

How to install a sedimat

You need:

A piece of astroturf with a number and a weight (g) written on the back
4 metal pegs (3 smooth and 1 triangular and wobbly edged)
A ziplock bag

You will also need a piece of plastic the same size as the sedimat (for example a cut out piece from a compost bag or similar), and a mallet/hammer.

This is your sedimat kit. You need to put this out on your site before a flood is likely. If possible wait until any livestock have been removed as they are likely to soil the mat.

Where to locate the sedimat

Find a low point in the field, somewhere where you think sediment is likely to drop out. This is more likely where water flow slows down. The ground surface should be relatively flat, no hummocks or slopes – to get an even deposit of sediment.

How to install the sedimat

Put the piece of plastic on the ground where the sedimat is to go. Place the sedimat on top. The plastic prevents silt loss through the mat during the flood and keeps the underside of the sediment clean.

Peg down the 4 corners of the plastic and the mat. It is important that one of the pegs is a triangular one as this will lend strength in the event of a big flood.

Record the location on your GPS, and consider marking it with a cane as well if your site is private not public access (or if there is risk of interference you could place the marker cane 3 m due north (or east, S, W) of the mat so that it serves as a guide for you without drawing the attention of others directly to the mat.) Note the distance from nearby landmarks in case GPS is unreliable, as for botanical quadrats.

Wait for a flood.

How to remove the sedimat

Return to the sedimat as soon after a flood as you can, if possible noting the date, duration and depth of the flood. Take your ziplock plastic bag with you.

Remove the sedimat and underlying plastic as one unit. Remove the pegs (usually they stick in the mat) and carefully slide the mat into the plastic bag, being careful not to let any sediment fall through or off the astroturf. The underlying plastic should be removed. It is there mainly to keep the underside of the sedimat clean and will probably have worm casts

and leaf litter sticking to it. It prevents water seeping through the mat and thereby limits sediment loss through the gaps.

Close the bag. Take or post the sealed bag to the labs. If the posting is going to take some time, let the mat air-dry to avoid unwanted chemical processes taking place in the sealed bag. Be careful during drying that sediment is not lost.

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