



SEED

Many growers have seed that was been trayed up weeks ago but the poor weather all through March has delayed getting these out into the field, check the buds on these. Many growers have put seed back into the fridge and turned the lights on to try to hold the sprouts. Keep the temperature at about 4 degrees Celsius be careful not to chill the seed. Long soft sprouts will be knocked off at planting and will result in uneven germination. If sprouts are starting to get too long, get the trays outside as soon as possible in full light to harden off the buds.

PLANTING

With very little earlyies or second earlyies planted to date growers now have to prioritise these when planting re-starts. However be patient and wait until soil conditions are favourable before planting. Consider planting a section of the crop slightly shallower to possibly get these emerged earlier. Soil temperatures are higher now (Table 1) so they should emerge quicker. Avoid over fertilising as this will only delay maturity, increase the plant spacing which should help the crop reach the desirable size quicker.

Table 1; **Met Eireann Soil Temperature**

03/04/2018 to 09/04/2018

Station	Soil Temp °C	Diff. from Normal
Cork Airport	8.2	0.9
Dublin Airport	7.4	0.2
J'stown Castle	8.7	0.9
Malin Head	6.9	-0.4
Oak park	8.6	1.3

For maincrop varieties take your time and again wait for soil conditions to become more favourable. Planting into cold wet soils gives rhizoctonia and blackleg more of a chance to infect the crop. As mentioned in the last newsletter, compaction will delay emergence, reduce the total amount of light intercepted and as a result reduce yield. Wait until the soil has dried out before ploughing, the tractor can cause significant compaction in furrow if the soil is wet. Consider cultivating the soil before ridging to allow air into the soil so that it can dry out quicker. This will reduce the risk of the ridging process causing compaction. Avoid sub-soiling, it is rarely beneficial at this time of year as generally soils are too wet at depth.

De-stone no deeper than 35cms on sandy soils and no deeper than 28cms in heavy soils. Trials from the UK have shown working below these depths can actually reduce yield, it will cost more money (£8-15/ha) and it will also significantly slow down the operation. Mark Stallum and Mark Allison from NIAB CUF in the UK have produced an excellent report on "Improving cultivation practices in potatoes" which can be downloaded at; https://potatoes.ahdb.org.uk/sites/default/files/publication_upload/R459%20Cultivations%20FINAL.pdf

The report gives some practical advice in soil preparation at planting time as well as some of the results from the trial work.

Finally check all machines are working properly and pay particular attention to fertiliser, fungicide and nematicide applicators as these can often be overlooked when general maintenance is being carried out.

FERTILISER

Fertiliser will cost approximately €550-600 per hectare (Teagasc costs and Returns 2018) depending on the blend and the soil P & K indexes. Avoid soils that are in index 1 or 2 for P & K as these soils will have a lower yield potential and will cost more in nutrition.

Apply all the compound fertiliser requirements into the seed bed. Potatoes poorly utilise phosphate due to its small root structure so a well prepared seedbed is essential for good nutrient uptake. Tables 1-4 show the recommended rates of N, P & K for the different crops and are based on the Teagasc Green Book 2016 guidelines (Ch. 17 Pg. 104-109), which is available at <https://www.teagasc.ie/media/website/publications/2016/soil-fertility-green.pdf>

Table 1: The nutrient requirement kg/ha (units/acre) for maincrop varieties >120 days e.g. Rooster/Golden wonder are:

Soil Fertility (P & K Index)	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)
Poor (1)	170 (136)	125 (100)	305 (244)
Deficient (2)	145 (116)	100 (80)	245 (196)
Moderate (3)	120 (96)	75 (60)	185 (148)
High (4)	95 (76)	50* (40)	120 (96)

Table 2: The nutrient requirement kg/ha (units/acre) for early potatoes 60-90 days e.g. Homeguard/Premiere are:

Soil Fertility (P & K Index)	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)
Poor (1)	155 (124)	125 (100)	170 (136)
Deficient (2)	130 (104)	115 (92)	140 (112)
Moderate (3)	105 (84)	100 (80)	110 (88)
High (4)	80 (64)	50 (40)*	80 (64)

Table 3: The nutrient requirement kg/ha (units/acre) for salad potatoes 60-90 days e.g. Maris Peer/Charlotte are:

Soil Fertility (P & K Index)	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)
Poor (1)	120 (96)	125 (100)	245 (196)
Deficient (2)	100 (80)	115 (92)	185 (148)
Moderate (3)	80 (64)	100 (80)	120 (96)
High (4)	70 (56)	50 (40)*	65 (52)

Table 4: The nutrient requirement kg/ha (units/acre) for seed potatoes are:

Soil Fertility (P & K Index)	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)
Poor (1)	155 (124)	125 (100)	170 (136)
Deficient (2)	130 (104)	115 (92)	140 (112)
Moderate (3)	105 (84)	100 (80)	110 (88)
High (4)	80 (64)	85 (68)*	80 (64)

*Where soil P test is above 15 mg/l, no P fertiliser is necessary

Shay Phelan

Teagasc

Potato Specialist

087-7985195

shay.phelan@teagasc.ie