

HydroFilo

FREQUENTLY ASKED QUESTIONS

1. How does HydroFilo work?

HydroFilo releases its moisture in the soil through osmosis. Roots obtain moisture in the soil at a molecular level or by direct contact with the gel.

2. Are today's polymers better than those made 20 years ago?

Yes. Polymers technology has changed a great deal since their introduction 20 years ago. The polymers we use today are made with stronger chemical components which make them longer lasting, able to withstand higher levels of soil pressure and capable of absorbing larger quantities of water.

3. How long does HydroFilo last?

HydroFilo remains active in the soil for 5 years. In frequently tilled soils the biodegradation happens slightly faster. Extreme weather like desert heat and freezing temperatures will not affect the longevity of the product.

4. What eventually happens to HydroFilo; Is it safe for the environment?

HydroFilo will naturally biodegrade in the soil. However HydroFilo is not recommended for ingestion or inhalation and therefore it should be kept out of reach of children.

5. Can I use too much HydroFilo?

Yes. However too much HydroFilo can actually raise soils. For this reason be sure to follow the recommended application rates of the manufacturer.

6. Does HydroFilo cause root rot?

No if it is being applied at the correct application rate. HydroFilo improves actually soil aeration by making pockets in the soil. In cases of extreme rain, HydroFilo will only absorb to its maximum capacity.

7. How does HydroFilo work for different soil types?

HydroFilo is beneficial for all soil types. In sandy soils it absorbs and stores water and in clay soils it improves soil porosity. HydroFilo does not affect the soil's pH or microbiology. When selecting soils, be sure to invest in quality soils for maximum performance.

8. Do I need to reduce the amounts of fertilizer, pesticides and herbicides used when incorporating HydroFilo into the soil?

Yes. HydroFilo stores nutrients, fertilizers, insecticides and herbicides rather than losing them to deep soil percolation, runoff or evaporation. Due to varying soil types (sandy, clay or loam) you must adjust the application rate of HydroFilo to your soil conditions.

9. Does water quality affect HydroFilo's performance?

Yes. Minerals and salts in the water can decrease absorption rates. Water with high salt levels will require more product, as salt will significantly decrease the absorption capacity of HydroFilo.

10. Can HydroFilo be applied to established plants and lawns?

Yes. You must inject the crystals into the soil, near the root zone either by hand or with injection equipment. HydroFilo is more effective when applied during initial planting or transplanting.

11. Does HydroFilo have any effect on pests?

No. HydroFilo does not attract or repel pests.

12. Why buy HydroFilo instead of other similar products?

HydroFilo has an original spherical shape of crystal in contrast to all the unshaped shattered polymer crystals which offers HydroFilo the following benefits:

- Easy mixing
- Quick swelling
- Free flow
- Uniform shape
- Attractive appearance

- ◆ Increases the water holding capacity of the soil and as a consequence watering frequency is reduced by up to 50%.
- ◆ Improves the physical properties of the soil through good aeration which is achieved by the constant swelling and shrinking of the spherical particles of HydroFilo and as a result soil pores are increased.
- ◆ Enhances plant growth due to the optimal absorption of water and nutrients.
- ◆ Limits losses of water and nutrients due to leaching and evaporation from the soil and restricts the use of fertilizers.
- ◆ Protects the environment against drought and groundwater pollution.

*Reduces watering
frequency by up to 50%*

Produced by



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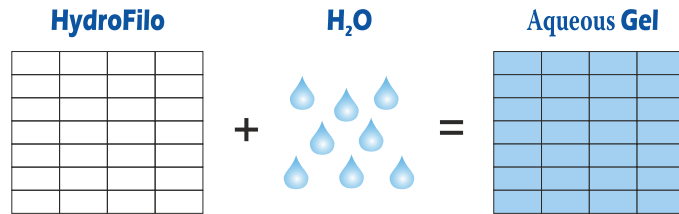
HydroFilo

Water soluble Powder for Water Retention
for all types of soil and substrate

All human activities require resources - among them water is certainly the most precious. Modern agriculture consumes almost 2/3 of the waters pumped worldwide. For this reason, more and more people are seeking ways to conserve it.

HydroFilo is a superabsorbent polymer formulated in water soluble powder which when applied and incorporated in the soil or in any substrate it absorbs and retains large amounts of water (up to 500 times its weight). **HydroFilo** can be applied efficiently to hanging baskets, ornamental gardens, lawn, flowerbeds, parks, trees, bushes and horticulture. It is beneficial throughout the growth cycle of the plants and especially in the areas of germination, growth enhancement and root establishment.

HydroFilo is the result of the chemical reaction of many copolymers of acrylamide and potassium acrylate and is being produced especially for the improvement of the water management by the plants. This environmentally safe product absorbs and stores water and nutrients by forming an aqueous gel by spherical particles which are capable of attributing the retained moisture and nutrients according to the needs of the plant.



The big advantage of **HydroFilo** is the capacity of the formed aqueous gel to release easily the absorbed water and nutrients through the mechanism of osmosis allowing plants to maintain a consistent, ideal moisture and nutrient balance near the root zone. This results in the reduction of the hydric stress which can delay plant growth.

Water soluble Powder for Water Retention

APPLICATION IN POTS

HydroFilo is used for the increase of the time that humidity remains in the pot that helps in the reduction of the watering frequency by up to 50%. Furthermore, **HydroFilo** reduces transplanting shock and the resultant growth check on newly planted plants in pots.

For established plants in pot:

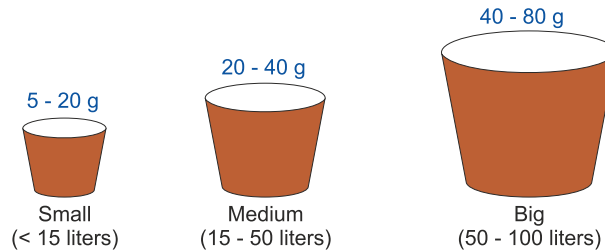
1. Open small holes or furrow around the main shoot or trunk in the middle of the distance between the trunk and the perimeter of the pot. The depth of the holes or of the furrow must be equal to the depth of the roots.



2. Apply the required amount of **HydroFilo** (according to the size of the pot) in the holes or in the furrow
3. Cover with soil and water thoroughly in order to activate the product.

For plants that are going to be established in a pot.

1. Mix the required amount of **HydroFilo** with the total amount of soil which is going to fill the pot.
2. Cover the pot with soil up to 2/3 and establish the plant.
3. Cover the plant with the rest of the treated soil and water thoroughly until the product is activated.



APPLICATION IN TURF

HydroFilo ensures good germination, quick rooting and also regular and even growth of the lawn throughout its life span. Furthermore, **HydroFilo** assists in the quick and successful establishment of the sod. For this reason it is widely used in landscaping for gardens, parks and courses.

1. Work, mix, break up and level the substrate in which the lawn is going to be established.
2. Spread evenly **HydroFilo** on the surface of the substrate with the hands or with a fertilizer distributor.
3. Incorporate **HydroFilo** in the substrate by hoeing or sowing in a 5-8 cm depth.
4. Seed the lawn and roll (compact) the soil or lay the sod.
5. Fertilize and water thoroughly as to activate the product.

Application rate: 10-20 g per s.m. For free draining sandy soils use a higher rate.



APPLICATION IN THE SOIL

When **HydroFilo** is mixed with soil it increases the water retention capacity and also prevents the nutrient leaching. Furthermore, it reduces the humidity losses due to evaporation and achieves a time elongation between waterings. In this way it reduces the stress which is caused by drought and saves valuable labor time and irrigation cost for the farmer. It is efficient in all types of soil and substrate for ornamental gardens, flowerbeds, parks, trees, bushes and horticulture.



The application rate of **HydroFilo** depends on the soil permeability. In any case it is necessary to ensure a good mixing and a full incorporation of **HydroFilo** in the soil (by hoeing or sowing) as well as activation of the product by watering thoroughly right after planting.

Small areas (small gardens, hanging baskets, flowerbeds etc)

	Depth* of incorporation (cm)				(g per s.m.)
	5	10	15	20	
Free draining soils	100	200	300	400	
Medium soils	50	100	150	200	
Water retention soils	10	20	30	40	

* Depth of normal root growth of the crop to be grown

Big areas (big gardens, bushes, trees, horticulture etc)



1. Apply **HydroFilo** in the planting row or in a small furrow around the root and in a range not bigger than the plant's shadow. The depth will be determined according to where the roots are or are expected to reach.

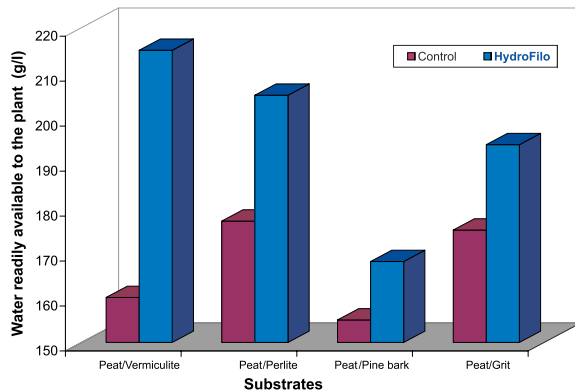
2. Spread 10-100 g **HydroFilo** per 100 m of the row according to the type of the soil, cover the furrow with the removed soil and water thoroughly in order to activate the product.

ROOT DIPPING

HydroFilo is easily transformed in an aqueous gel which can be used for the root dipping of plantlets and cuttings that are going to be transplanted. With this application the transplanting shock and the resultant growth check are reduced while the formation of new roots is enhanced.

1. Mix 10 g **HydroFilo** in 1.5-3 liters of water and let the solution to stand for 60 minutes.
2. Dip the bare roots of the plantlets and the cuttings in the formed aqueous gel and plant in the usual way.
3. Cover the root with soil and water.

Note: In the aqueous gel of the dipping some liquid or water soluble nematicide or/and fungicide can be added for plant protection from infections from nematodes and plant pathogens.



The chart illustrates the effect of **HydroFilo** in 4 different substrates in relation to the quantity of the readily absorbed by the plants water when **HydroFilo** was applied at an application rate 2 g per liter of substrate