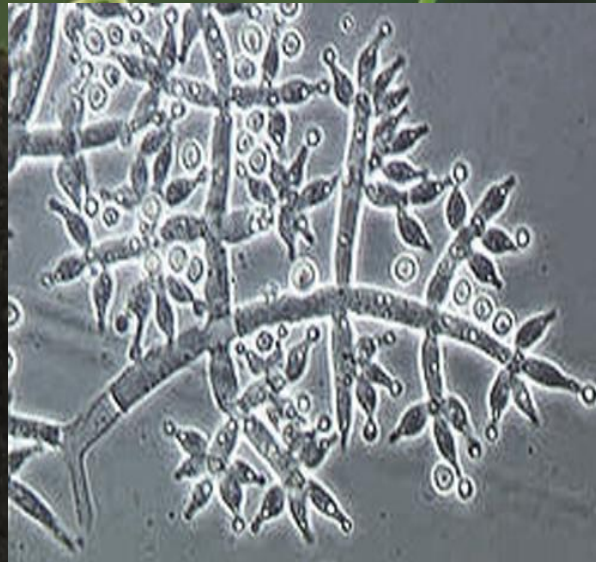
1L/1L

RUINEX[®]

Better mineralization



► **RUINEX** –decompose crop residues
(organic matter) by complex of fungi
**Trichoderma spp., Bacteria and
enzymes**





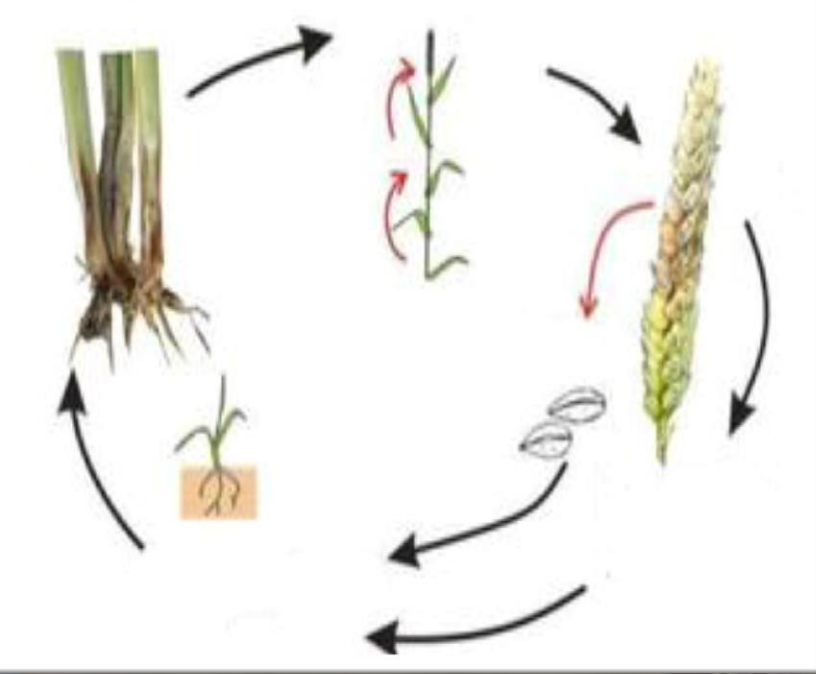
Why farmers should **NOT** burn it?



Per hectare, about
5 tons of straw are left

1 ton of straw contains:

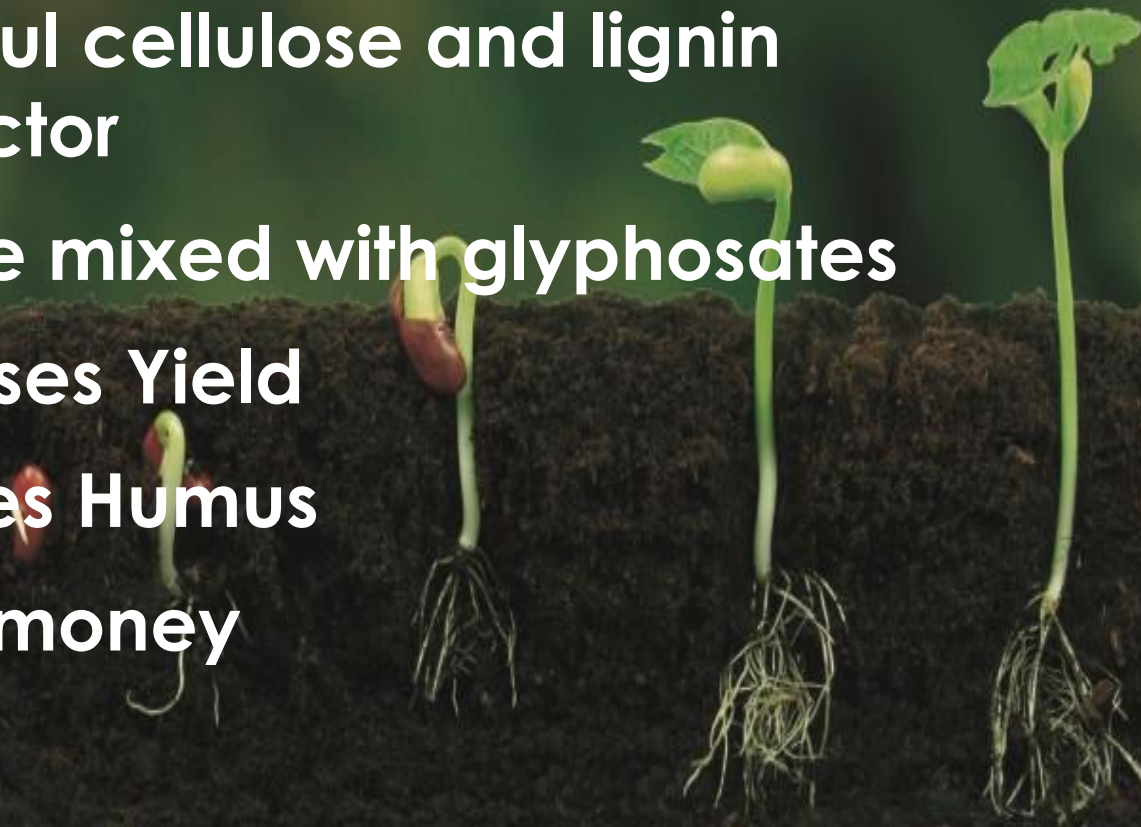
- 5 to 8 kg nitrogen
- 1.2 kg phosphorous
- 20 kg potassium
- 40 kg silica
- 400 kg carbon



RUINEX[®]

Better mineralization

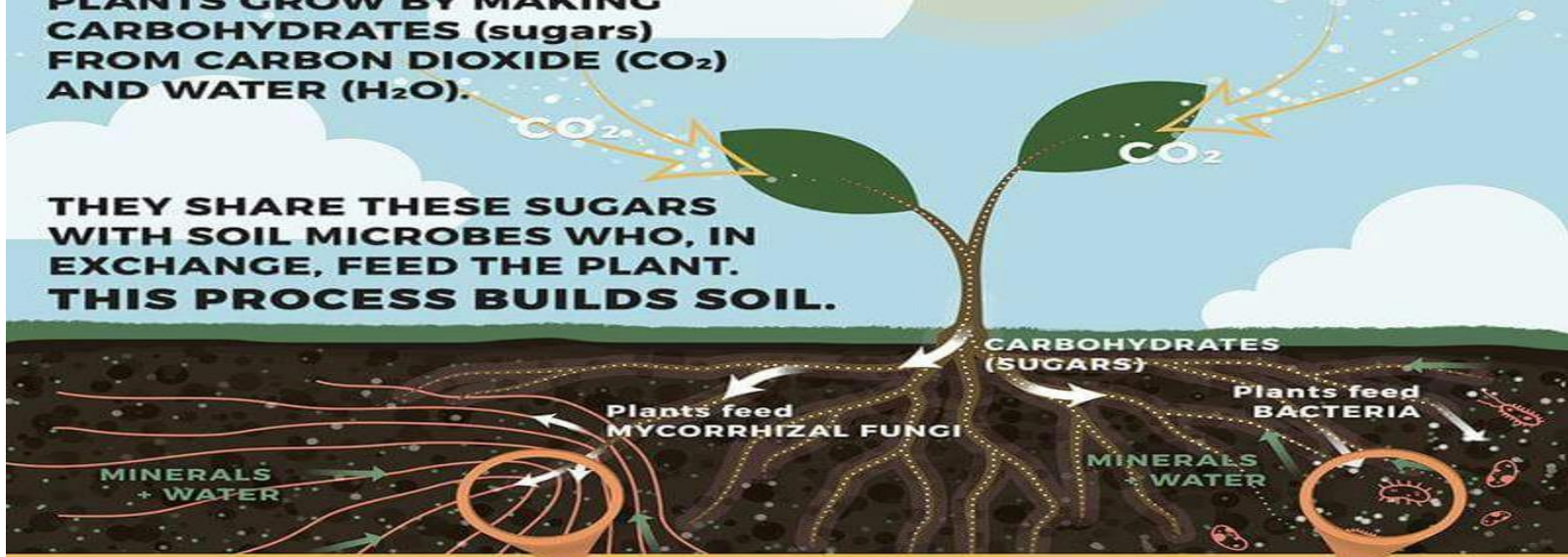
- ▶ Improves the health of the soil.
- ▶ Accelerates decomposition of plant residues.
- ▶ Powerful cellulose and lignin destructor
- ▶ Can be mixed with glyphosates
- ▶ Increases Yield
- ▶ Restores Humus
- ▶ Saves money



BUILDING HEALTHY SOIL SOLVES EVERYTHING!

PLANTS GROW BY MAKING CARBOHYDRATES (sugars) FROM CARBON DIOXIDE (CO₂) AND WATER (H₂O).

THEY SHARE THESE SUGARS WITH SOIL MICROBES WHO, IN EXCHANGE, FEED THE PLANT. THIS PROCESS BUILDS SOIL.



MYCORRHIZAL FUNGI attach to the roots to be fed and in return give nutrients + water to the plant, increasing root capacity x1000s.

The fungi help produce soil aggregates with a sticky protein called glomalin that can last for decades as soil carbon.

MYCORRHIZAL AGGREGATES

*humus and soil aggregates are also produced by earthworms, nematodes, protozoa and various arthropods.

Roots exude sugars to feed **BACTERIAL COLONIES** whose enzymes break down soil particles into plant available nutrients.

Bacteria's life, death, and defecation create smaller soil aggregates or "humus" that can last for decades as soil carbon.

BACTERIA AGGREGATES

HEALTHY SOIL IS FULL OF CARBON BASED SOIL AGGREGATES AND SOIL LIFE.

O₂

O₂

O₂

O₂



HEALTHY SOIL:

Increased Soil Carbon
(Reverses climate change)

Increased Water Holding Capacity and Infiltration
(Improves drought tolerance and restores water supplies)

Increased Soil Aggregation and Soil Life
(More fertility and ability to feed the world)

Increased Nutrient Availability and Retention



UNHEALTHY (DEAD) SOIL:

Decreased Soil Carbon
(Contributes to climate change)

Decreased Water Holding and Infiltration
(Increases water runoff and drought)

Decreased Aggregation and Soil Life
(Less fertility and more soil erosion causes desertification)

Decreased Nutrient Availability and Retention



MAX PROLIN™

Pure L- α proline



► **MaxProlin – inrepreccable amino acid L-Proline.**



- ▶ **L-Proline helps to protect carbon and nitrogen reserves in the plant**
- ▶ **L-proline is necessary for pollen and, later, for seeds formation**
- ▶ **Activates respiration**
- ▶ **Reduces water losses**
- ▶ **Antistressor to abiotic and biotic stress**

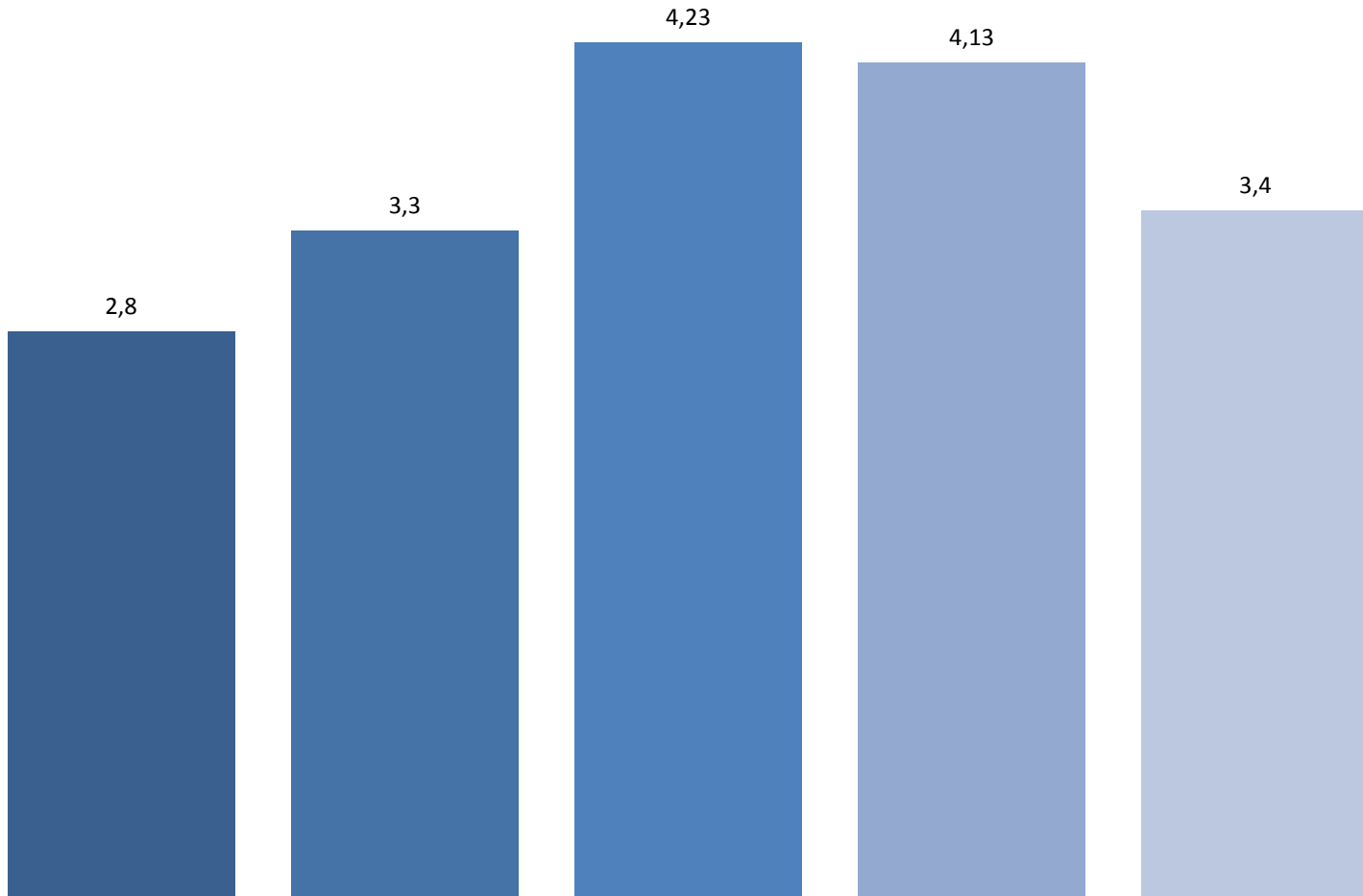


Mahe katse, talinisu: Fredis 2016 külv

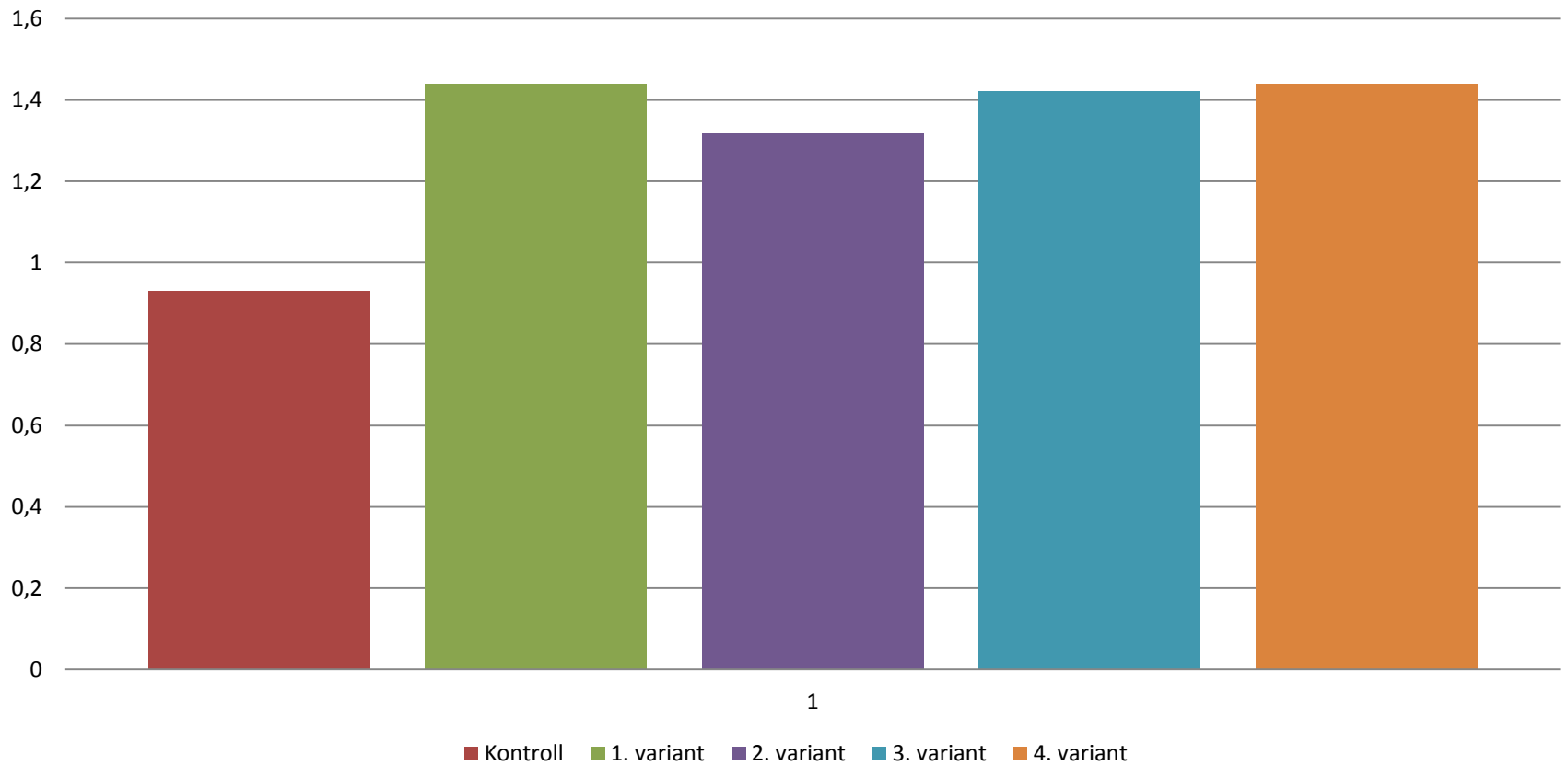
Külv:12.09.16	Külvisenorm	Seemnete puhtimine	Preparaat pritsitake mullale	Äestamine kevadel	Preparaat taimikule (BBCH 27)	Putukatörje
Kontroll (0)	500 id./m ²	Bactoforce 1l/ha	Bactoforce, 1l/ha Fosfix, 1/ha Fosfix 1l/ha Fosfix 1/ha		Azofix 1l/ha Fosfix 1l/ha	NeemAzal 3l/ha
1 variant						
2 variant						
3 variant						
4 variant						
<u>Tööde teostamine</u>		12.09.2016	13.09.2016	11.04.2017	12.05.2017	25.05.2017

Saagikus t/ha

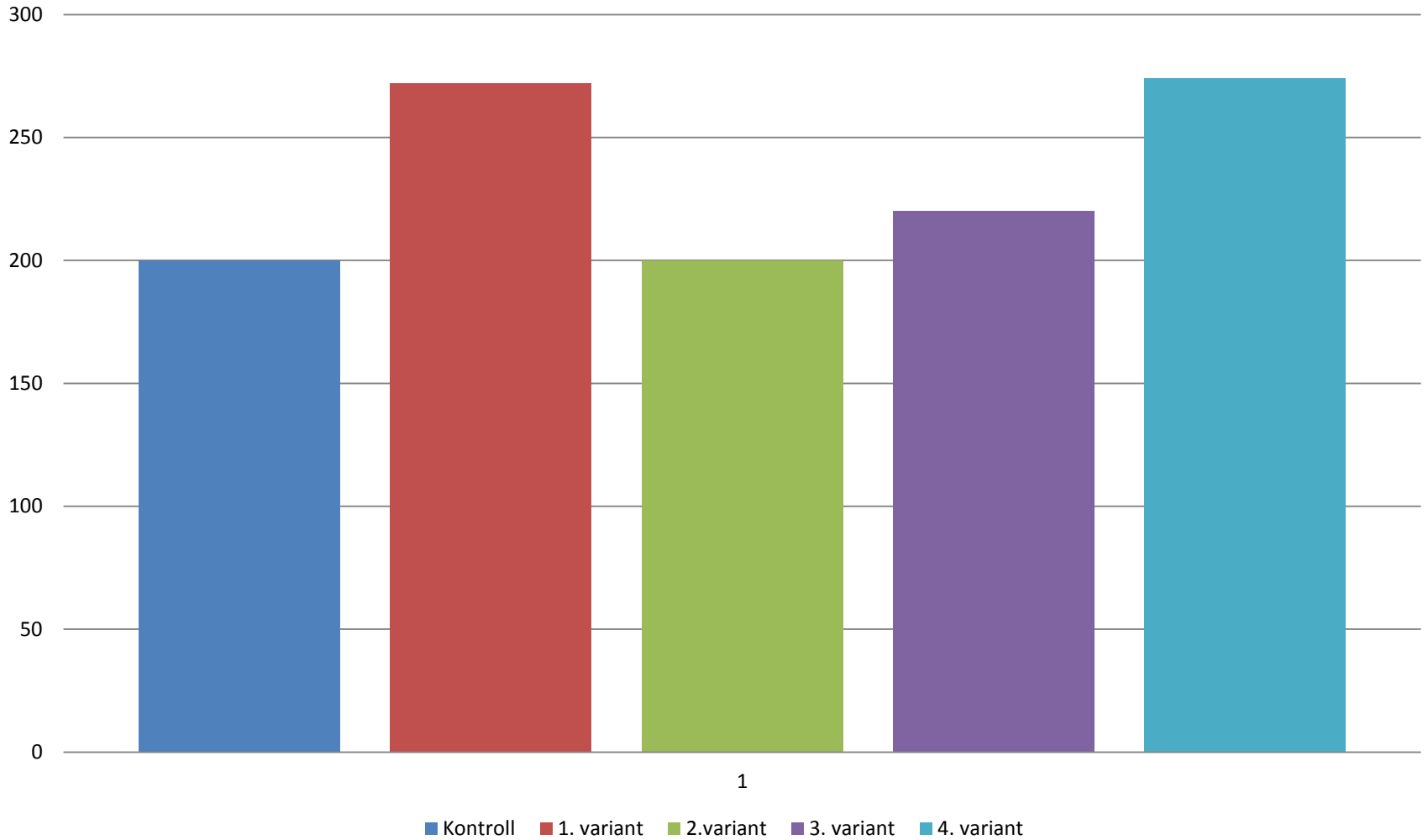
■ Kontroll ■ 1. variant ■ 2. variant ■ 3. variang ■ 4. variant



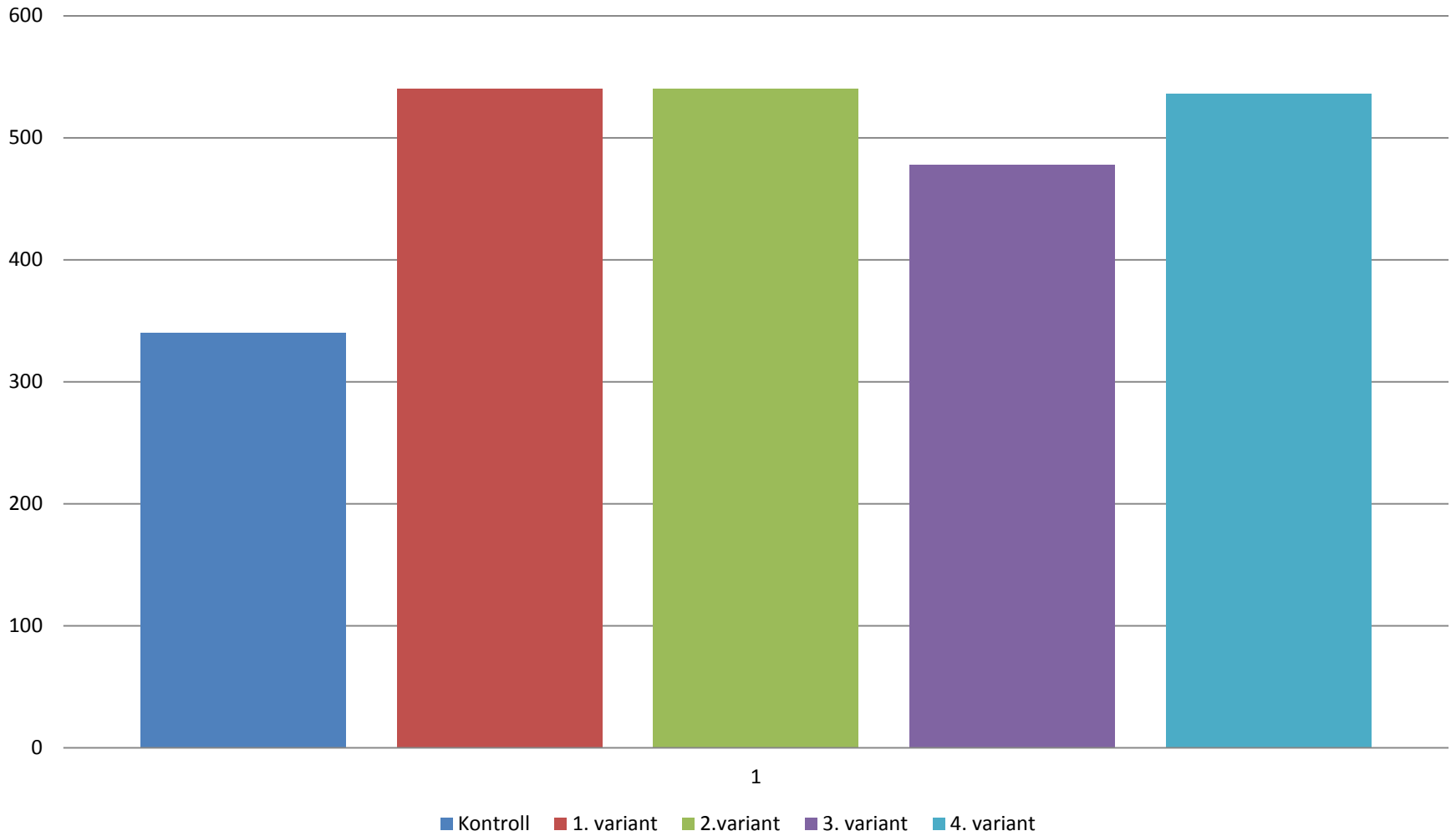
Vihu mass koos juurtega (kg/m²)



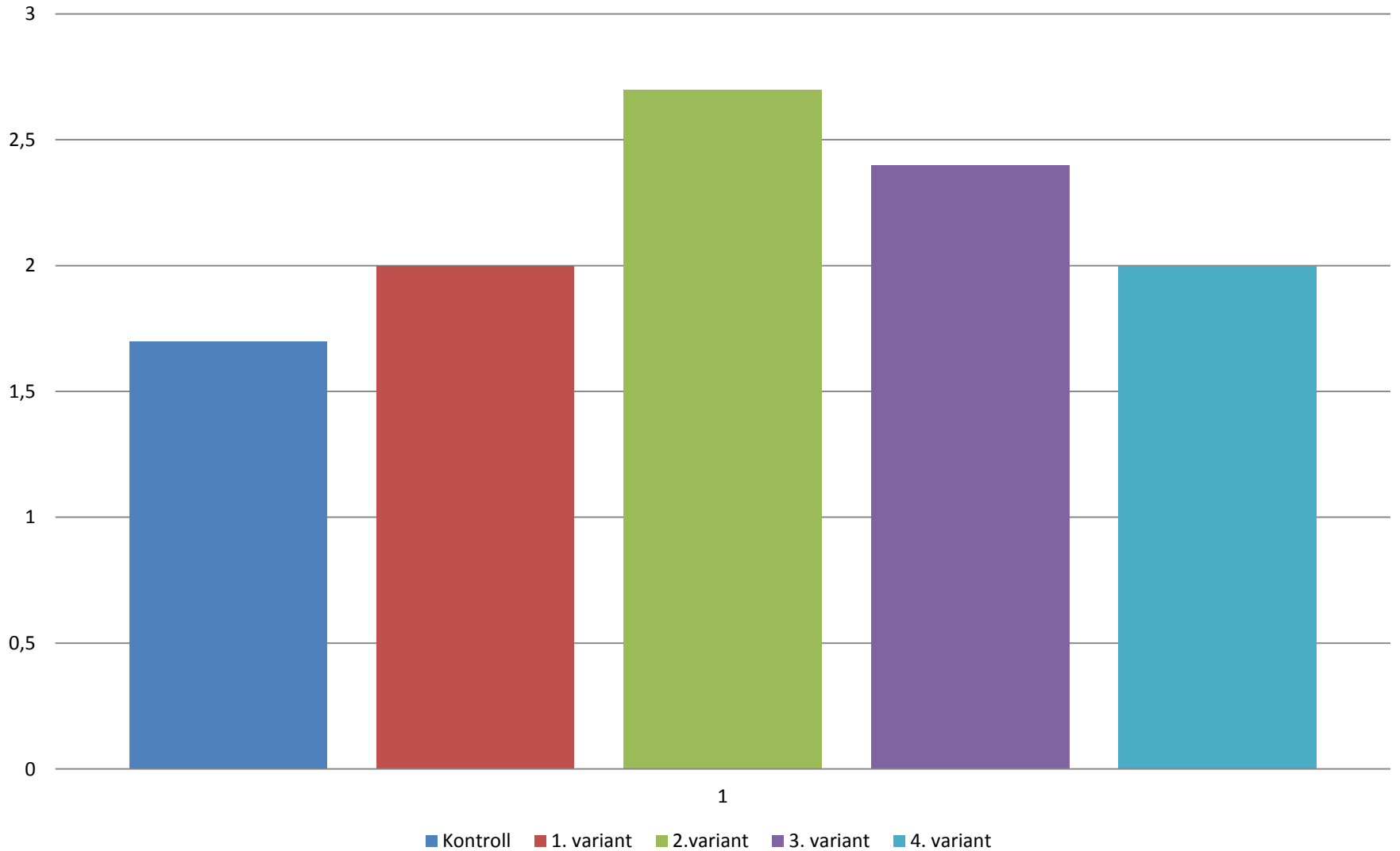
Taimede arv /m2



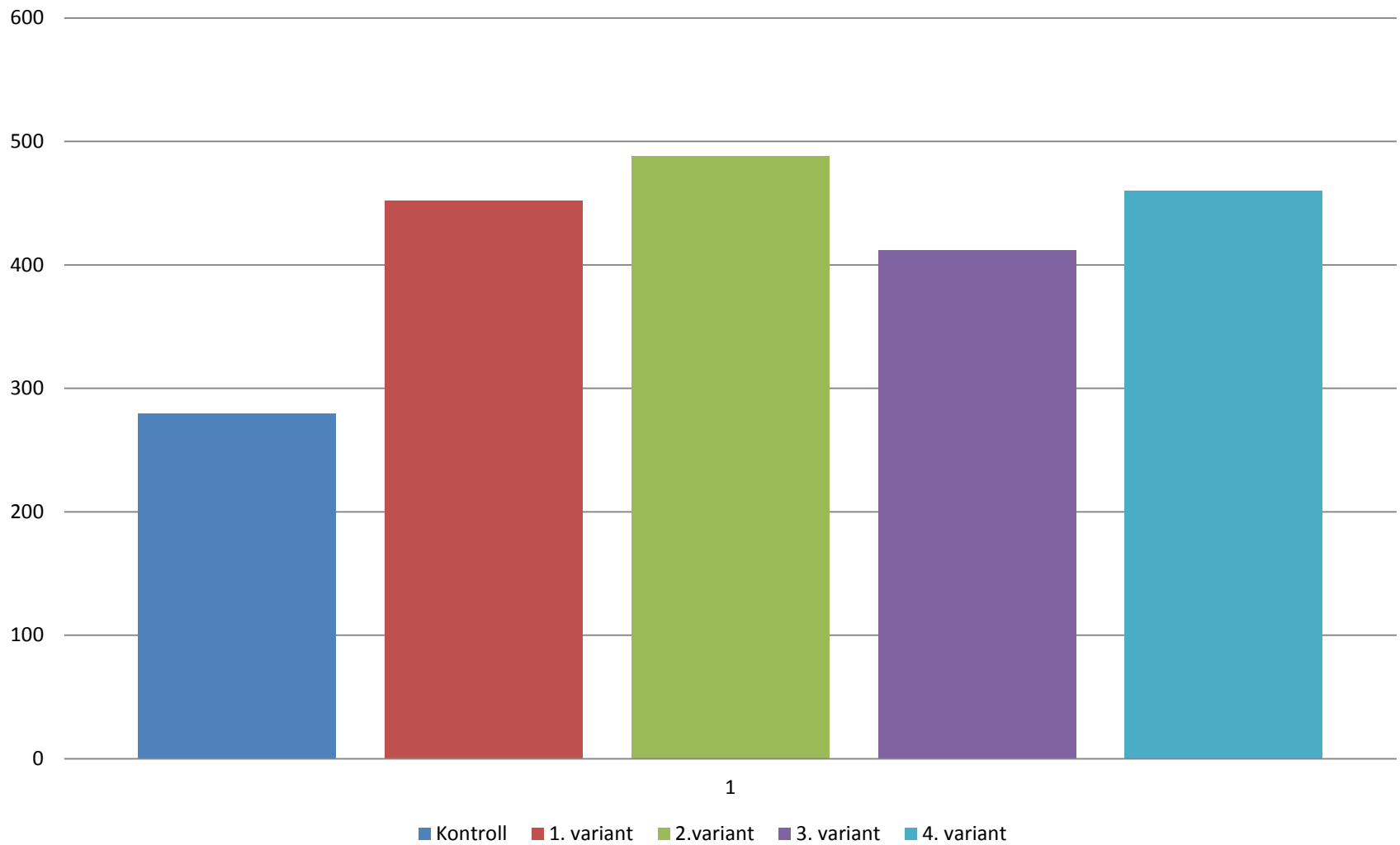
Üldine võrsumine /m²



Võrseid taime kohta



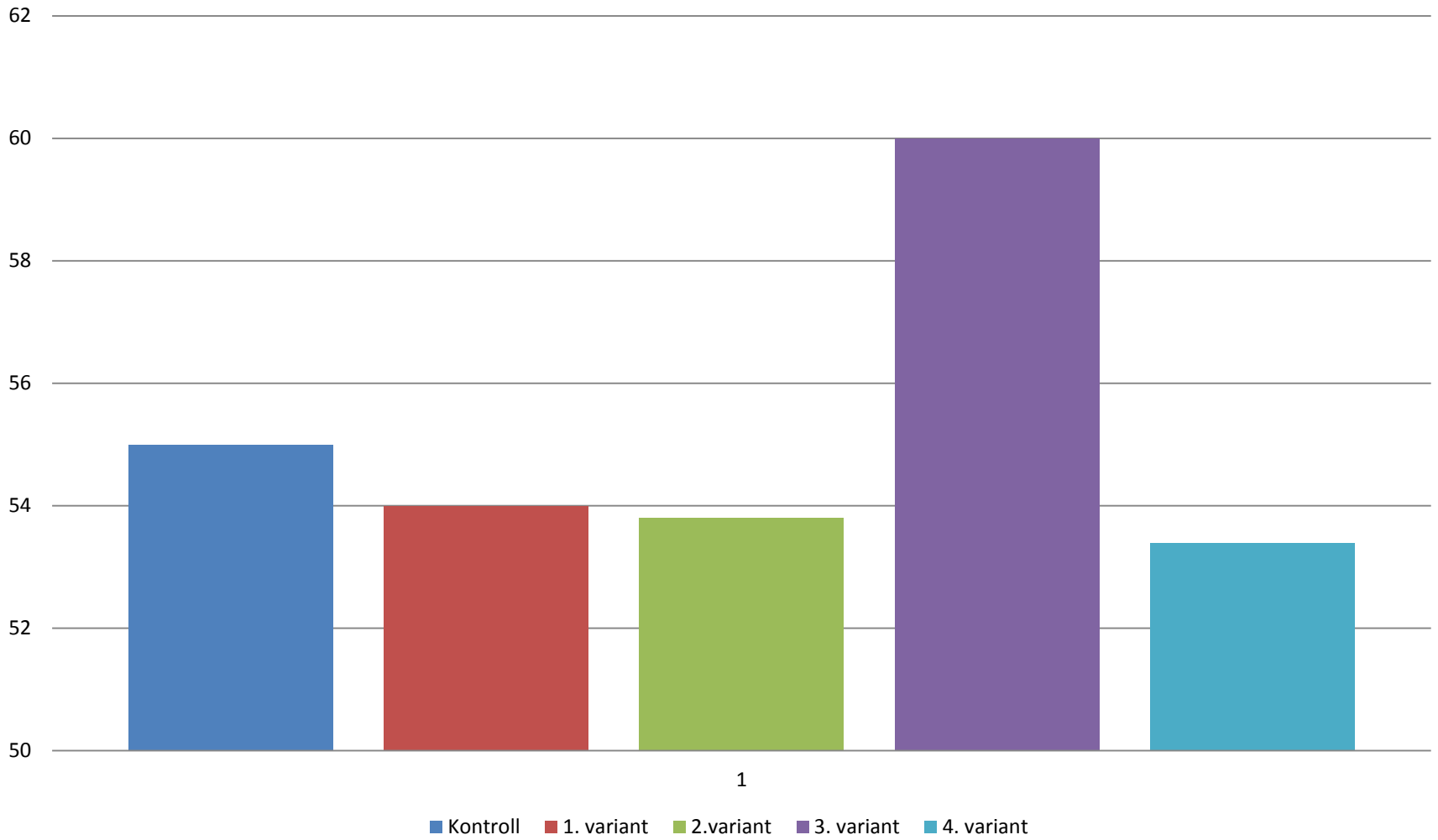
Produktiv vörsumine m2







1000 tera mass g



AZOFIX[®]

Accumulate nitrogen

FOSFIX[®]

For optimal phosphorus uptake

BACTOFORCE[®]

Bactoforce Healthy Soil = Healthy Plants

RUINEX[®]

Better mineralization



MAX PROLIN

MAXPROLINI kasutamine talirapsil

Katse läbiviidud Tehnoloogija ja Loodusteaduste
Ülikoolis Bydgoszcz-s.

Sort; Monolit

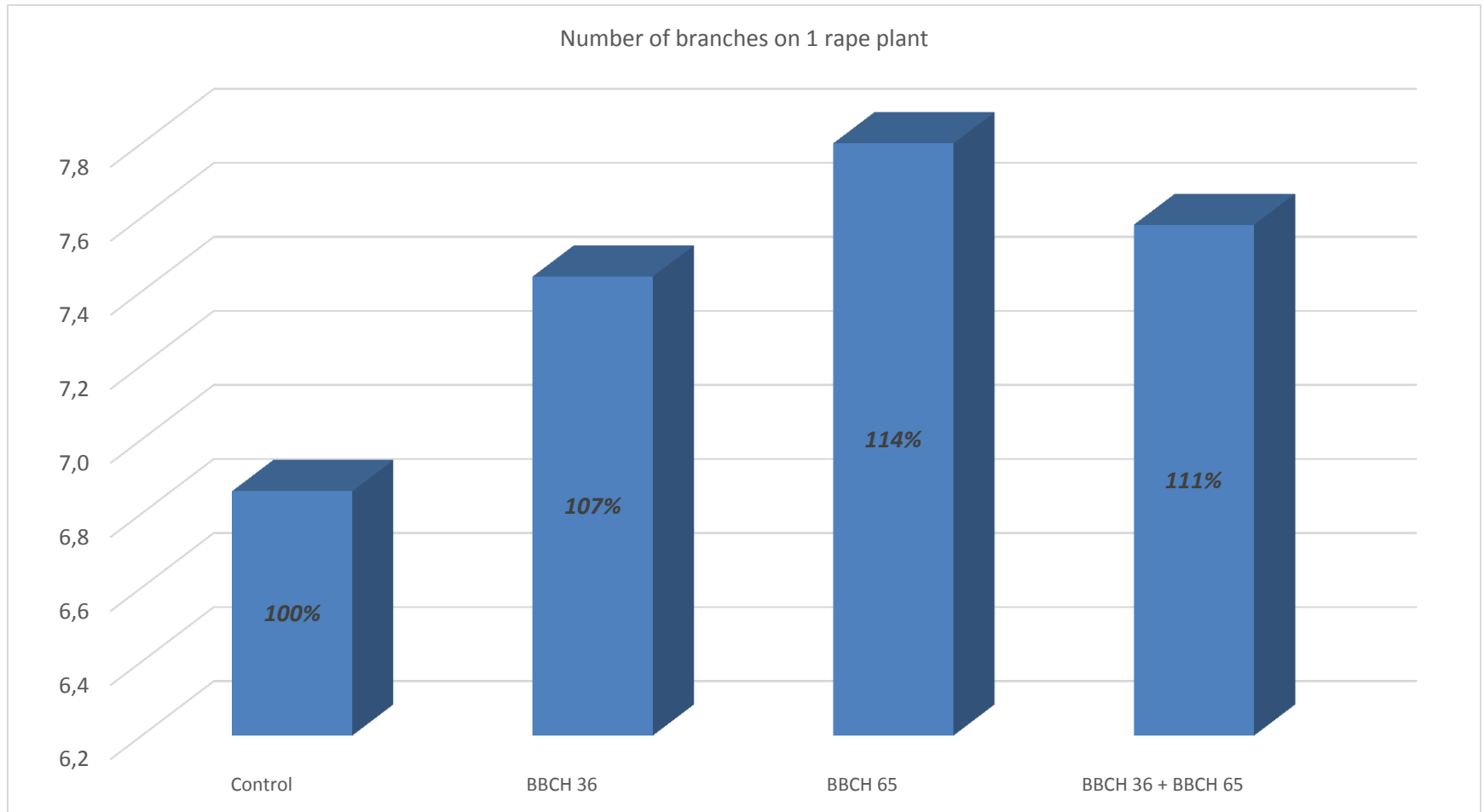
N – 34 kg/ha; P - 80 kg/ha; K – 70 kg/ha sügisel

N – 100 kg/ha kevadel.

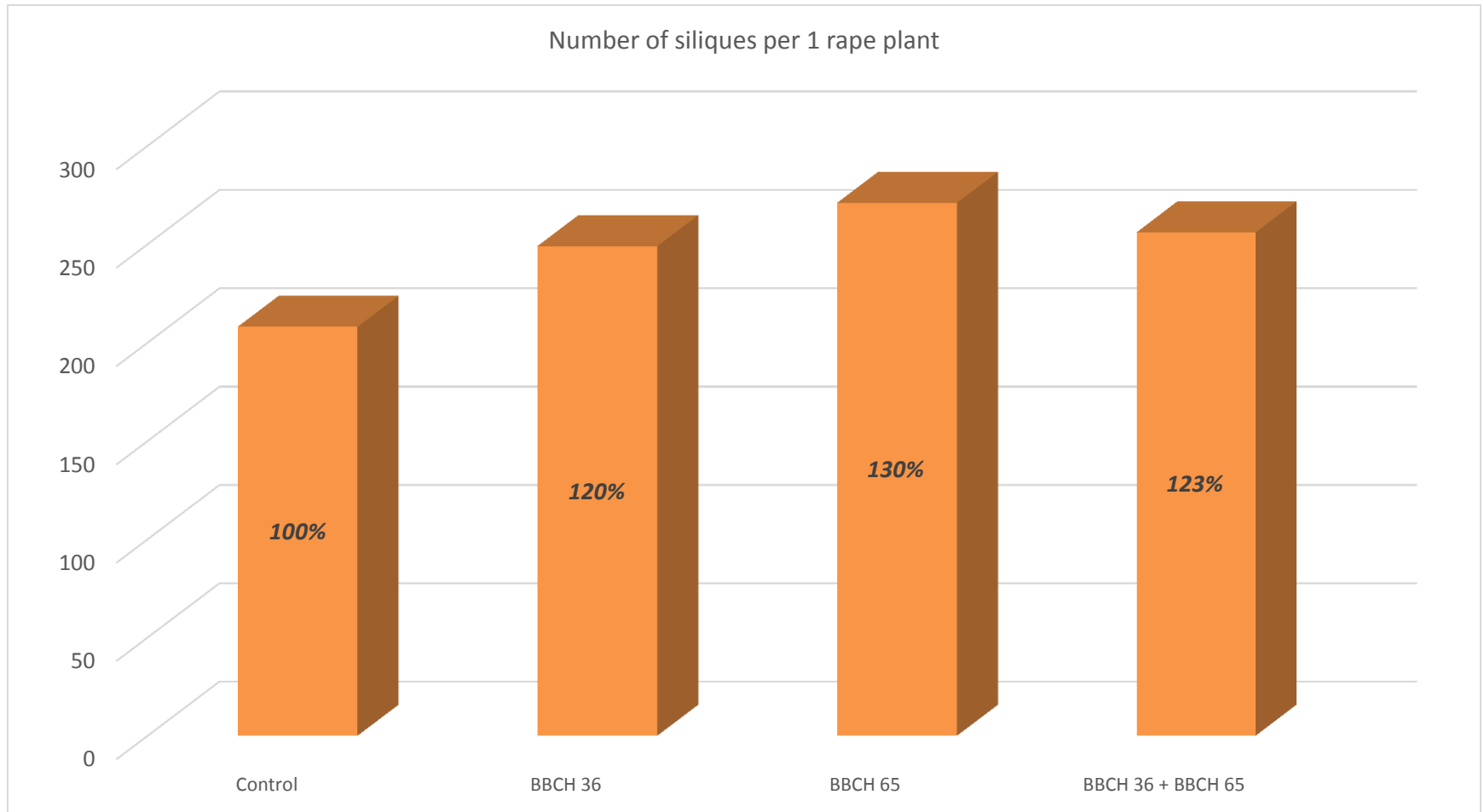
4,4 t/ha kontroll

4,8 kuni 5,0 t/ha

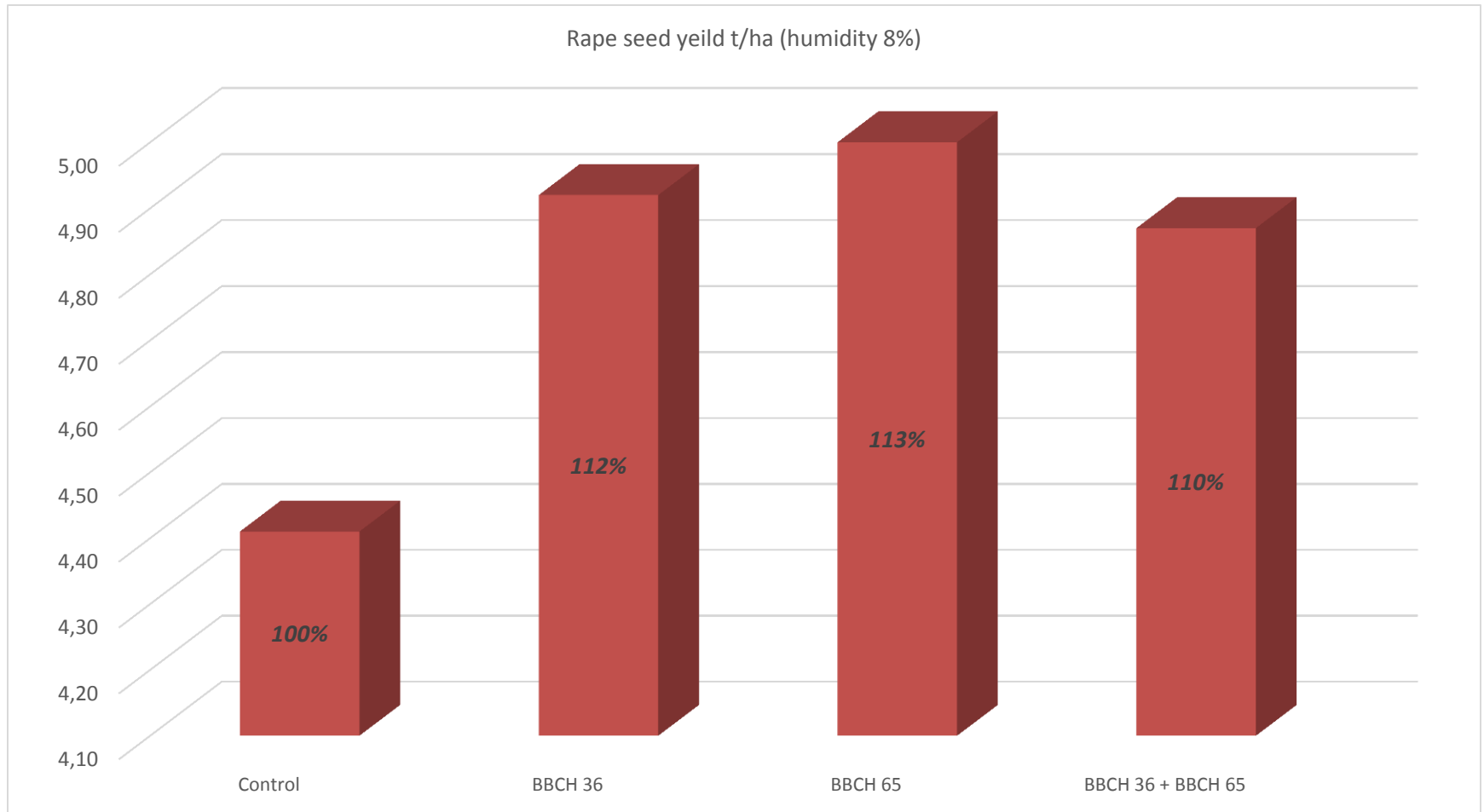
Külgvõrsete arv taimel



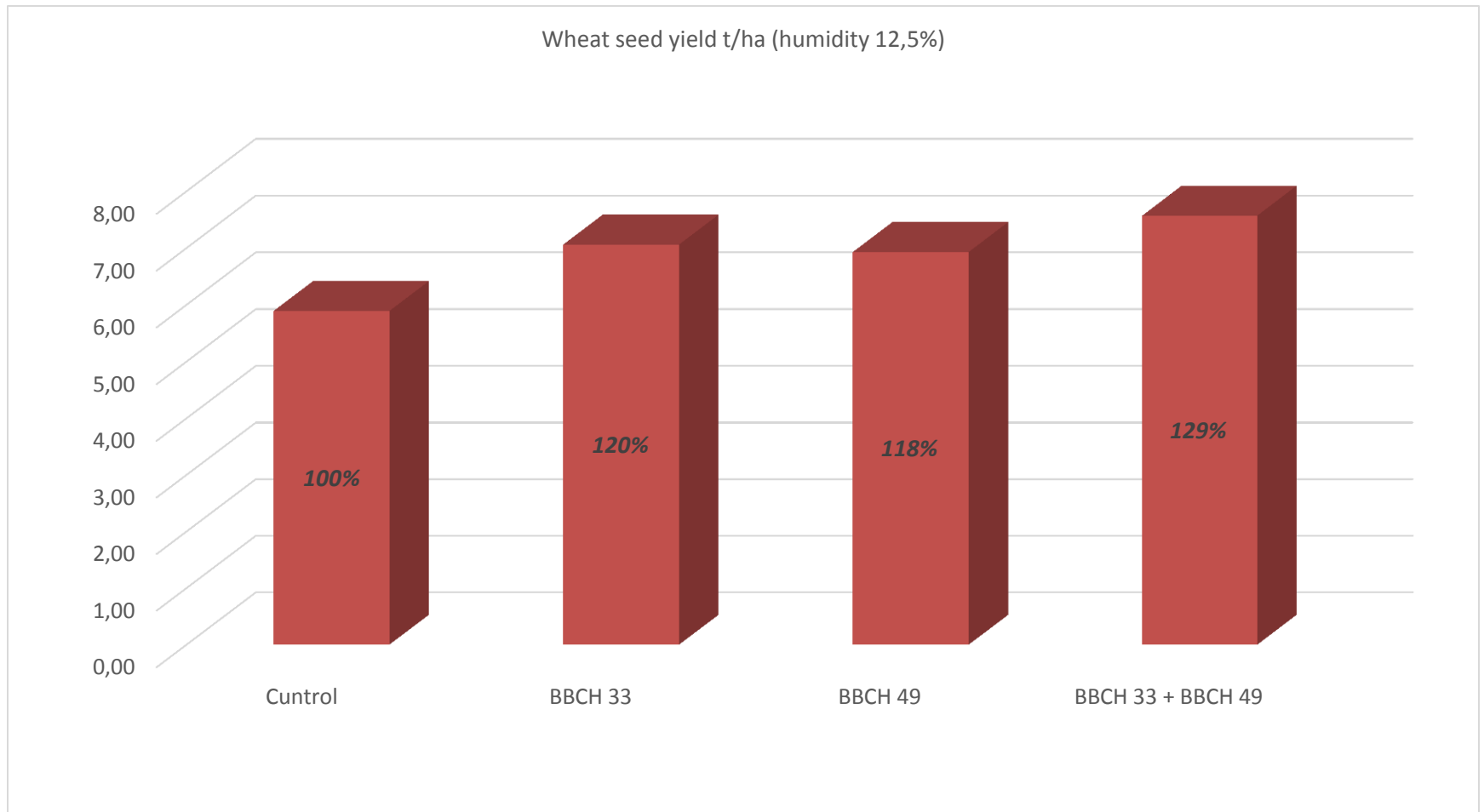
Kõtrade arv taime kohta



Rapsi saak t/ha (niiskus 8%)



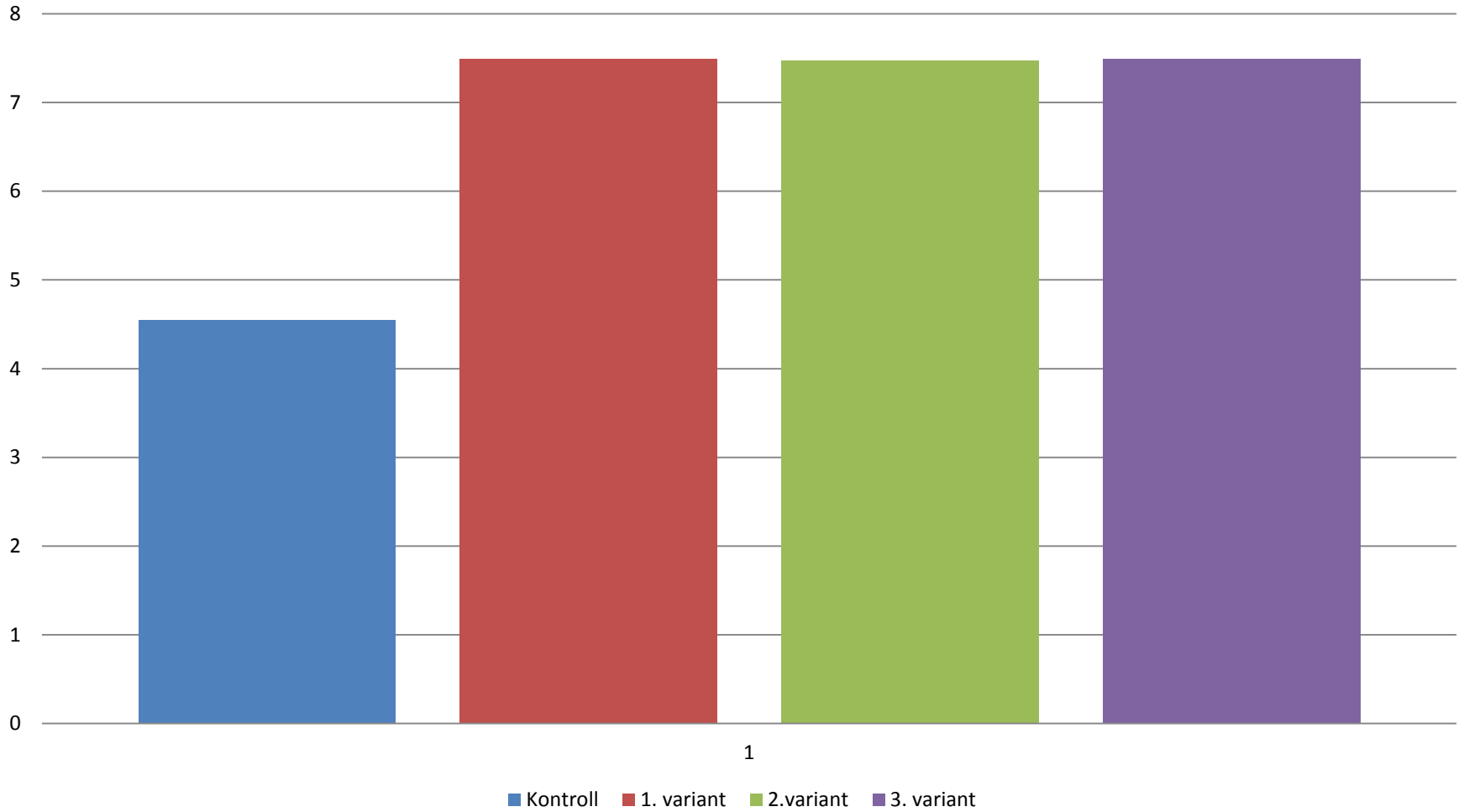
Talinisu saak MAXPROLINI kasutamisel



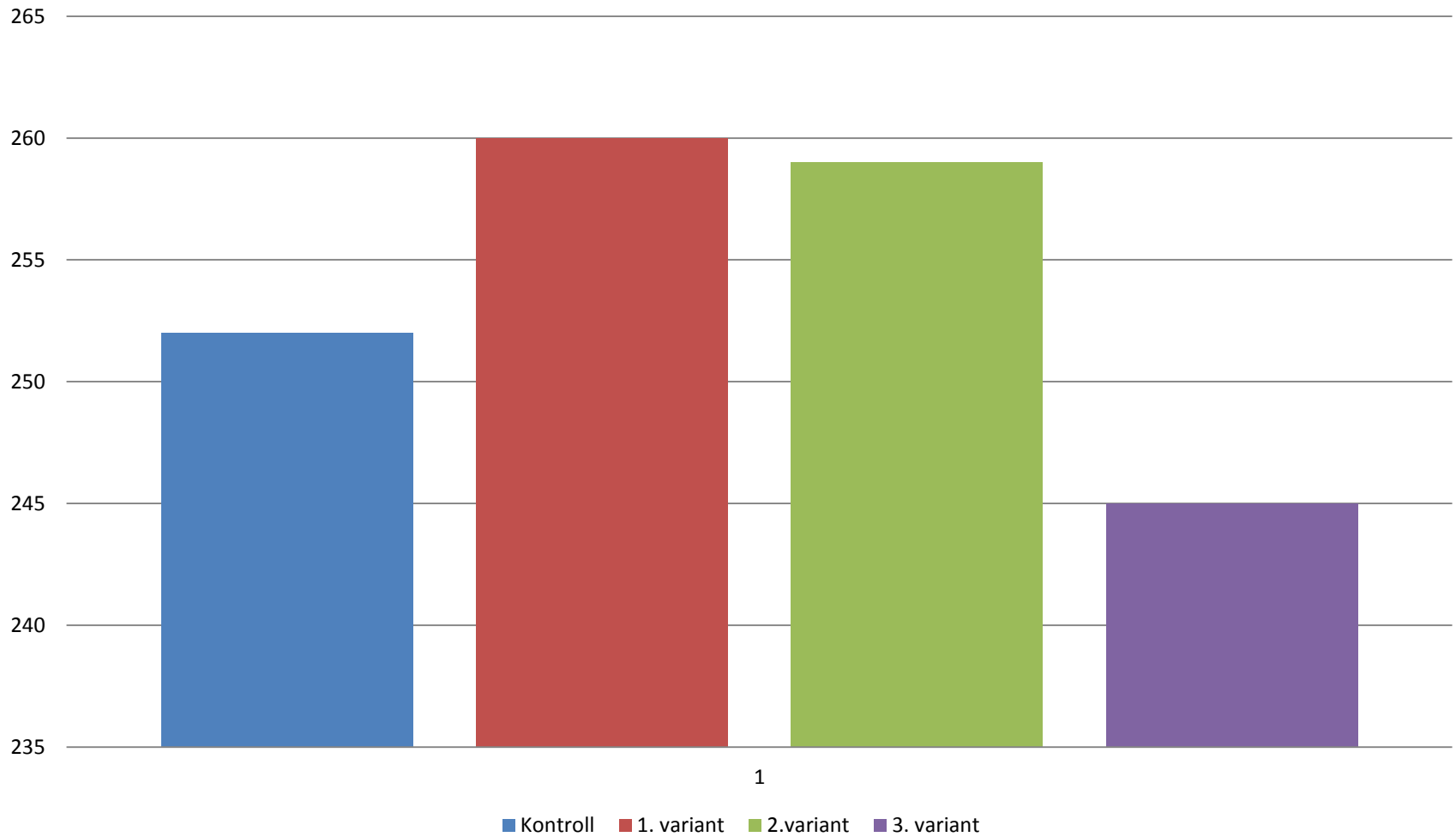
Kanasõnniku graanulite kasutamise katse suvinisul, Lāti 2017

Izmēģinājuma varianti			
Variants	Pamatmēslojums 28.04.2017.	1. papildmēslojums 23.05.2017.	2. papildmēslojums 20.06.2017.
1	---	---	---
2	$N_6P_{18}K_{34}$ 200 kg ha ⁻¹	Amonija nitrāts $N_{34,4}$, N 80 kg ha ⁻¹	Amonija sulfāts $N_{21}S_{24}$ N 50 kg ha ⁻¹
3	EGG granulas 500 kg ha ⁻¹ + $N_6P_{18}K_{34}$ 100 kg ha ⁻¹	Amonija nitrāts $N_{34,4}$, N 71 kg ha ⁻¹	Amonija sulfāts $N_{21}S_{24}$ N 50 kg ha ⁻¹
4	EGG granulas 1000 kg ha ⁻¹	Amonija nitrāts $N_{34,4}$, N 62 kg ha ⁻¹	Amonija sulfāts $N_{21}S_{24}$ N 50 kg ha ⁻¹

Suvinisu saak t/ha



Taimede arv/m2



SOIL

=



BaltChem OÜ

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