

DUNE RESTORATION

with marram grass



VisionH₂O

Vision H₂O is working to protect sand dunes using marram grass (*Ammophila breviligulata*).

These plants are helping restore and revegetate many dunes in the area. The group has had great success with planting marram grass.



The coastal zone

The coastal zone is the area between land and sea. It is a very dynamic and important place which includes many habitats such as estuaries, marshes, cliffs, beaches and dunes.

Although this area is very important, it is also affected by natural phenomena such as erosion and climate change.



The dunes

The hills of sand that stretch out along the seashore are home to many plant and animal species, and they also form a barrier between civilization and the sea.

They act as an important line of defence against waves and storms as they help absorb the energy of the waves.



Marram grass

Beachgrass is a plant that grows on sand dunes and helps stabilize them by holding the sand.

Marram grass plants are very sensitive to trampling, so it is important not to step on them.

The following pages show the method for harvesting and preparing marram grass seeds for sowing and planting on dunes.



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HARVEST

In September and October, the spikes are harvested when they are fully ripe and dry.



1 When harvesting at the beach, be sure not to step on the marram grass.



2 Cut the stems of the marram grass.



3 Spread your spikes and dry them for 24-36 hours.



4 Store in a resealable bag or container.



5 Store the spikes in a dark, cool environment (below 10°C) until January.

PREPARATION

In January, we prepare the seeds for planting.



1 Remove your spikes from storage.



2 Roll the spikes between your fingers to release the seed envelopes (husks).



3 For larger quantities, a paint scraper can be used to remove the husks.



4 Place the husks in a metal strainer and rub vigorously to separate them from the seeds.



5 Rub the husks between your fingers to separate the seeds further.



6 On the right, the seeds are separated from their husks and are ready to be sown.

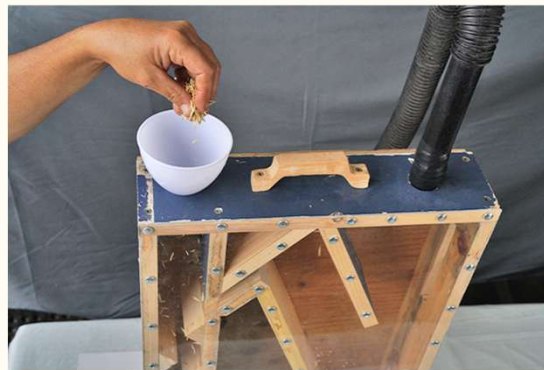
PREPARATION (Winnowing)

Winnowing is a traditional method of sorting, used after harvesting. Winnowing involves using wind (natural or produced by a fan or other means) to separate the seeds.

To prepare large quantities of seeds, Vision H2O has acquired a seed separator for planting marram grass on our beaches and dunes. You can borrow or build a seed separator according to your needs.



The seed husks are pushed into a tunnel by air from a vacuum cleaner operating in reverse.



The husks are passed through the separator several times, depending on needs and quantities.



On one side, the full seed husks are separated from the empty husks and the bare seeds.

SOWING

The prepared seeds can be sown in February.



1 Mix potting soil with a little water, ideally with a little sand (3:1).



2 Prepare trays and lightly tap the soil with your hands to firm it up.



3 You can use a small stick to make furrows.



4 Sow the seeds in sufficient quantities to ensure that a good number of them germinate.



5 Use the stick again to gently press the seeds into the soil. This prevents air pockets and ensures that the seeds are in contact with the soil.

SOWING (continued)



6 Cover with a thin layer of seed mix or use vermiculite to better retain moisture.



7 Spray regularly with a spray bottle, taking care not to flood the soil.



8 Place the tray in a warm, well-lit spot, ideally between 23 and 25°C. Keep the soil moist, but do not overwater. Allow them to grow to a height of about 4 inches.

TRANSPLANTATION

The young shoots are transferred to a tray to grow individual seedlings.



1 Add a little water to the soil, but just enough to be able to form a ball with your hand.



2 Rub the soil with your hands to remove any clumps.



3 Add soil to the tray to fill it.



4 Remove excess soil to level the ground and tap the tray to remove air pockets.



5 The tray is now ready for transfer.



6 Remove the plants from the seed tray.

TRANSPLANTATION (continued)



7 Divide the marram grass stems and transfer them one by one.



8 Be sure to keep as many roots intact as possible.



9 Use your finger to make holes in the cells of the tray.



10 Carefully place a plant in the hole and cover with a little soil. Press gently to remove any air pockets.



11 Water the tray regularly to prevent it from drying out.



12 Place outside in a sunny spot.

TRANSPLANTATION (continued)



13 After a few weeks, the seedlings are ready to be planted on the dunes and beaches.

PLANTING

In May, marram grass is planted in the sand dunes.



1 Separate the marram grass seedlings.



2 Dig a hole about 20 cm deep where the marram grass is planted.



3 Insert part of the marram grass stem into the hole. Make sure the roots are covered with sand and that they reach the moist sand.



4 Gently compact the sand around the plant with your foot to remove any air bubbles near the roots.



5 Water the planted marram grass.

PLANTING

Result: marram grass transplanted at the end of the first year.





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