

APPLICATION PROCESS

Sugar beet

Ecological requirements

Sugar beets

- Grown in moderate to cold climates, mostly continental climate
- Grown in Euro- Asian continent
- In continental areas, the sugar beet is sown in early Spring (April) and collected in the Autumn (October)

California

- Sugar beets is a winter crop
- Sown in Autumn and harvest in Spring
- Growing period 100- 130 days
- Large roots, up to 3 kg, 15- 20% Sugar

The application process of Herbagreen

The picture below displays the sugar beet after germination. The young plants start to develop its first leaves (3- 5).

- At this stage of development, the first treatment of Herbagreen should be applied.



The application process of Herbagreen

The picture below shows that the sugar beet is more developed, it has reached a height of 30 cm and it has grown 8- 10 leaves.

- At this stage a second treatment of Herbagreen should be applied.



Cultivation of sugar beet

- In the continental climate sowing should occur in March- April.
- Select the appropriate varieties, quality seeds and optimal fertilizer manure and mineral fertilizers.
- If the sugar beet has been treated with Herbagreen, 4-5 times, the mineral fertilizer should be reduced by 50%.

Young Sugar beet plants with 5- 8 cm leaves



The two leaves from the left were treated with Herbagreen. The two leaves to the right were not treated with Herbagreen.

Treated with Herbagreen

- 10 days after treatment
- Plants are healthy, vital, non- marking virosis or other diseases, no damage by pests.
- Plants are dark green, thus indicating the increase in photosynthesis and chlorophyll intensive creation.



Not treated with Herbagreen

- The plants that were not treated with Herbagreen were partly destroyed, stopped developing, leaves were pale green and damaged by pests.



Results of using Herbagreen

- Cultivation of the sugar beet requires much work.
- The main issue is the protection of the plants. The plant often suffers from nematodes.

Results of using Herbagreen

- The plant became stronger, resistant and immune to diseases and pest attacks.
- The plant also showed a stronger resistance towards drought, hail, frost, low and high temperatures, excessive moisture, occasional flooding and other negative conditions.

World production of sugar beet

- World production grown on 7 million hectares
- Annual production 242 million tons
- Majority grown in continental Europe and USA
- Largest producers are France, 13% or 29 million tons.
Followed by Germany, USA, Russia, Ukraine, Turkey and Poland *.
- The by- products of the Sugar beet, Molasses, beet pulp and leaves can be used as nutritious feed for livestock.

1. Experiment in France

- First country to apply Herbagreen
- The sugar beet sown in ranks, spacing of 45 cm.
- Soil preparation, fertilization and planting were conducted in the usual terms and conditions.
- Only one treatment of Herbagreen was applied to the young plants with 4- 6 leaves.
- After first treatment: difference in colour appearance, shape and size of young leaves.
- The treated plants were more tailored and formatted correctly in comparison to the non-treated plants.

1a. Experiment in France

- By applying Herbagreen once the sugar beet's yield has increased by 7% and sugar yields of 8%.
- Indicated a intensive growth
- The plant has darker green leaves, thus an increase in photosynthesis and formation of chlorophyll.

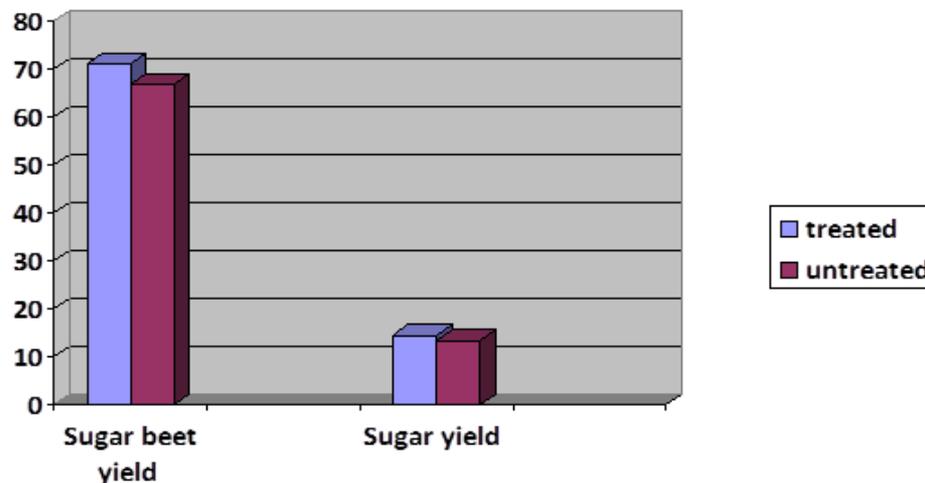
Description	Treated area	Control	Difference (%)
Sugar beet yield (t/ha)	71.1	66.7	7
Sugar content (%)	20.3	20.1	-
Sugar yield (t/ha)	14.44	13.40	8

1b. Experiment in France

- The graph displays the yield of the sugar beet and sugar with only one application with Herbagreen.

- Result**

By only using one treatment of Herbagreen, the plants developed faster and there was a greater production of sugar beet and sugar.



2. Trial in Karanac, Baranja

- Herbagreen treatment was applied in 2006
- 11 hectares for sowing sugar beet, specie Strube Dieckman- Buda
- The sowing was carried out in late March
- 50cm between the rows, 2,5 cm depth.
- 120 000 plants per hectare
- Plants were treated 3 times; in the cotyledon stage with first two leaves and with the first four leaves.
- 10 acres treated with Herbagreen and 1 hectare untreated (control)

2a. Trial in Karanac, Baranja

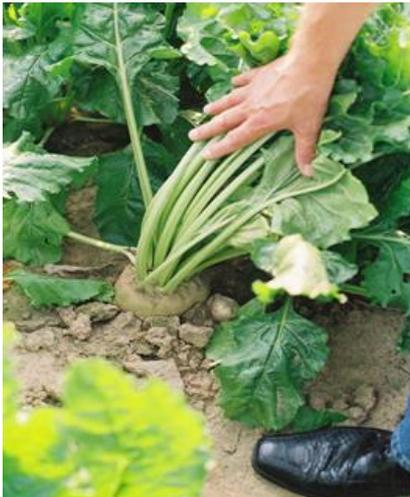
- The first treatment applied on the first 6 leaves, May the 15th.
- Two weeks after the treatment, the plants were severely damaged due to a heavy hailstorms.
- 10 days after the storm, a second treatment was applied. June the 15th
- A few days after the second treatment, the plants started to recover, new leaves appeared more intense and developed and had a dark green colour.
- The third treatment occurred on June the 28th.

2b. Trial in Karanac, Baranja

- 2 kg Herbagreen per hectare was applied for each treatment.
- After the 3rd and 4th treatment, the plants grew larger and were more pronounced in comparison to the untreated plants.
- The treated plants had fully recovered and the untreated plants had not recovered after the hailstorm.
- It was necessary to use fungicide treatment, preventive treatment on the 11 ha.
- The treated plants only needed 2 fungicide treatment, while the untreated plants needed 3 fungicide treatments.
- The untreated plants were intensively attacked by various pests.

3. Trial in Germany

- Municipality Wachtberg, Rhine
- Trial on sugar beet 2008.
- 0,5 ha
- One application on the first 10- 12 leaves.



The photos display an overall development of the plants, leaves and roots. The treated plants had larger roots and were formatted correctly.

Conclusion

- Herbagreen intensified photosynthesis and enhances the primary and secondary metabolism and other physiological processes in the plant;
- Herbagreen beneficial effect on plant growth and development so that the plant matures earlier and earlier bear fruit and seeds;
- Herbagreen significantly increases the yield of all crops. When sugar beet yield can be increased up to 30%, sometimes more. Increasing the yield depends on the intensity and the correct application of herbagreena (3-5 spraying with a solution of 0.5%);

Conclusion

- Herbagreen increases the sugar content in sugar beet (2.0-3.5%);
- Herbagreen reduces the need for mineral fertilizer;
- Herbagreen significantly reduces the need for protection and great use of chemical products;
- In all cases when herbagreen used regularly and correctly, the need for protection products reduced by 50% and sometimes chemical protection is not required.

From the trials, herbagreen is proven to be a very efficient natural powder which is of great use in organic agriculture.