Introduction

Materials and Methods

Plant Materials

-25 seeds of 709-2 (Resistant)

-25 seeds of 03-124 (Susceptible)

-Seeds sown into trays and seedlings were transplanted into 9 x 7 inch pots.

-Plants were kept in the greenhouse (find out greenhouse conditions).

Inoculation

-Inoculated at 6 weeks old

-Rhizoctonia strain used was “R9” AG 2-2 IIIB

-Inoculated with 0.6 grams of ground infested barley next to root and covered with soil.

- Greenhouse was warmed and soil moisture increased by sprinklers.

-Half of each cultivar were inoculated and the other not.

Tissue Collection

-Tissue collected and flash frozen immediately.

-“Below Ground” tissue consisting of the entire root

- “Above Ground” tissue consisting of the entire petiole.

-Collected into bags as Resistant Inoculated, Resistant Uninoculated, Susceptible Inoculated, and Susceptible Uninoculated.

-Tissue was ground via mortar and pestal and total RNA was extracted using Qiagen RNeasy kit.

-Total RNA was purified after a DNAase treatment and purification through RNAeasy kit.

-Total RNA sent to Novogene for RNA-Seq.

RNA-Seq Analysis

-Tassle