**Kylie Blake**

**All responses are below in purple**

**Markdown – 25 pts**

PLEASE READ THIS BEFORE CONTINUING

This assignment will help you practice integrating markdown into your R scripts for literate programming. It will also involve some more practice with GitHub. You may collaborate with a partner to enhance your learning experience. Please ensure the following:

* **Collaboration**: If you work with a partner, include both names on the final submission by editing the YAML header.
* **Submission**: Only one person should submit the assignment to Canvas *in a Word document or .pdf file generated through R markdown*. Additionally, you should provide a link to your GitHub, where the assignment should be viewable by rendering it as a GitHub-flavored markdown file.
* **Setup**: It is also assumed you already have a GitHub repository for this class.

1. 4 pts. Explain the following
   1. **YAML header** 🡪 is a section of text at the top of an Rmarkdown file that gives info about the title, author, and date of the Rmd file, but the output section also determines the final file format, such as an HTML, word, or PDF document.
   2. **Literate programming** 🡪 R markdown files allow you to combine R code with natural language, such as English. This allows the user to explain how their code works in a common language, while also execute code chunks.
2. 6 pts. Take the code you wrote for coding challenge 3, question 5, and incorporate it into your R markdown file. *Some of you have already been doing this, which is great!* Your final R markdown file should have the following elements.
   1. At the top of the document, make a clickable link to the manuscript where these data are published. The link is here:
      1. Noel, Z.A., Roze, L.V., Breunig, M., Trail, F. 2022. Endophytic fungi as promising biocontrol agent to protect wheat from *Fusarium graminearum* head blight. Plant Disease. <https://doi.org/10.1094/PDIS-06-21-1253-RE>
   2. Read the data using a relative file path with na.strings option set to “na”. This means you need to put the Mycotoxin.csv file we have used for the past two weeks into your directory, which git tracks.
   3. Make a separate code chunk for the figures plotting the DON data, 15ADON, and Seedmass, and one for the three combined using ggarrange.

See Code for a, b, and c

1. 6 pts. Knit your document together in the following formats:
   1. .docx (word document) OR .pdf with a table of contents
   2. GitHub flavored markdown (.md file).

See Code for a and b

1. 2 pts. Push the .docx or .pdf and .md files to GitHub inside a directory called Coding Challenge 4.

See Code

1. 6 pts. Now edit, commit, and push the README file for your repository and include the following elements.
   1. A clickable link in your README to your GitHub flavored .md file
   2. A file tree of your GitHub repository.
2. 1 pt. Please provide me a clickable link to your GitHub

<https://github.com/kzb0180/PLPA6820>