

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



SME Instrument
GRANT No. 807831

Disruptive technology addressing drought challenges in agriculture



Aquaholder® Seed

Based on the OECD report, it is estimated that 60% of the global population will face water issues and 60% more food will be required to feed 9.7 billion people by 2050. This represents a pressing pain point for the agricultural industry. Solutions need to be found that will not only increase yields to satisfy the growing demand for food, but do so in a way which improves water efficiency.

Solution

PEWAS company has developed a breakthrough seed coating technology Aquaholder® Seed applying super-absorbent polymers that can absorb up to 200-500 times more of water to their own weight and release it back to the seed roots in times of water scarcity.

As a result, the roots of the seeds coated with Aquaholder® Seed technology have more water available during the first, critical growth phase resulting in strong germination and vigor with potentially higher yields.

The solution is addressing main abiotic stress driven pain points simultaneously providing the real balance between efficiency and environmental care.

Ecosystem benefits

- Farmer**
Increased agricultural productivity
- Seed companies**
Globally available innovation
- Regulatory**
Simplicity
- Consumer**
Food Safety and Security
- Environment**
Protection and sustainability



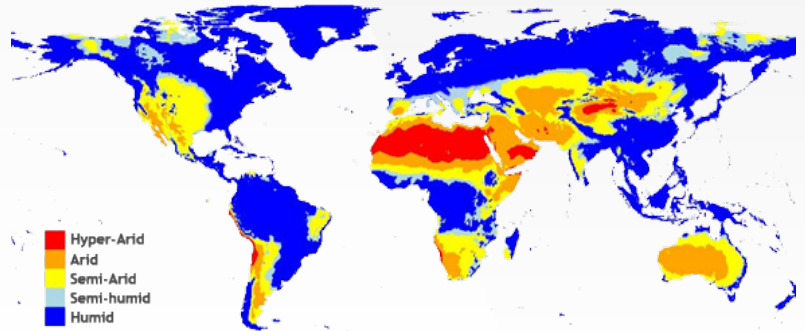


What is a superabsorbent?

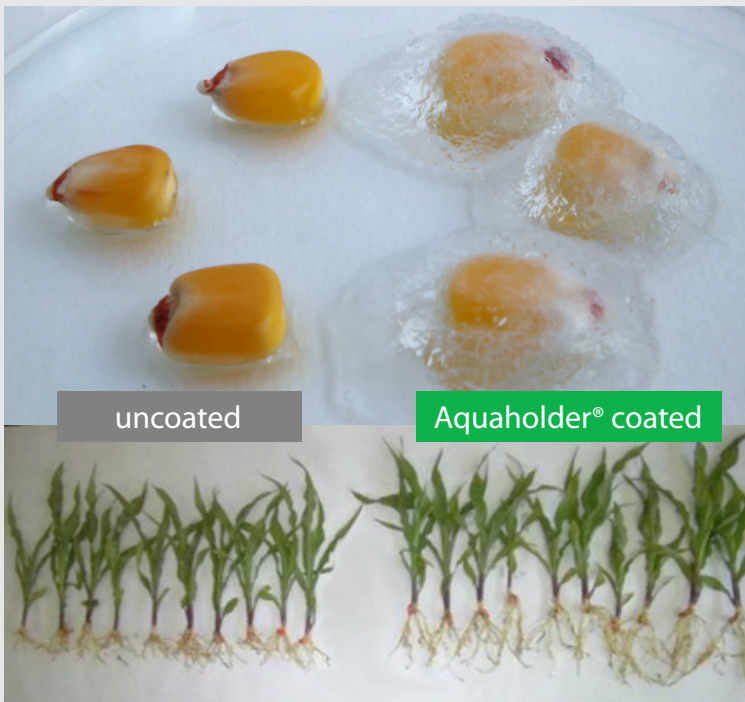
- \ It is a cross-linked potassium salt of polyacrylate and polyacrylamide
- \ It is a substance able to absorb extremely high volumes of water to its own weight, store it and gradually release it to a plant in times of drought
- \ Aquaholder® technology in the form of micro volume seed coating is degradable in soil through UV light, physical, mechanical, and chemical processes over one agricultural season

Most suitable areas for Aquaholder® Seed

Unpredictable droughts are already plaguing growers in areas where there had not been issues with water several years ago (e.g. 2018 European heat wave with record breaking temperatures). Aquaholder® is, therefore, applicable also in these regions as an "insurance" against insufficient amount of moisture in the soil at the time of sowing.



Aquaholder® in action



Watch video



<https://youtu.be/X5IFd3J7Thg>

Contact us at

PEWAS s.r.o., Vansovej 2, 811 03 Bratislava, Slovakia, +421 2 4826 9350, info@pewas.sk, www.pewas.sk

Our vision

Our vision is that Aquaholder® solution ensures necessary crop life components making the Agriculture productive and sustainable.