Using data management systems to facilitate better nutrient management planning on Irish farms

Mechan, S., Lalor, S.T.J., Shine O., Jordan, P. & Wall, D.P.

1Agricultural Catchments Programme, Teagasc, Johnstown Castle, Co. Wexford, Rep. of Ireland
2Teagasc, Crops Environment & Land Use Programme, Johnstown Castle, Co Wexford, Rep. of Ireland
3School of Environmental Sciences, University of Ulster, Coleraine, N. Ireland

BACKGROUND
• In Ireland farm fertilizer planning (for nitrogen & phosphorus) is mandatory under cross compliance.
• The cost of fertilizers has increased continuously since 2000 causing farmers to re-evaluate their fertilizer input strategies in order to increase fertilizer use efficiency and reduce costs.
• A Nutrient Management Plan (NMP) is a strategy for maximising the return from on- and off-farm chemical and organic fertilizer resources.
• A NMP can yield a double-dividend of optimising fertilizer costs and protecting the environment.
• To date developing an NMP has been a time consuming process involving collation of data from a number of disparate sources, and resulting in complicated and lengthy spreadsheet outputs

THE AGRICULTURAL CATCHMENTS PROGRAMME (ACP) (Fealy et al., 2010; Wall et al., 2011), have developed an innovative geo-computational information management system based around geographical information systems (GIS) for coordinating nutrient management planning on Irish farms, to compliment an existing Teagasc In-house NMP tool (Lalor, STJ, 2012).

REFERENCES
• Lalor, STJ., – Nutrient Management Planning Tool, version 7 2012.

AIM
The Agricultural Catchments Programme (ACP)

BENEFITS
• Enable farmers, advisors & researchers to utilise multiple farm nutrient sources and geospatial datasets
• Overlay many years of soil analysis results to track temporal changes in soil fertility and nutrient management
• Facilitates integration of geospatial analysis against a wide variety of other datasets
• Maximises the integrity of the data; each year information from the NMR feed into the new NMP

REFERENCES
• Lalor, STJ., – Nutrient Management Planning Tool, version 7 2012.

DEMONSTRATING BENEFITS TO FARMERS