## DEMAND THE BEST FOR YOUR SPORTS TURF!

# Matrix

SOIL IMPROVER

Zeolite + 14% Seaweed and plant extracts + 15% Calcium (CaO)





#### SOIL IS FUNDAMENTAL TO PLANT GROWTH

Intensive use of sports fields really puts the turf under strain. This means that the priority needs to be on **providing optimum conditions for plant growth to boost its density, strengthen its resistance to different environmental stresses and its durability.** This starts with good soil management.

To optimise soil performance, it is essential to take into consideration its physical, chemical and biological characteristics:

• Physical properties: the porosity of the soil influences the water to air ratio. It affects the root development as well as the water retention capacity in the soil.

• Chemical properties: the CEC of the soil and its mineral content are essential parameters for turf nutrition. Respecting certain fundamental principles, such as Liebig's law of the minimum and taking into account antagonisms and/or synergies between minerals are essential in obtaining healthy and resilient turfs.

• Biological properties: the microorganisms play an essential role in the soil in breaking down the organic matter and making nutrients available. Therefore, it is important to maintain and optimise the microbial life of the soil to ensure optimal transformation of organic matter to avoid it accumulating and thatch appearing.

Using its **« Integrated Plant Care Management », Olmix** takes into account the entire soil/plant system and provides technically, economically and environmentally efficient solutions. The results obtained on sports fields and golf courses show that this concept perfectly meets professional expectations.

## **Matrix**

#### THE BIO-BASED SOLUTION FOR TOP-LEVEL SPORTS SOILS!

Matrix is a micro-granular formula specifically designed to improve the quality of sports soils.

It uses ingredients from natural origins that have been carefully selected for their agronomic and nutritional properties:



#### **Organic ingredients**

- SEADRY® dry marine algae extracts
- Plant matter rich in protein
- Plant biopolymer from timber processing

IMPROVED BIOLOGICAL AND CHEMICAL SOIL QUALITIES

#### Mineral ingredients

- Clinoptilolite
- Diatomaceous earth
- Calcium carbonate and sulfate

IMPROVED PHYSICAL AND CHEMICAL SOIL QUALITIES

#### **SEADRY®** - MARINF AI GAF FXTRACTS

Algae contain ingredients with stimulating properties for plants and the microbial flora in the soil. In-depth knowledge of marine algae and know-how about their conversion processes explains Olmix's acknowledged expertise in the selection of algo-sourced ingredients with unique bioactive properties, very beneficial for terrestrial plants.

#### This expertise gave rise to SEADRY® (SEAweed DRY extracts):



Dehydrated algae extracts, rich in nutrients which can be metabolised by the soil microflora.

- Stimulation of the soil's biological activity
- ► Supply of nutrients for the rhizosphere

#### Why are SEADRY® algae extracts advantageous for turf growth?

Due to their unique ingredients, particularly marine sulfated polysaccharides (MSP®), SEADRY® algae extracts encourage the development of the soil microflora and the root system.





(MSP®) are complex natural macromolecules, synthesized by the algaé. They have original and specific biological properties, valuable for the development of the soil microflora.











SOIL MICROFLORA

Stimulating the microbial life of the soil increases the availability of nutrient elements for the plant, and encourages the development of the root system thus making the turf more resistant to environmental stresses (trampling, hydric stress, etc.).

# Matrix optimises interactions between plants and the soil

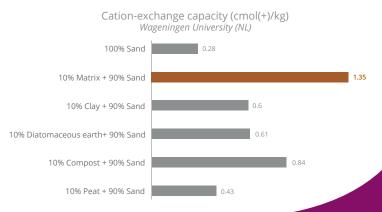
#### Matrix improves water availability

Field tests carried out by the DOC research station at Golfclub Zwolle in the Netherlands show that incorporating 10% Matrix into the substrate for the sand top dressing leads to a significant increase in water availability.

# Monitoring moisture development of the soil (%) Zwolle Golfclub Not treated With application of Matrix

#### Matrix increases the mineral exchange capacity

Protects minerals from leaching and makes them available to the plant when they are needed depending on the CEC of the soil. This test carried out by Wageningen University in the Netherlands shows the effectiveness of Matrix in **improving** the cation-exchange capacity of the soil.



Thanks to its unique formulation, Matrix improves all soil components:



#### Physical qualities

- Increase in porosity
- Optimal air and water circulation

#### **Biological qualities**

- Stimulation of microbial life
- · Breakdown of organic matter

#### **Chemical qualities**

- Increase in CEC
- · Bioavailability of nutrients

- Reduction of thatch
- Cation binding to protect them from leaching
- Gradual release of minerals for turf nutrition
- Optimal moisture retention during dry periods and absorption of excess water in wet periods

#### TURF QUALITY AND DURABILITY

### Characteristics

#### **Analytical values**

Calcium (CaO)	15,5%
Magnesium (MgO)	1,7%
Sodium (Na2O)	4,4%
Organic carbon (C org.)	10%
Dry matter (DM)	99,5%

EC fertilizer: PFC - 3.B -Inorganic soil improver

#### Technical data

Water holding capacity at pF1	49%		
Air holding capacity at pF1	18%		
Total porosity at pF1	67%		
Conductivity	495 ms/m		
рН	6,8		
Density	0,68		
Particle size: 90% between 0.7 and 2 mm			

#### **Packaging**

• 25 kg bag (1000 kg pallet)

#### Use

		Ja	in	Fe	eb	Ma	r	Apr	Ν	lay	Ju	n	Jul		Aug	S	ер	0	ct	No	٧	Dec	Dosage	Applications
Matrix																				Sandy soils: 20 to 30 g/m <sup>2</sup>	Every 4 - 6 weeks			
																						Earth/sand mixture: 20 to 30 g/m <sup>2</sup>	2 to 3 doses depending on CEC	

Matrix can be used in organic farming in compliance with European Regulations 2018/848 et 2021/1165.





