



Antagonistic assay report

Client Details:**Report Date:**

Client: Eco Health Industries Ltd. Contact person: Darcy Lepine Account #	May 5, 2021
---	-------------

Object

To test inhibiting purposes of Liquid concentrate (Beneblok) amended with an activator (Restor8) (6:0.5 ratio) against prominent Turf grass pathogens such as Snow Mold (*Microdochium nivale*-10178), Dollar Spot (*Clariireedia jacksonii*-SH84/(formerly / *Sclerotinia homoeocarpa*/), Anthrocnose (*Colletotrichum graminicola*-00173).

Methods and Results

Liquid concentrate with activator at the standard application rates of 5ml / litre of the liquid, and 1.6 grams / litre activator combined, vortex mixed. All the listed turf grass fungi were plugged onto potato dextrose agar amended with nutrient agar (PDA-NA) media plates. A 50uL of the mixed product was placed at each of the four quarters from a fungal plug in duplicates. Plates were kept at 25 °C for 5 days prior taking pictures. Results for each fungus were listed in Table 1 and Figure 1,2 and 3. Respective positive and negative control pictures are shown in the bottom blocks.

Table 1. Antagonistic assay results.

	Sample	Antagonism
1	<i>Microdochium nivale</i> (10178)	Strongly Positive
2	<i>Clariireedia jacksonii</i> (SH84)/(formerly / <i>Sclerotinia homoeocarpa</i> /)	Positive
3	<i>Colletotrichum graminicola</i> (00173)	Strongly Positive



Figure 1. Antagonism against Snow Mold - *Microdochium nivale*

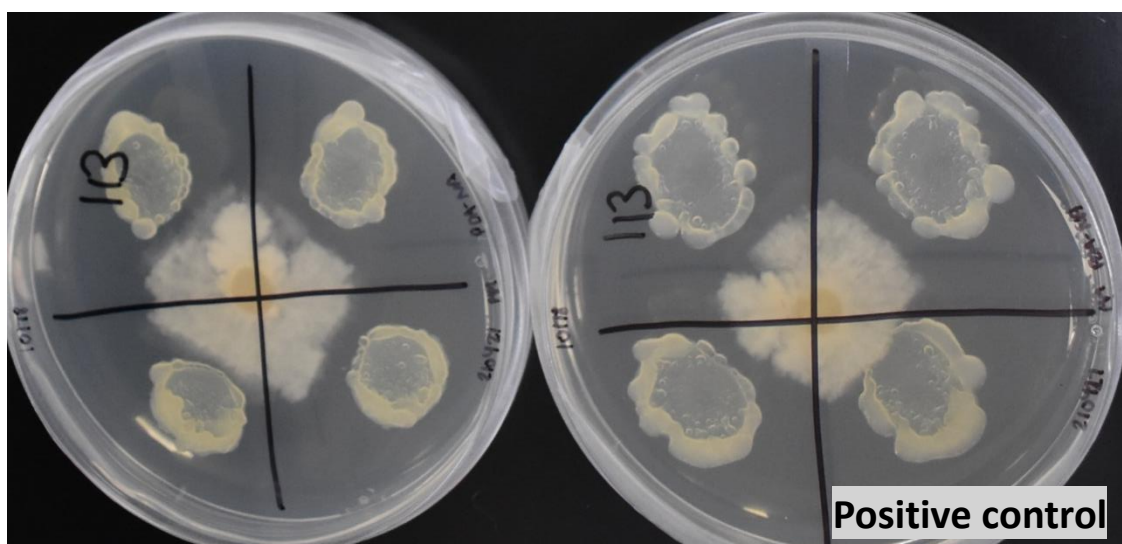
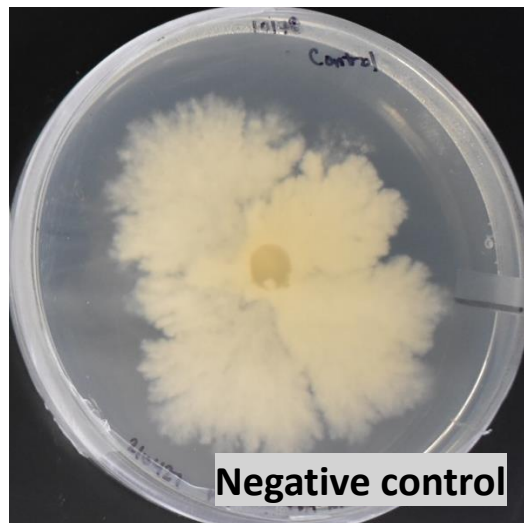
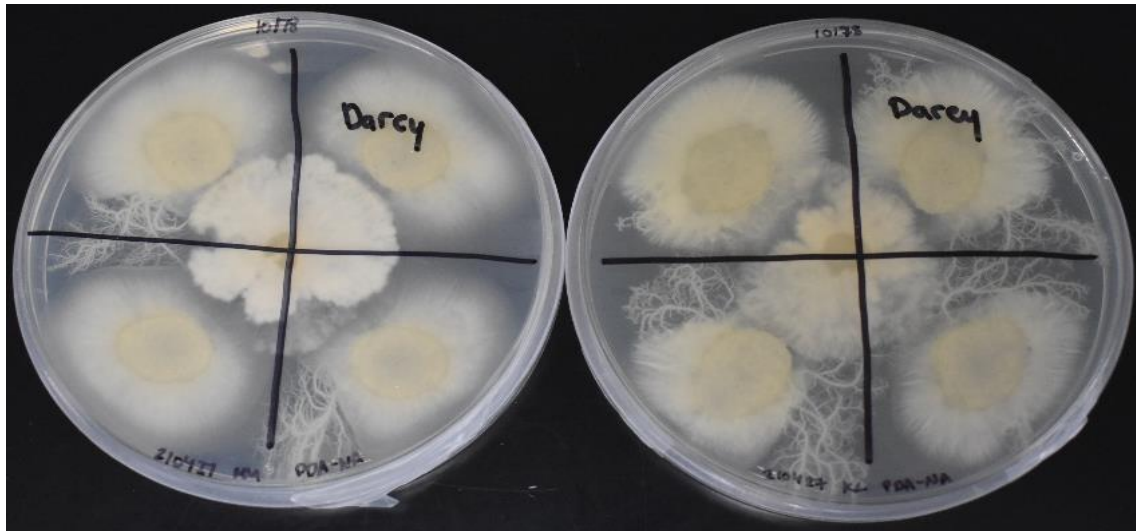




Figure 2. Antagonism against Dollar Spot - *Clariireedia jacksonii* (SH84)

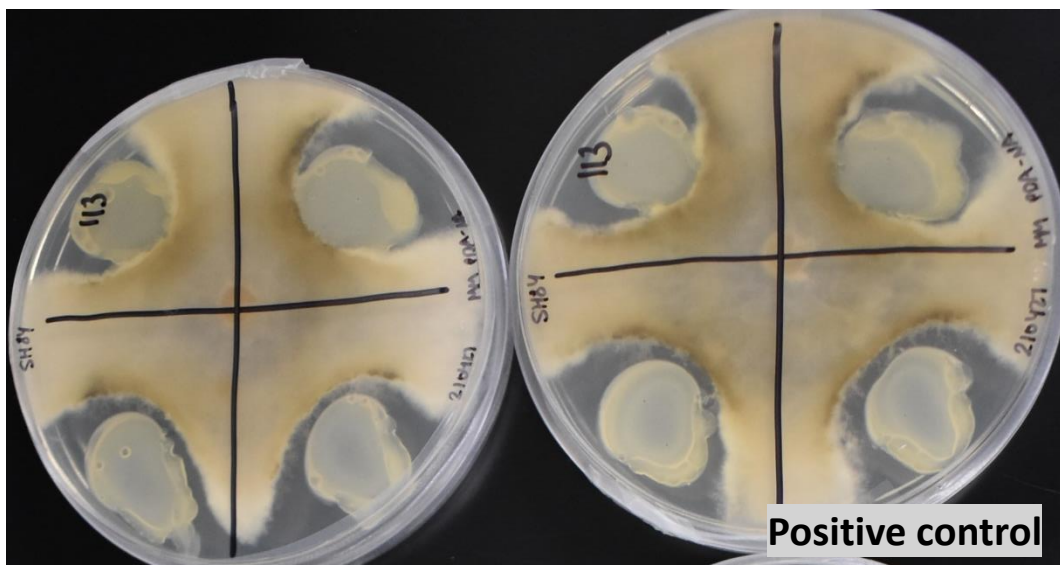
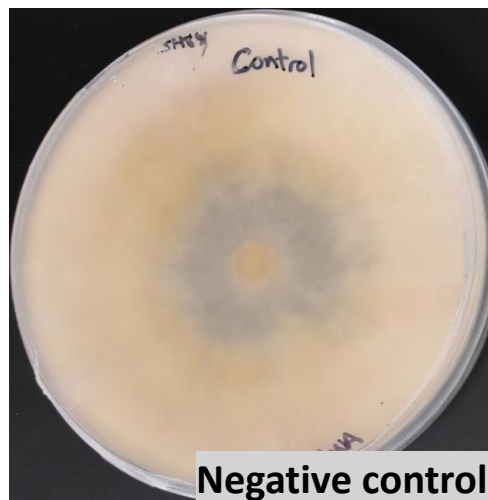
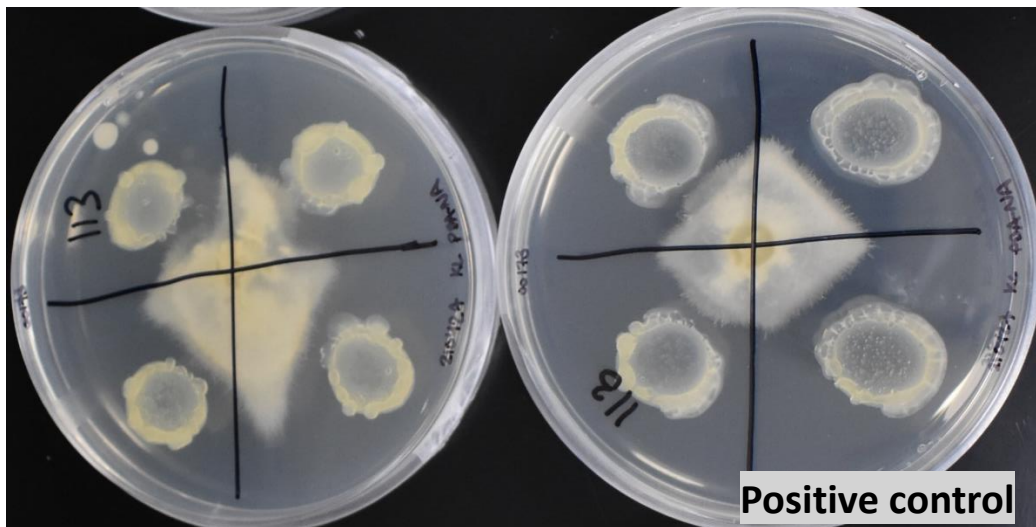
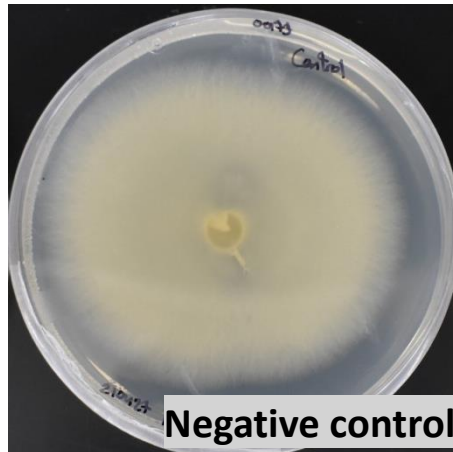
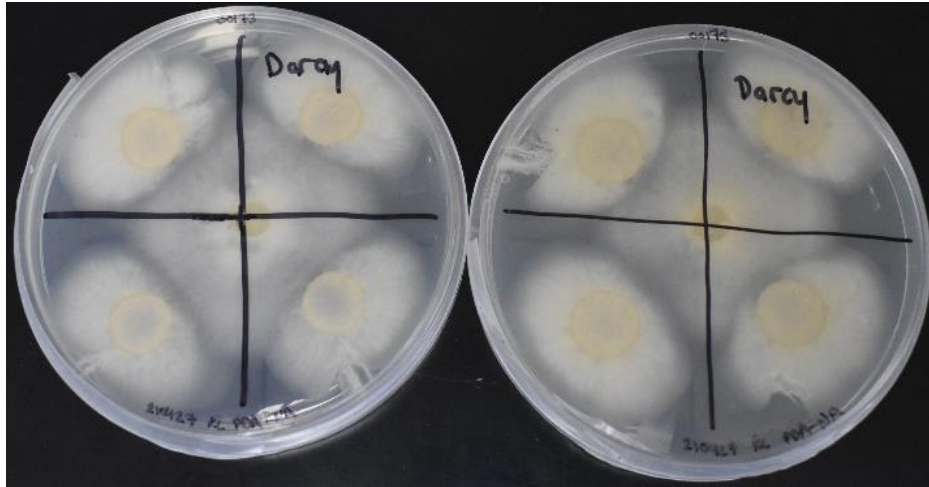




Figure 3. Antagonism against Anthracnose- *Colletotrichum graminicola* (00173)



A&L Biologicals

2136 Jetstream Road · London, Ontario · N5V 3P5 · (519) 457-2575



Conclusion:

Liquid concentrate amended with activator demonstrated strong inhibitory action against two of the turf grass pathogens such as *Microdochium nivale* (10178), *Colletotrichum graminicola* (00173) and moderate activity against the third one viz., *Clariireedia jacksonii* (SH84)/(formerly /*Sclerotinia homoeocarpa*/) among the three potential turf grass fungal pathogens tested.