02445
Statistical evaluation
of artificial intelligence systems
Project II

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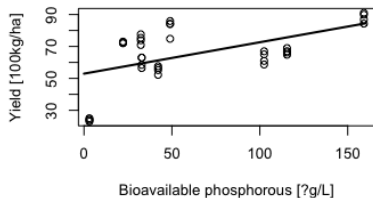
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Choosing between Olsen P and DGT measurements

► Evaluating models
► Testing for significance
► Analyzing residuals

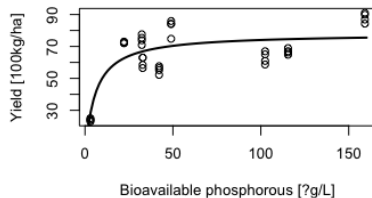Does the amount of bioavailable phosphprous influence the harvest yield?

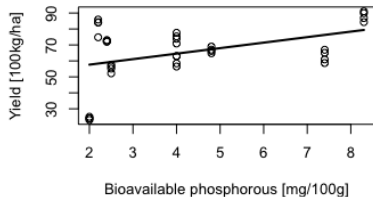# Choosing between Olsen P and DGT measurements

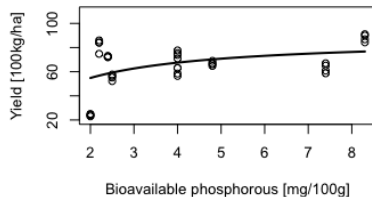# Choosing between Olsen P and DGT measurements

Model	Linear DGT	Linear Olsen-P	Non-linear DGT	Non-linear Olsen-P
Std squared error	15.37	16.55	10.58	16.33
p-values	DGT = 0.000685	Olsen-P = 0.0103	Alpha = 2e-16 Beta = 0.0014	Alpha = 1e-9 Beta = 0.0432

Choosing between Olsen P and DGT measurements

Paired t-test between:	t-statistic	df	p-values
Non-Linear DGT - Non-linear Olsen-P	-2.694	35	**0.011**
Non-Linear DGT - Linear Olsen-P	-2.481	35	**0.018**
Non-Linear DGT - Linear DGT	-2.381	35	**0.023**
Linear DGT - Linear Olsen-P	-1.874	35	0.069
Linear DGT - Non-linear Olsen-P	-1.590	35	0.12
Linear Olsen-P - Non-linear Olsen-P	0.3065	35	0.76

Residuals from linear and non-linear DGT measurements