

Revolutionizing Seed Germination and Plant Emergence for Climate Adaptability

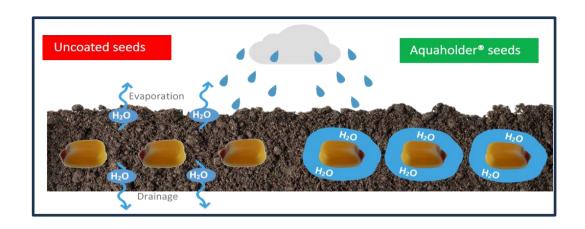


**Aquaholder** envisions a world where agriculture thrives despite climate challenges. Our mission is to provide innovative solutions that enhance plant adaptability, ensuring food security and sustainability for future generations.

#### **Transforming agriculture with global impact**

**Innovative superabsorbent seed applied technology** empowers plants to withstand drought conditions, minimizing crop losses and optimizing water usage.

**Scalable & Sustainable** - Aquaholder is not just a product, it's a movement towards resilient farming, ready to scale globally and drive long-term agricultural sustainability.





# THE CHALLENGES IN MODERN AGRICULTURE

## **Climate change**



Rising global temperatures, shifting weather patterns, and unpredictable rainfall are leading to a projected 30% reduction in crop yields by 2050.

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#### **Seed Viability**

Traditional methods of seed germination result in inefficiencies, with up to 20% of seeds failing to germinate in regions experiencing drought.



#### **Resource Scarcity**

By 2030, 40% of the global population may experience severe water shortages. Agriculture consumes 70% of global water resources, necessitating a radical shift in resource management.



# **SOLUTION – AQUAHOLDER BIOSAFE**

## Innovative superabsorbent seed applied technology

Aquaholder's microplastic-free superabsorbent polymers are safe for the environment and hold up to 500x their weight in water, creating a 24/7 water reservoir for seeds, especially during critical drought periods.

#### **Enhanced Water Retention**

Our hydrogel creates a protective layer around each seed, ensuring continuous access to water, resulting in up to 30% more efficient water use.

#### **Adaptation to Climate Variability**

Aquaholder mitigates the risks associated with climate variability, improving germination rates in drought-prone regions.

#### **Economic Benefits**

Farmers can expect up to 15% increase in crop yields. Improve AI uptake – lower production costs, lower environmental impact







#### **Farmer**

Aquaholder boosts higher productivity in the field by 10 - 15% (higher yield), allowing farmers to maintain profitability even during climate-induced water shortages.





Aquaholder can be used on **all major crops globally**, from wheat to maize, included **vegetables and grass seeds** incl. cover crops, ensuring wide market applicability and high scalability.

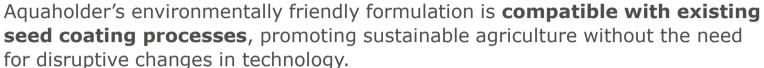
#### **Customers**



Contributes to global food security by making **agriculture more resilient to extreme weather conditions**, thereby supporting diverse diets and increasing food supply.



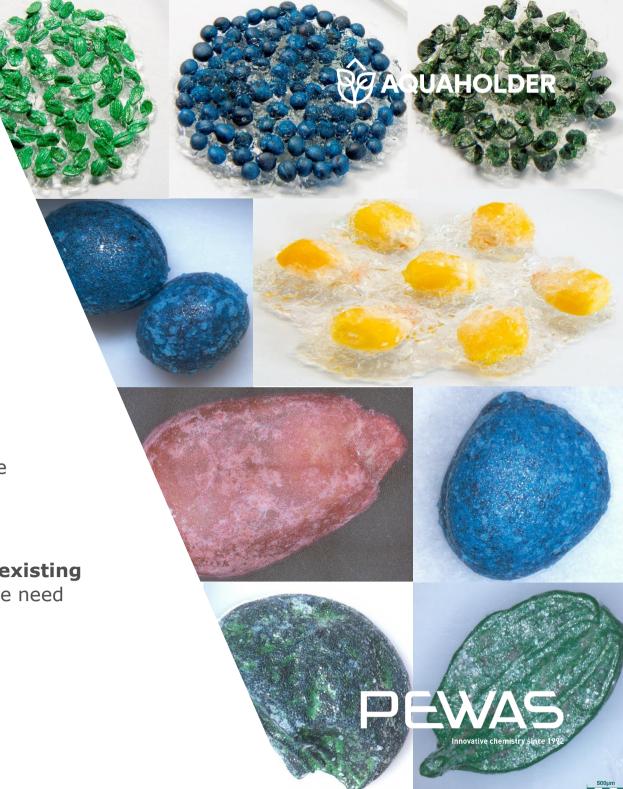
#### **Sustainability**





## Regulatory

Microplastic free solution, biodegradable and biobased, certified for agriculture use



# PROVEN IN LAB AND FIELD CONDITIONS

#### **FIELD TRIALS 2022**

Product validation in **all over** the world (EU, US, Asia, Africa) on 10 different crop types in **2021 - 2024** 

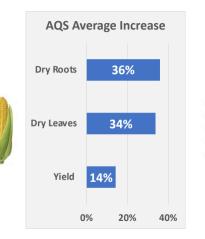
PATENT GRANTED PCT/SK2018/050015

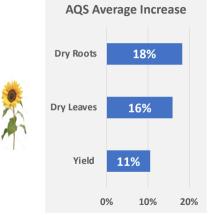
**PATENT PENDING** PCT/SK2024/000002

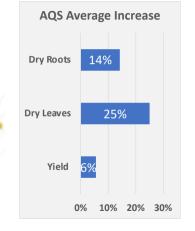
**Seal of Excellence** – Grant awarded

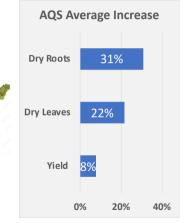


## **Product benefits proven by GEP certified agencies and customers**











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Do you have any questions? Please contact us at: <a href="mailto:info@pewas.sk">info@pewas.sk</a>

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