

# A method for planting large emergent plants in shallow water

Our fen creation site, Flasks Fen, is located at Nosterfield Quarry in North Yorkshire. Water levels fluctuate due to quarrying operations, so much of our planting has to take place in shallow water. We quickly discovered all sorts of drawbacks with the usual technique of digging a planting hole, not least that it was a wet and uncomfortable activity for volunteers with the added problem that plants often floated out of their holes afterwards.

We developed a method for planting 3 to 5 plants in compost-filled, biodegradable sandbags, which are then placed in wet beds until they are rooted through (see <https://www.luct.org.uk/plant-propagation>). The sandbags can then be lowered into place without digging. This technique proved very successful but was less suitable for establishing large plants such as those grown-on in 1 litre pots. Here we describe an adaptation of the sandbag planting method for larger plants.

**Step 1:** Cut a biodegradable sandbag in half. One half can be used as-is, the other will need stitching, using blanket stitch with biodegradable string or hessian twine or by machine with cotton or biodegradable thread.





**Step 2:** Place 1 litre of 20 mm gravel in the bag for weight and stability.



**Step 3:** Remove the plant from its pot and place on top of the gravel, then pack around it with peat-free compost. More gravel can be added on top.





**Step 4:** Place the bag upright in about 5 cm of water to allow the roots to grow through the gravel and the hessian. This can take up to 24 days in summer.

**Step 5:** When roots show through the bottom of the bag, it's ready for planting out. Don't leave the bag standing for too long or it will begin to rot (waxed sandbags are more expensive but will last longer if there is a delay in planting). Scooping out a small hollow will help keep the bag in place and allow the plant to stay upright while it roots into the substrate.



We've used this method successfully to establish large plants of Great Fen Sedge *Cladium mariscus* in shallow water over silt.

Produced by Laurie Reed, Pandora Thoresby and Martin Hammond for the Lower Ure Conservation Trust, September 2023.

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