Posidonia oceanica residues and sediments for growth substrate for horticulture

Phase 1: Compo

Aim: to obtain compost ba Posidonia oceanica residu sediments for the preparatio free growth substrate



100 - 200 millions

m3 of sediment dredged in Europe every year

The dredging of the seabed, fluvial and lake beds is necessary to allow navigation and for the protection of man and the environment from the risk of floods.





Contamination

Decontaminated sediment can be used for technosoil preparation

Phytoremediation

Decontamination and improvement of the chemical, physical and biological characteristics



30.000 -100.000 €

Annual cost of residual management for local authorities

Posidonia oceanica

Posidonia oceanica (L.) Delile, which is a higher aquatic plant, is very common in the Mediterranean Sea and is deposited annually on the coast







from waste to resource

Research project financed by





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Phase 2: Orname plant production

Aim: produce ornamental plants on growth substrates with compost based on *P. oceanica* and sediments



Photinia x fraseri



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Pront.

5 millions

m3 of peat imported in Italy every year

----- Peat: a non-renewable

resource

Peat is one of the most used substrates in the nursery sector for its excellent physico-chemical properties

oting	Italian Regulation - Legislative Decree 75/2010 - Reorganization and revision of the fertilizer regulations			
ased on			P. oceanica and sediment based composts	Mixed compost and Green compost
ies and		pН	6.74 - 7.30	6-8.5
on of peat- es		Total Organic Carbon (%)	6.62 - 27.9	> 20
		Humic and fulvic acids (%)	6.0 - 8.6	> 2.5 / >7
		% Organic Nitrogen/Total Nitrogen (%)	90	>80
)	C/N	20.6 - 21.9	< 50 / < 25
		Pb (mg/kg)	12.8 - 38.8	< 140
		Cd (mg/kg)	< 1.5	< 1.5
		Ni (mg/kg)	28.6 - 38.4	< 100
		Zn (mg/kg)	35.2 - 127	< 500
		Cu (mg/kg)	12.3 - 34.4	< 230
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Eleagnus macrophylla

Viburnum tinus

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