Fit a linear mixed-effects model to the data, treating the individual plants as the random groups, and including both week and treatment as explanatory variables, as well as a week by treatment interaction term. Obtain a summary of the model results.  
Use the anova function to compare the fit of this model with the fit of the previous ancova model with interaction.  
Create a plot of residuals against fitted values to check one of the model assumptions.  
Create a strip chart showing the linear mixed-effects model residuals in each treatment group. Based on this plot,has the problem identified with the linear regression model been fixed?  
Create a scatterplot of week versus the linear mixed-effects model residuals. Based on this plot, has the problem identified with the one-way anova regression model been fixed?  
Create a scatterplot of week versus the linear mixed-effects model residuals for each treatment group. Add a linear regression line to each plot to show the trend for each treatment group. Based on these plots, has the problem identified with the no-interaction ancova model been fixed?Create a scatterplot of plant "number" versus the linear mixed-effects model. Based on this plot, has the problem identified with the interaction ancova model been fixed?

and here's the csv http://www.filedropper.com/finalprojectpart2plantgrowth