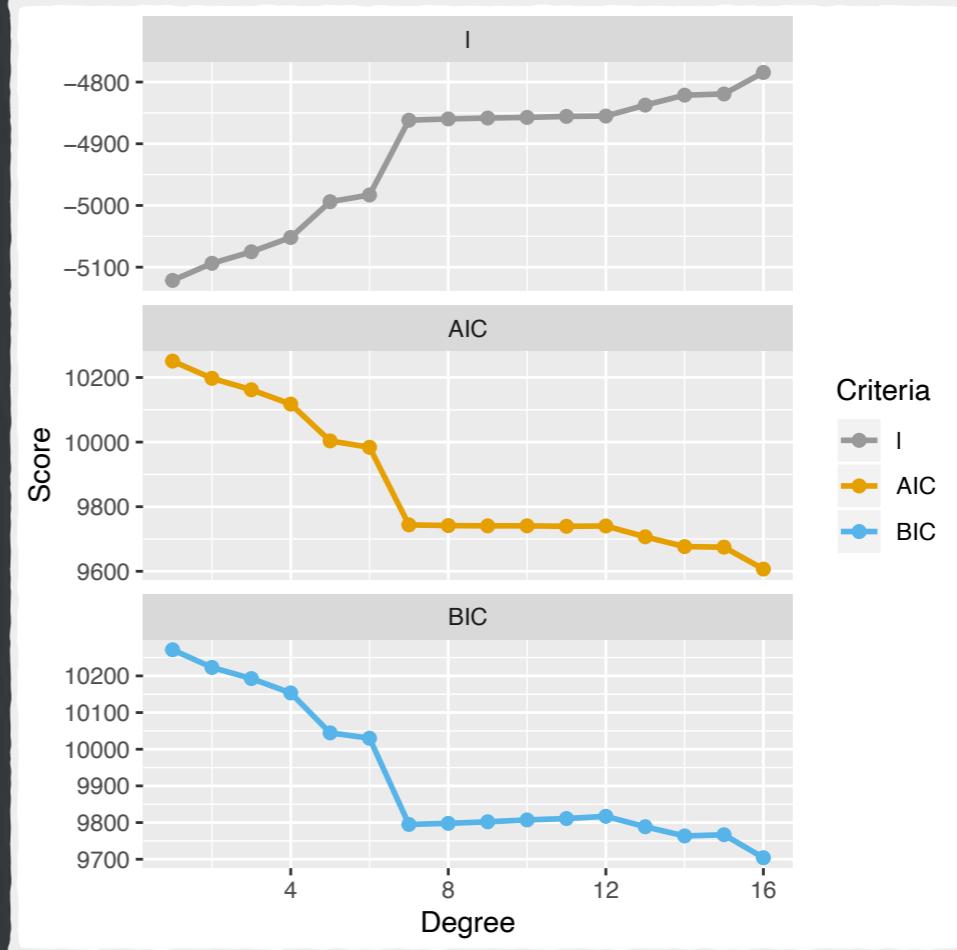
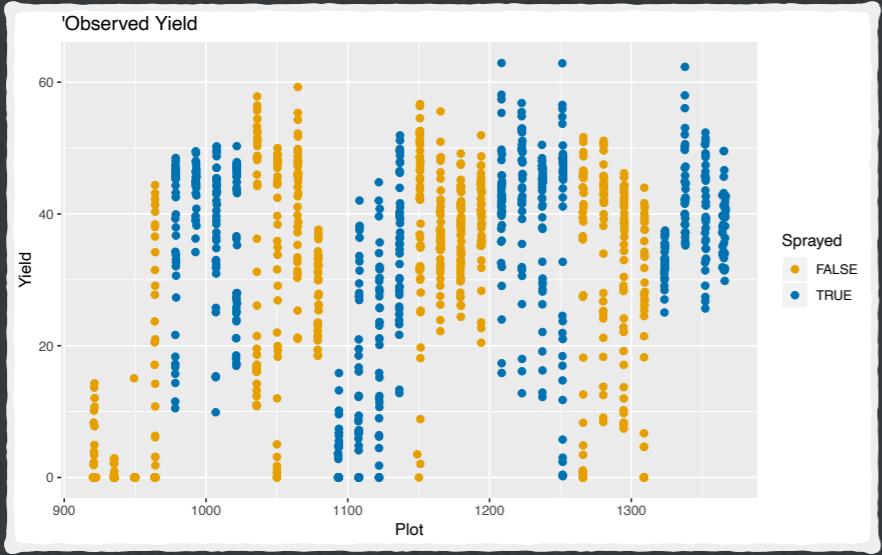
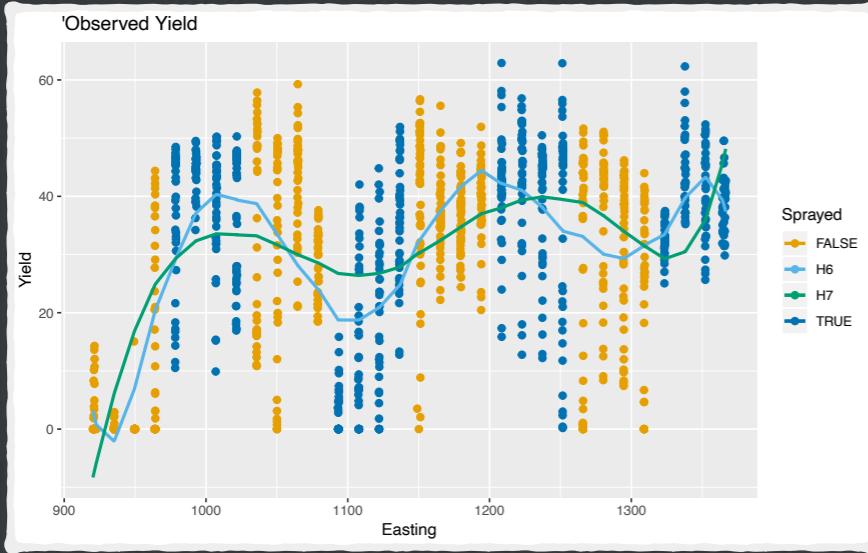


Model Selection



- There appears to be little benefit with a polynomial of degree higher than 7

Model Comparison



- Likelihood test to compare H_6 and H_7

- Likelihood ratio test

Model 1: Yield ~ poly(Easting, 6) + Sprayed
Model 2: Yield ~ poly(Easting, 7) + Sprayed

#Df	LogLik	Df	Chisq	Pr(>Chisq)
1	9	-4983.0		
2	10	-4861.9	1	242.29 < 2.2e-16 ***

- Likelihood test to compare H_7 with and without treatment effect

- Likelihood ratio test

Model 1: Yield ~ poly(Easting, 7)
Model 2: Yield ~ poly(Easting, 7) + Sprayed

#Df	LogLik	Df	Chisq	Pr(>Chisq)
1	9	-4869.0		
2	10	-4861.9	1	14.276 0.0001579 ***

- But,

$$H_6 : \tau = -0.86$$

$$H_7 : \tau = -3.02$$

