

STANDARD OPERATING PROCEDURE

Fungus

SOP No: FUN00003

SOP Title: Grain Preparation

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	NAME	TITLE	SIGNATURE	DATE
Author	TBD	Grain Preparation		
Reviewer				
Authoriser				

Effective Date:	
Review Date:	

READ BY			
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1. PURPOSE

Processing grain for bulk cultivation of various fungi species. A soak period is required to activate dormant endospores and bacteria, followed by cooking to achieve the correct moisture content, then the sterilization process.

2. INTRODUCTION

Grain is used in the cultivation at small to large scale, proper preparation is essential to success.

3. SCOPE

The process from obtaining and cleaning dry bulk grains all the way to sterile jars

4. DEFINITIONS

Trivet – a piece of metal placed in the bottom of a pressure cooker/canner to elevate objects off of the bottom, typically a perforated sheet of metal

5. RESPONSIBILITIES

Obtaining grains, cleaning grain, cooking grain to proper moisture levels, drying grain, canning/sterilizing grains

6. SPECIFIC PROCEDURE

1. Buy grain, for this SOP we will focus on popcorn
2. Soak grain in a large pot of room temperature water for 24 hours. This allows endospores to germinate, so that we may kill them off.
3. Pour off water, rinse grains and allow to drain. Add back to pot with fresh water and bring to boil, then reduce to simmer
4. Cook until grain pinches cleanly with fingernails only, before the outer membranes begin to split. It should be moderately firm still, any mushiness is a sign of it being overcooked. It shouldn't take more than 45 minutes to get corn completely done
5. Drain the grains, rinse thoroughly to remove excess starches
6. Pour grain onto a towel or screen and allow to dry, a fan helps the process
7. Add grain to clean jars, fill ~2/3 full. Optional: add a tablespoon of vermiculite to each to prevent excess moisture issues
8. Add tyvek, lid, and foil to jar(as described in FUN00002), place in pressure cooker with trivet or jar lid rings on the bottom to keep glass off the base itself. Turn burner on high, bring pressure cooker up to 15 psi, reduce heat and maintain pressure for 90 minutes.
9. After 90 minutes, turn off heat and allow to return to room temperature
10. Remove jars when cool, use as needed within a couple weeks. Sooner is better.

7. FORMS/TEMPLATES TO BE USED

N/A

8. INTERNAL AND EXTERNAL REFERENCES

FUN00002 – Jar Lid Preparation

8.1 Internal References

FUN00002 – Jar Lid Preparation

8.2 External References

<https://www.theprairiehomestead.com/2012/08/how-to-use-a-pressure-canner-part-1.html>

9. CHANGE HISTORY

SOP no.	Effective Date	Significant Changes	Previous SOP no.