**Gaps in Literature: Questions to ask**

**Fruiting body yield as a function of substrate(s):**

While it is known what mushroom species prefer which substrates, there does not seem to be research directly linking this knowledge to fruiting body yields. We could provide this knowledge, which is essential when deciding whether to cultivate mushrooms.

**Different Species:**

Our focus on the *Coprinus, Ganoderma,* and *Hericium* families addresses a relative lack of research. Most research on mushroom cultivation has a strong preference for *Agaricus* and *Pleurotus*, which are both species that lend themselves to large cultivation operations.

**Availability of usable substrates:**

Large-scale mushroom cultivation relies on bulk substrates such as sawdust or straw due to economies of scale and the difficulty in transporting multiple substrates. Additives such as gypsum, lime, ammonia, and sugar are often used to provide key nutrients. It may be that smaller scale production is better suited to take advantage of more varied sources of mushroom substrate that can provide a fuller nutrient profile. We aim to combine multiple types of substrate in part to address this question.

**Economics:**

A general aim of this research is to provide information for people interested in cultivating mushrooms in the Palouse region. Given the costs of substrate and labor and the prices mushrooms would fetch, we aim to determine whether the selected agricultural wastes can be used to produce mushrooms profitably.

**Market:**

Prices for mushrooms vary greatly depending on the local demand. As a final component of this project, we aim to survey the local interest in mushroom cultivation as well as interest in food suppliers in selling mushrooms.