



 **Polygrain**
by Green Legacy

WATER RETAINING GRANULES

ADDED VALUE FOR
YOUR FORESTRY



PEFC
PEFC/06-38-37

PEFC Certified

**ALL-IN-ONE SOLUTION:
CELLULOSE + SUPERABSORBENT
+ STARTER FERTILIZER**

YOUR ADVANTAGES AT A GLANCE

AVOIDS DRYING STRESS

POLYGRAIN is a superabsorbent capable of storing up to 200 times its weight in water, enabling the bridging of long dry periods.

SAVES WATER AND FERTILIZER

Water and fertilizers are used more efficiently, allowing savings of up to 50 % on irrigation water and fertilizers.

LONG-TERM EFFECT

POLYGRAIN consists of three components. The main component is plant cellulose, followed by a conventional superabsorbent. This combination ensures both short- and long-term effects (3 to 5 years). Additionally, POLYGRAIN contains a water-soluble starter fertilizer with NPK + Mg.

IMPROVES AND ACCELERATES GROWTH

POLYGRAIN promotes the healthy development of young plants and seedlings during early growth stages, especially during extended drought periods.

PRESERVES PLANT HEALTH

Supports the use of mycorrhizae and other beneficial microorganisms, reducing the need for plant protection agents.

FASTER AND HIGHER YIELDS

Promotes root growth and development of young plants, minimizing the risk of plant loss and increasing harvest yields.

IMPROVES SOIL STRUCTURE

Enhances soil porosity, aeration, and water infiltration, facilitating root growth and reducing water loss through surface runoff.

HIGHER MINERALIZATION RATES

Improves the mineralization rate of organic matter in the soil and the stability of soil aggregates.

ECOLOGICALLY RESPONSIBLE

It is safe, non-toxic, and does not harm the environment.

BIODEGRADABLE

Over time, POLYGRAIN undergoes a slow and complete degradation by soil microorganisms, leaving no harmful residues.

EASY TO APPLY

Simple to apply either manually or with machinery.





**FROM 10 GRAMS
PER PLANT**



**EFFECTIVE FOR
3 TO 5 YEARS**



**SAVE UP TO
50% WATER**



SIMPLE BUT EFFICIENT

POLYGRAIN is suitable as an additional water and nutrient reservoir for soil or substrate applications in the fields of ornamental plant cultivation, arable farming, vegetable, fruit, and viticulture, as well as landscaping, gardening, and forestry.

POLYGRAIN is always applied in the root zone of the plants and not on the soil surface. POLYGRAIN is sprinkled or introduced into the planting hole or planting furrow before planting.

POLYGRAIN can be used either as a dry granulate or as a hydrogel (pre-swollen POLYGRAIN).

Preparation of the Hydrogel

When using pre-swelled POLYGRAIN (hydrogel), no additional irrigation is required. However, this application method requires prior preparation of the hydrogel. To do this, mix the POLYGRAIN granules with water at a ratio of 1 to 100 (1 kg of POLYGRAIN for 100 liters of water). Slowly stir the granules into clean water while continuously mixing, and then allow them to fully swell. For maximum swelling, carry out this process the evening before the intended use.

APPLICATION METHODS

Planting of bare-root plants or container plants with smaller root balls

The planting hole is usually dug with a planting spade, hollow spade, or auger. After digging the planting hole, apply POLYGRAIN at the bottom of the hole and mix it lightly with the loose soil. After inserting the seedling, fill the hole with the soil material, gently firm it with your foot, and water thoroughly.

Planting of container plants with larger root balls

The hole is typically dug with a planting spade, dibber, or hollow spade. Ensure that the planting hole is at least 10 cm deeper than the height of the root ball. After digging, mix the backfill substrate or soil homogeneously with POLYGRAIN and place it both below and around the sides of the root ball in the planting hole, leaving a 5 cm thick top layer untreated. Then, firmly press down the planting area with your foot and water thoroughly.

Application in the planting
hole as POLYGRAIN granules



Application in the planting
hole as POLYGRAIN hydrogel



WITHOUT
POLYGRAIN

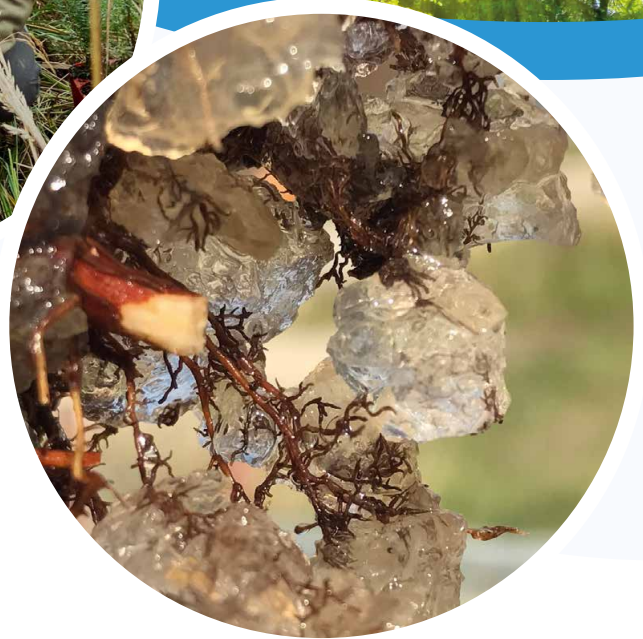
WITH
POLYGRAIN



APPLICATION QUANTITIES

Recommended application rates in forestry for Central and Eastern Europe

Planting method	Plants	Soil type	New plantings	
			Granulate	Hydrogel
Hole planting with an auger Planting hole: Ø 10 cm x 25 cm depth	Bare-root plants and container plants	Sandy and shallow soils	7 g / Tree on the bottom of the hole	700 ml at the bottom of the hole
		Humus-rich, loamy, and clayey soils	5 g / Tree on the bottom of the hole	500 ml/l at the bottom of the hole
Hole planting with an auger Planting hole: Ø 15 cm x 25 cm depth	Bare-root plants and container plants	Sandy and shallow soils	15 g / Tree in the backfill soil	1500 ml/l in the backfill soil
		Humus-rich, loamy, and clayey soils	10 g / Tree in the backfill soil	1000 ml/l in the backfill soil
Hole planting with an auger Planting hole: Ø 20 cm x 25 cm depth	Bare-root plants and container plants	Sandy and shallow soils	25 g / Plant in the backfill soil	2500 ml/l in the backfill soil
		Humus-rich, loamy, and clayey soils	19g / Plant in the backfill soil	1900 ml/l in the backfill soil
Hole planting with a hollow spade (dibber) (26 - 30 cm blade) Root ball diameter = 7 cm, additional excavation in width and depth: 30%	Only container plants from Lieco, Lescus, and Murauer (Ø = 7 cm)	Sandy and shallow soils	4 g / Plant in the backfill soil	400 ml/l in the backfill soil
		Humus-rich, loamy, and clayey soils	3 g / Plant in the backfill soil	300 ml/l in the backfill soil
Angle hole planting with a woodpecker hoe, oval blade Tool dimensions: 12.5 cm width x 22 cm length	Bare-root plant Plant dimensions: Ø 12 cm x 15 cm depth	Sandy and shallow soils	10 g / Plant at the bottom	1000 ml/l at the bottom
		Humus-rich, loamy, and clayey soils	6 g / Plant at the bottom	600 ml/l at the bottom
Machine planter in the forest nursery Nursery bed, planting distances in the row: 7-8 cm, Continuous application of granulate in the planting furrow with a micro granulate spreader	Bare-root transplanting 2:0	Sandy and shallow soils	40 g / Linear meter in the planting furrow	4.000 ml/l in the planting furrow
		Humus-rich, loamy, and clayey soils	30 g / Linear meter in the planting furrow	3.000 ml/l in the planting furrow
Machine planter in forestry Spot application of granulate directly at the plant with a micro granulate spreader	Bare-root plants 2:2 / 2:3	Sandy and shallow soils	15 g / Linear meter in the planting furrow	1.500 ml/l in the planting furrow
		Humus-rich, loamy, and clayey soils	10 g / Linear meter in the planting furrow	1.000 ml/l in the planting furrow
Production of container plants in the forest nursery; mixing the granulate with the planting substrate before transplanting	Bare-root / container transplanting 2:0	-	4 - 6 g / liters of substrate	-



ROOT FUSION WITH POLYGRAIN

The roots of the plant grow towards water and encounter the swollen granulate (hydrogel), attaching themselves to it with fine roots. When the plant-available soil water becomes scarce, the fine roots draw water and dissolved nutrients from the hydrogel.

Dry periods can thus be easily bridged for a period of four to six weeks.

JUST CONTACT OUR SPECIALIST ADVISOR:



Green Legacy GmbH

M: office@greenlegacy.at
T: +43 664 1480436