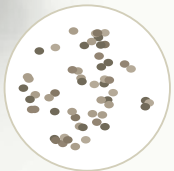
WATER-RETENTION GRANULES · SOIL APPLICATION

AquaSave

MORE WATER.
WHERE ROOTS NEED IT.

Natural water-retention granules for improved root-zone moisture management, irrigation efficiency and crop resilience.





Illustrative granule view

GREY-BROWN GRANULES · 1–4 MM

100% NATURAL
10-YEAR SHELF LIFE

NATURAL SOLUTIONS FOR PRODUCTIVE AGRICULTURE

MNG AquaSave is a natural water-retention granule formulation designed to improve root-zone moisture management and support efficient use of irrigation water across agricultural production systems.

Its mineral-based formulation helps retain water within the soil profile while supporting soil structure, nutrient availability and crop development.

AquaSave is suitable for different soil types and can be integrated into planting and soil-management programmes according to crop, soil and climatic conditions.

WATER RETENTION | **ROOT-ZONE SUPPORT** | **IRRIGATION EFFICIENCY** | **DROUGHT RESILIENCE**

NATURAL WATER-RETENTION FORMULATION

ENGINEERED FOR ROOT-ZONE WATER EFFICIENCY

Natural minerals, micronutrients and organic components in one water-retention formulation.

GUARANTEED ANALYSIS

NATURAL COMPOSITION

MAIN ELEMENTS	
Silicon (SiO_2)	**41.76%**
Calcium (CaO)	**10.9%**
Iron (Fe_2O_3)	**9.2%**
Magnesium (MgO)	**3.3%**
Humic & Amino Acids	**~10%**

TRACE ELEMENTS	
Manganese (Mn)	**436 ppm**
Zinc (Zn)	**53 ppm**
Boron (B)	**20 ppm**
Copper (Cu)	**8 ppm**
Selenium (Se)	**5.35 ppm**
Molybdenum (Mo)	**2 ppm**
Chloride (Cl)	**<0.5%**
Sodium (Na_2O)	**<0.5%**



AGRONOMIC BENEFITS

Water stored. Roots supported.

NATURAL & AGRONOMICALLY COMPATIBLE

A natural water-retention granule formulation designed for agricultural use and integration into crop-production systems.

EXCEPTIONAL WATER STORAGE

AquaSave absorbs up to **65× its own weight in water** and acts as a moisture-retaining component within the soil profile.

ROOT-ZONE MOISTURE SUPPORT

Retains water in the root zone and gradually releases moisture over time, supporting more stable soil-moisture conditions between irrigation events.

SOIL FERTILITY & ROOT DEVELOPMENT

Natural mineral components support soil fertility, nutrient availability, root development and crop establishment.

CROP RESILIENCE & PRODUCTIVITY SUPPORT

By supporting soil moisture management and nutrient availability, AquaSave is designed to support crop performance during moisture-limited conditions.



100% NATURAL · WATER-RETENTION GRANULES

ROOT-ZONE WATER STORAGE. BUILT INTO THE SOIL.

ABSORBS UP TO 65× ITS WEIGHT IN WATER

A Swiss-developed natural water-retention granule formulation designed to retain water within the soil profile and support efficient crop production under moisture-limited conditions.

- SWISS-DEVELOPED FORMULA
- 100% NATURAL
- 10-YEAR SHELF LIFE
- OMRI LISTED
- PROFESSIONAL TECHNICAL SUPPORT

APPLICATION RATES

SANDY SOIL	LOAMY SAND	HEAVY SOIL	GROWING MEDIA
200 kg/ha	**120** kg/ha	**85** kg/ha	**0.3–0.6** %

Application rate should be selected according to soil type, crop, climate and agronomic objective.

APPLICATION PRINCIPLE

AQUASAVE APPLICATION → INCORPORATION INTO ROOT ZONE → IRRIGATION / RAINFALL → WATER RETENTION → GRADUAL MOISTURE RELEASE → ROOT-ZONE SUPPORT

When water is applied, AquaSave absorbs moisture and retains it within the soil matrix. AquaSave can absorb up to **65× its own weight in water.**

The retained water is gradually released within the root zone, helping maintain more stable soil-moisture conditions between irrigation events. The formulation also contributes natural mineral components and meso- and micronutrients to the soil environment.

PHYSICAL / CHEMICAL SPECIFICATIONS

APPEARANCE	GRANULE SIZE	pH	PARTICLE SIZE	BULK DENSITY	WATER ABSORPTION	SHELF LIFE
Granules	1–4 mm	6.5–7.5	10 µm	≈1.3	65×	10 years

TECHNOLOGY

JAM ACTIVATION & MICRONISATION

NATURAL MINERAL RAW MATERIAL → JAM ACTIVATION → MICRONISED MINERAL FRACTION → GRANULE FORMATION → SOIL / WATER INTERACTION → ROOT-ZONE PERFORMANCE

MNG JAM technology uses intensive physical processing and micronisation to reduce mineral particle size and increase active surface area. The process supports efficient interaction between the mineral components, soil moisture and the root-zone environment.

Within AquaSave, the micronised mineral fraction is incorporated into the finished natural water-retention granules for professional soil application.

SOIL · WATER · ROOT ZONE · CROP · AGRONOMIC EFFICIENCY

MANAGE WATER WHERE THE CROP NEEDS IT

APPLICATION → ROOT-ZONE INCORPORATION → IRRIGATION → WATER STORAGE → GRADUAL RELEASE → ROOT ACCESS → CROP DEVELOPMENT

FIELD APPLICATION

APPLICATION BEST PRACTICE

1. **ASSESS THE SOIL**
   Review soil type, salinity, pH, moisture conditions, irrigation system and crop requirement before defining the application rate.

2. **DETERMINE THE REQUIRED RATE**
   Select the AquaSave rate according to soil texture, crop, climate, irrigation regime and field objective.

3. **POSITION IN THE ROOT ZONE**
   For open-field crops, position AquaSave at planting depth or approximately **3–5 cm deeper** where appropriate. The objective is to place the granules within the active crop root zone.

4. **DISTRIBUTE EVENLY**
   Use suitable agricultural spreading or planting equipment to achieve uniform placement.

5. **DO NOT MIX DIRECTLY WITH SEED**
   For open-field crops, load AquaSave into the appropriate fertiliser or application system. Do not mix AquaSave directly with seed where this may create dosing irregularities.

6. **IRRIGATE AFTER APPLICATION**
   Irrigate sufficiently after application to activate water absorption and establish moisture storage within the root zone.

7. **MONITOR SOIL MOISTURE**
   Assess soil moisture, root development, crop condition, irrigation frequency and crop response during the season.

8. **INTEGRATE WITH THE COMPLETE MNG PROGRAMME**
   AquaSave should be positioned as part of the crop-specific **MNG Soil · Water · Plant** strategy.

SOIL-SPECIFIC POSITIONING

SANDY SOILS	LOAMY SAND	HEAVY SOILS	GROWING MEDIA
200 kg/ha	**120 kg/ha**	**85 kg/ha**	**0.3–0.6%**
Use the higher AquaSave application rate where appropriate because sandy soils typically have lower natural water-holding capacity.	Recommended reference rate.	Use the lower application rate according to soil conditions and crop requirements.	Recommended rate.

SALINE SOILS Where salinity management is required, assess the complete soil programme. According to the approved AquaSave SOP, MNG CaMgS may be applied before irrigation where appropriate to support salt leaching. Do not make generic salinity-correction claims without soil analysis.

TECHNICAL SUPPORT

BUILD THE RIGHT WATER-EFFICIENCY PROGRAMME FOR YOUR FIELD.

AquaSave performs best when its application rate and placement are matched to soil texture, irrigation system, climate, crop and production objective. The product should be integrated into a crop-specific **MNG Soil · Water · Plant** programme.

Contact MNG Technical Support for a crop-specific AquaSave application programme.



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