

Is it dry with you? - Primary cultivations for maize seedbeds this year

Simon Draper provides some cultivation tips for what is turning out to be a difficult spring.

Introduction

About 80% of maize land is yet to be cultivated and with such low soil temperatures (See the MGA web site for the latest soil temperature data, www.maizegrowersassociation.co.uk) it looks likely that we are having a late drilling season with ongoing forecasts of cold nights suggesting we will not be drilling much conventional maize until early May if we are lucky!.

That said the good news is that the strong north easterly winds are drying the land out well and in so doing are offering the potential to improve soil structure. Primary cultivation should be considered if the land is dry enough and the decision for many is therefore How should I be preparing my soil?

The options out there include:-

Ploughing

Ploughing offers the potential, and in severe circumstances where the field is badly rutted, the only option to remove close to the surface compaction and surface rutting. Ploughing should only be carried out if it will improve and not further complicate the situation. Ploughing should only be contemplated if the soil moisture levels at plough depth are sufficient to avoid smearing and a subsequent plough pan forming. The situation is best investigated by digging down to plough depth and then assessing the soil moisture content.

When chosen, ploughing should be carried out as soon as possible (particularly on the heavier soil types) and the turned up soil left to dry. With luck there will be some frost which will help the soil to weather and make it easier to obtain a good seedbed later on. Sub-soiling, after the top soil has dried a little, should be considered if a smeared plough pan has been created and needs breaking.

Once subsoiled the field should then be knocked down into a rough seedbed ready for drilling when the temperatures warm up.

Subsoiling

Where ploughing is to be avoided the fields still need to be cultivated at depth to allow rapid, deep access to the maize root systems. This can be achieved by sub-soiling with the depth of work of the sub-soiler being determined by the dryness of the soil at depth. Ideally the sub-soiler should work at about 10-12 inches - just below the plough depth. As always with sub-soiling soil conditions need to be spot on to get most benefit and you should check soil at working depth to see if it is too wet. If the soil can be formed into a ball which does not crack when a little pressure is exerted it is too wet. When the soil is too wet consider adjusting the depth of work to a height where the soil moisture levels are right.

Where sub-soiling alone is going to be your cultivation choice treat the field with glyphosate before subsoiling to ensure good weed control and a clean start for the crop. Where eyespot was a serious problem last year and the field is returning to maize please do not subsoil - these fields need to be ploughed!!

Chisel plough

If the land is too wet at depth (which is likely to be the case for the majority) then the best option is to chisel plough at about 4-5 inches and allow the disturbed soil to dry a little before repeating the treatment at a slightly greater depth after about 4-5 days. With continued dry weather these fields should be fit to drill by early May.

Chisel ploughs will level fields and take out the ruts when worked twice - they do though need to be worked twice as areas of the field will remain uncultivated with just one pass.

Fine seedbeds?

Finally, when normally talking about seedbeds, I would say that fine beds are not what are required - This year however is likely to be different, particularly for the later drilled the crops where moisture deficits may be an issue. In these circumstances a fine seedbed will conserve moisture and should be considered. (Come back power harrow all is forgiven!!).

Years such as this present real challenges to growers and I would urge members to feel free to phone me, via the MGA office, to discuss their individual farms if you feel this may be useful. The MGA office number is 01363 775040.