



WATER-RETAINING GRANULES (HYDROGELS)

Save up to
50%
water



FROM DRY FIELDS TO GREEN YIELD

FOR EVERY GREEN SPACE. IN EVERY ENVIRONMENT.







INNOVATION GROWS OUT OF RESPONSIBILITY

At Green Legacy, we combine innovation with a strong commitment to protecting our environment. Our goal is to develop agricultural technologies that increase the productivity and efficiency of agricultural and forestry land while conserving natural resources.

Our products are scientifically validated, field-tested, and represent Austrian quality that integrates seamlessly into existing cultivation and management strategies.

OUR MISSION

We are dedicated to shaping the future of plant cultivation sustainably—with innovative soil improvers that store moisture exactly where it is needed. In doing so, we contribute to healthy soils, stable yields, and resilient vegetation systems – in agriculture, forestry, and urban green spaces.

Our commitment is rooted in sustainability, research, and the ambition to make the world more livable for future generations.

www.greenlegacy.at

WITHOUT GRANULES



WITH GRANULES



SUPERABSORBENTS – HIGH-TECH FOR HEALTHY SOILS

SMALL GRANULES – BIG IMPACT

Our water-retaining granules are based on biodegradable superabsorbents – special polymers capable of absorbing many times their own weight in water.

When the dry granules comes into contact with moisture, it swells into a hydrogel and acts as a water reservoir directly in the root zone. This ensures that plants have sufficient water and nutrients available even during dry periods – exactly when they need it most.

Our products improve soil structure, promote microbial activity, and support more sustainable land management – in agriculture, forestry, and horticulture.

They can be easily incorporated into planting holes, seed furrows, or existing stands – manually or mechanically – and take effect from the very first rainfall.

PRACTICAL TO USE, POWERFUL IN PERFORMANCE.

PREVENTS DROUGHT STRESS

Stores multiple times its own weight in water and nutrients and delivers them directly to the root zone.

FASTER AND HIGHER YIELDS

Supports vigorous, uniform growth even during dry phases and reduces plant losses – from young seedlings to fully developed crops.

LONG-LASTING EFFECT

Effective for 3–5 years depending on soil and microclimate, and then fully biodegradable.

IMPROVED SOIL STRUCTURE

Loosens soil structure, enhances porosity, and promotes microorganisms for healthy, living soils.



JUST PLACE INTO THE PLANTING HOLE



EFFECTIVE FOR 3 TO 5 YEARS



SAVE UP TO 50% WATER

THREE SOLUTIONS – ONE GOAL: STORE WATER, STRENGTHEN PLANTS

Polygrain

WITH STARTER FERTILIZER – IDEAL FOR YOUNG PLANTS

Polygrain combines cellulose (58%), superabsorbent polymers (40%), and starter fertilizer (2%) into an all-in-one solution that stores water, supplies nutrients, and promotes soil activity.

- Up to 200x water retention
- With starter fertilizer for a vigorous start
- Supports microorganisms through cellulose decomposition
- PEFC-certified – cellulose from sustainable forestry
- Approved for food production (§ 9a DMG 1994)



Polygrain Tab 5

COMPACT – FOR MANUAL PLANTING

Polygrain in a compact 5-gram tablet form – developed for manual planting and hard-to-reach areas. Each tablet contains the exact amount of granules needed, ensuring clean and easy dosing.

- Same composition and effect as Polygrain
- Simple dosing without measuring or handling loose material
- PEFC-certified – cellulose from sustainable forestry
- Approved for food production (§ 9a DMG 1994)

Polysorb

PURE SUPERABSORBENT – MAXIMUM CAPACITY

Ideal for reapplication or large-scale use where the water retention function is the sole priority.

- Over 300x water retention – highly concentrated performance
- Pure superabsorbent – without cellulose or fertilizer
- Improves soil structure and aeration
- CE-marked – certified EU quality
- Approved for food production (§ 9a DMG 1994)



APPLICATION & PRACTICE

Whether in forests, vineyards, urban green spaces, or agricultural fields – our water-retaining granules are used wherever plants suffer from drought stress and water is a precious resource.

Green Legacy combines easy application with measurable results – for healthy soils, strong roots, and sustainable growth across all sectors.



The exact application rate always depends on the plant species, planting hole size, and soil conditions. To ensure optimal performance of the granules, we determine the appropriate amount and the recommended method of incorporation together with you in a personal consultation.

EXAMPLE APPLICATION RATES:

For one hectare of cultivated land, the guideline amount is approx. 40 kg of Polysorb or Polygrain. For pots of around 2 liters in volume, one Polygrain Tab 5 is sufficient. More detailed guidelines can also be found on our website.



FOR EVERY CROP. FOR EVERY CLIMATE. FOR EVERY PLANTING METHOD.

FORESTRY VITICULTURE FRUIT GROWING LANDSCAPING AGRICULTURE TURF URBAN TREES

WATCH THE
PRACTICE VIDEOS



EASY TO APPLY. EFFECTIVE IN PRACTICE.

Application is simple – manually for individual plantings or mechanically for large areas. The key is proper placement below the surface in the root zone: This allows the granules to store many times their weight in water and release it as needed.

Important: The effect is activated by the first irrigation or the next rainfall. The material swells and forms a water reservoir directly at the roots – providing long-lasting moisture even during dry periods.



MECHANICAL APPLICATION

For larger plantings or extensive areas, the granules are applied mechanically – e.g., using spreaders, dosing systems, or mounted equipment. They are evenly distributed along the planting or seeding line and incorporated in the same work step.

This method is ideal for high area efficiency and streamlined workflows – for example in reforestation, arable farming, or landscaping.



MANUAL APPLICATION

Manual application is ideal for individual plantings, replantings, and hard-to-reach areas. The granules or the tablet are placed directly in the root zone – into the planting hole or planting furrow – and then lightly covered with soil.

This ensures that young plants have a continuous water supply right from the start.



REAPPLICATION (MANUAL & MECHANICAL)

Existing plantings can also be supported retroactively – ideal for strengthening during dry periods or after plant losses. The granules are introduced into the fine root zone, either via lance/spade or mechanically using slotted or injection systems.

This method revitalizes plants and sustainably improves water balance and root activity.



“We clearly notice that the soil retains moisture for longer. The vines grow more uniformly and show significantly more resilience during heat stress. In a wine-growing region like ours, that is a real advantage.”

Erich Scheiblhofer
Scheiblhofer Winery | Austria



SCHEIBLHOFFER

THE WINE



“In such a dry year, we would normally expect a mortality rate of 40% for sessile oak. With the addition of water-retaining granules, we only had a 7% failure rate this year.”

Markus Philipp, Head Forester
Stift Geras | Austria



Green Legacy supports the WWF project “Plantar Água” in Portugal with biodegradable water-retaining granules that promote the establishment of 80,000 native trees and increase the long-term climate resilience of reforestation efforts in the Serra do Caldeirão.



Madrid relies on sustainable plant care in “Parque del Retiro”: In cooperation with the municipal nursery Vivero Las Estufas, flower boxes are equipped with the granules. They ensure consistent moisture and reduce irrigation requirements – ideal for urban green spaces.



WATCH OUR
CUSTOMER VIDEOS



KNOWLEDGE CREATES IMPACT



FUNDING AGENCIES





TESTED. PROVEN. EFFECTIVE.

Sustainable innovation requires a solid scientific foundation. Green Legacy collaborates with leading universities and research institutions to continuously study, enhance, and further develop the effectiveness of our water-retaining granules.

In cooperation with the University of Natural Resources and Life Sciences Vienna (BOKU), Forschung Burgenland, the Austrian Federal Research Centre for Forests (BFW) and the HAWK Hildesheim/Holzminden/Göttingen, growth patterns, water-holding capacities, and biomass development are analyzed in different soil types. The studies show: our polymers improve soil aeration, root development, and water efficiency – supporting plant growth even under drought stress.

A practice-oriented field trial conducted by SGS Institut Fresenius demonstrated a potential reduction of irrigation water by up to 50% – without any loss in quality or yield.

Green Legacy is currently supported by the Austrian Research Promotion Agency (FFG) for applied research and development. These projects enable scientific validation of new formulations and help develop the next generation of water-retaining products – even more efficient, more sustainable, and better adapted to climate change.

At Green Legacy, innovation emerges from research – sound, practical, and delivering measurable impact for a climate-resilient future.

MEASURABLE RESULTS

Results from pot and field trials with Polygrain / Polysorb:

- 200× higher water retention in soil
- Significantly higher establishment rates of young plants
- More biomass (root + shoot) despite reduced irrigation
- Yield remains stable or increases – with up to 50% less water
- Fewer drought damages & more stable root systems

Scientifically validated by:

University of Natural Resources and Life Sciences Vienna (BOKU), Forschung Burgenland, Federal Research Centre for Forests (BFW), HAWK University of Applied Sciences and Arts Hildesheim / Holzminden / Göttingen, SGS Institut Fresenius.

[VIEW REPORTS](#)



OUR RESEARCH & VALIDATION PARTNERS





CONTACT
YOUR ADVISOR

PEOPLE WHO UNDERSTAND AGRICULTURE.

Our advice comes from real-world experience – not from a catalogue. We listen, ask the right questions, and find solutions that truly match your soil, your climate, and your crops.

At Green Legacy, our service doesn't end with the sale. We support you before, during, and after the application of our products – with hands-on experience in viticulture, forestry, and arable farming. Whether it's choosing the right product or practical application in the field: we are here to assist you, ensuring your plants get the most out of their water supply and site conditions.



REQUEST ONLINE
– NO OBLIGATION



ANY QUESTIONS?

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