

### Hydromax - Organic-Mineral Soil Amendment and Moisture Retainer

Hydromax is a next-generation soil amendment crafted from 100% natural mineral and organic components, specifically engineered for optimal water resource management and soil health in arid regions. By creating a sponge-like structure in the root zone, Hydromax retains accessible moisture and maximizes irrigation water use efficiency.

Parameter	Specification
Product Name	Hydromax - Organic-Mineral Soil Amendment
Product Type	Soil conditioner, Moisture Retainer, and Cation Exchange Capacity (CEC) Enhancer
Material Origin	100% Natural, Organic, and Mineral
Appearance	Irregular Granules/Aggregates, Dark to Light Brown Color
Main Mineral Structure	Combination of Porous Silicates and Natural Mineral Components
Organic Carbon Content	%2-3
Cation Exchange Capacity (CEC)	High (Minimum 180 meq/100g)
PH	6.5-7.5 (Neutral to Slightly Alkaline)
Total Nitrogen (N)	200 ppm
Available Phosphorus (P <sub>2</sub> O <sub>5</sub> )	450 ppm
Soluble Potassium (K <sub>2</sub> O)	620 ppm
Heavy Metals	Free from harmful heavy elements (Compliant with Agricultural Standards)

### Sustainable Agriculture, Water Management, and Environmental Benefits

Hydromax is a core component in the shift towards sustainable agriculture. Its proven ability to reduce irrigation water consumption by up to 50% makes it an essential solution for water-scarce regions. Through its high Cation Exchange Capacity, Hydromax prevents the leaching of vital NPK fertilizers, resulting in up to 20% savings in fertilizer usage and mitigating groundwater contamination. This not only cuts down on operational costs but also ensures better environmental stewardship. By fundamentally improving soil health and root development, Hydromax enables resilient plant growth with minimal external inputs.

Mixing Methodology	Recommended Dosage	Unit	Plant Type
Homogenous mix below and around the root ball during planting. A ratio of 3-4 by volume to sweet soil is optimal.	15-20 Kg	Piece	Trees & Palms
Homogenous mix below and around the root ball at root depth.	0.5-2 Kg	Piece	Shrubs
Mixed into the upper 15-10 cm of the topsoil using a rotavator or rake.	1-3 Kg	m <sup>2</sup>	Lawns & Sport Fields
Mixed into the top 20-15 cm depth of the planting bed soil.	2-4 Kg	m <sup>2</sup>	Ground Cover & Flower Beds