**Host Response (RQ2)**

Author: Joyalea Carson-Austin

Supervisor: Dr. Miranda Hart  
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University of British Columbia – Okanagan

**RQ 2: Does the identity of an AMF isolate introduced into a community affect host response (host biomass, host P, host seed production, host mortality)?**

This research question investigates the effect of AMF isolate identity (treatment) on host response (aboveground biomass, total phosphorous (g), seed production and mortality\*).[[1]](#footnote-1)

1. **Repositories**

/RQ2\_HostResponse/ – All files required to reproduce the analysis

/Analysis/ – All scripts to reproduce statistical analysis and generate visuals

/RAW/ – Raw collected data

1. **Data Descriptions (located in /RQ2\_HostResponse/)**

| **File Name** | **Description** |
| --- | --- |
| host\_response\_2024 | Contains aboveground host biomass, total host P, seed production. Aboveground biomass is pooled by host species within each mesocosm. |

1. **How to Use**

Open the appropriate R Markdown file and use the corresponding dataset(s) to reproduce the analysis. Run the code from top to bottom.

| **R Markdown File** | **Corresponding Data Files** |
| --- | --- |
| RQ2\_host\_response\_Markdown.Rmd | host\_response\_2024 |

1. **Dependencies**

R version 4.3.2

1. **Data Reference**

| **Variable** | **Description** |
| --- | --- |
| biomass | Aboveground host biomass (g) |
| P | Percent host foliar phosphorous |
| treatment | AMF isolate identity (Control, DAOM 197198, DAOM 240448, DAOM 240720) |
| species | Host plant species (*Gaillardia aristata, Festuca idahoensis, Bromus tectorum, Taraxacum officinale*) |
| mesocosm\_id | Unique identifier for each mesocosm (experimental unit) |
| sample\_id | Unique identifier for each individual host within a mesocosm |

1. Host mortality was analysed with RQ3 as the plant community data set included unpooled host response. [↑](#footnote-ref-1)