Method for taking a soil sample

Select a representative area of vegetation from which to take the soil sample from the area of meadow where your quadrats are located. Do not take the sample from within a quadrat as that will spoil your vegetation survey for next year.

If you have a small soil corer, take 12 small soil cores, to a depth of 10cm, within a few metres and put them as a bulk sample into a plastic bag. If you are using an ordinary garden trowel, then 6 samples will suffice. Label the bag with site name, date, quadrat number, your name and FMP. Be careful to take a consistent depth for all samples.

Make sure that you are collecting the full soil cores as some pieces of soil often fall out. The amount of soil collected should weigh about **250-300 grams** as smaller soil samples are difficult to analyse. You may find that the number of the cores should be increased (or decreased) in order to get an appropriate amount of soil.

Dry out the sample completely by spreading it out on a piece of paper in a warm dry airy place. Do not directly heat the sample. Do not seal the soil in bags with ties or place it in an air-tight box (except briefly if absolutely necessary for transport). Allowing anaerobic conditions to develop will strongly distort the P-availability reading. Keeping the samples chilled is not a priority, encouraging them to dry out is.

Soil samples can be taken or posted to an appropriate agricultural lab and rested for extractable phosphorus and soil pH.

March 2023

The suitability of soils with different extractable phosphorus levels for floodplain meadow creation or restoration.

Index[1]	Olsen's P Range (mg/l)	Comments
0	0-9	5-15mg/kg P is the range within which many species-rich floodplain meadow sites are found.
1	10-15	This range should be perfect for the typical floodplain meadow plant community.
2	16-25	Species-richness declines above 20mg/kg, but it is still worth attempting restoration/creation within this range
3	26-45	Consider reducing P levels by growing a catch crop such as barley on arable, or reduce P on improved grassland through hay crops (up to two per year). It might take several years before P levels start to fall, particularly on clay-rich soils.
4	46-70	Values above 50mg/kg are probably too high for restoration unless drastic measures such as top soil stripping or soil inversion, deep ploughing or chemical amendment can be undertaken.

[1] The P index for a soil reflects the amount of P present ranging from index 0 (very low fertility) to index 9 (very high fertility). More information about these can be found in Natural England Technical Information Note TIN036 'Soils and agri-environment schemes: interpretation of soil analysis. http://www.floodplainmeadows.org.uk/files/floodplain/TIN036[1]%20Soil%20and%20agri-environment%20schemes_interpretation%20of%20soil%20analysis.pdf