



## Phosphorus build-up training programme (article 16(5)(d) of S.I. no. 605/2017)

### Farmer learning objectives leading to best practice adoption

- Knowledge of measures for the protection of water quality under Nitrates Directive –NAP.
- Best practice in nutrient management planning and fertiliser application.
- Understanding importance and achievement of P build up in a sustainable manner.
- Maximising the efficiency and utilisation of organic manures.
- Identifying and ensuring protection of critical source areas (i.e. areas with higher nutrient loss risk).

### Sources of information and course training materials

- Course P build-up training material <https://www.teagasc.ie/crops/soil--soil-fertility/soil-p-build-up-training-material/>
- Nitrates Directive –NAP Statutory Instrument (S.I.) 605 of 201
- Health & Safety <https://www.teagasc.ie/rural-economy/farm-management/farm-health--safety/>
- EPA Water and Communities areas for Action <http://watersandcommunities.ie/areas-for-action/>
- EPA catchments - water quality <https://www.catchments.ie/>
- Teagasc Soil and Soil Fertility website <https://www.teagasc.ie/crops/soil--soil-fertility/>
- Teagasc Green Book <https://www.teagasc.ie/media/website/publications/2016/soil-fertility-green.pdf>
- NMP On-line <https://www.teagasc.ie/environment/soil/nmp/>

### Agenda – topics to be covered in the training programme provided to farmers.

Topic (Session 1)	Time - Minutes
Introduction and background the Soil P Buildup	10
Update on new water protection measures in SI 605/2017 - Water quality trends in Ireland and locally - Prevention of runoff from farm roads - Set back of water troughs from watercourses - Fencing watercourses - Prevention of run off from poaching - Soil sampling - Phosphorus management and P build up - Soil organic matter testing - safeguarding ‘peaty’ soils	40
Understanding soil analysis results and understanding the NMP/Fertiliser plan	30
Addressing soil pH & liming requirements	20
Balancing Nitrogen, Phosphorus and Potash requirements	25
Selecting the correct fertiliser, fertilising programme and Lime plan for next 4 years	30
Review of fertiliser plans for best environmental outcomes	25
<b>Total 1<sup>st</sup> session (indoors)</b>	<b>180 minutes</b>

<b>Topic (Session 2)</b>	<b>Time - Minutes</b>
Health & Safety on the farm <ul style="list-style-type: none"> <li>• Safety as regards manure storage facilities</li> <li>• Safety with machinery</li> <li>• Safety with animals</li> </ul>	30 (outdoors preferably)
Effective Nutrient Management Planning for optimum environmental outcomes Identifying and protecting critical source areas and areas with higher risk of nutrient runoff on the farm. Phosphorus loss risk & mitigation <ul style="list-style-type: none"> <li>• Protecting critical source areas</li> <li>• Management on heavy soils</li> <li>• Sloping land and water logged soil</li> <li>• Assessment of soil type on farm (high OM soils)</li> </ul>	45 (outdoors preferably)
Organic manure management – maximising use of nutrients in manures <ul style="list-style-type: none"> <li>• Timing, rate and place of application</li> <li>• Low Emission Spreading - minimising Ammonia emissions &amp; improving utilisation</li> <li>• Critical source area management</li> <li>• Buffer Zones and set back distances</li> </ul>	30 (outdoors preferably)
Q & A	15
<b>Total 2<sup>nd</sup> session (outdoors preferably)</b>	<b>120 minutes</b>
<b>Grand Total Course contact time (minutes)</b>	<b>300 Minutes</b>

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