Instructions for Using the Mushroom Substrate and Spawn Formulation Sheets

Instructions:

1. This spreadsheet and its tabs are to be used to provide details about mushroom substrate and spawn/spawn media produced by your operation. If you purchase complete spawn and/or substrat you do not need to enter those on this spreadsheet. You can enter the finished products you purchase directly on theSupplier List.

2. If you make your own mushroom substrate(s) or spawn(s), you will need to fill out all applicable tabs on this spreadsheet.Be sure to list all ingredients on the Supplier List (agricultural ingredien Materials List (non-agricultural ingredients), as applicable. There are a few tabs on this form:

- Substrate and Spawn Names Tab - list each mushroom substrate or spawn media product you produce. Use a unique identifier/name for each complete substrate or spawn product (e.g.: Mix 1, Agaricus Spawn A, etc.).
- Formulation Sheet Tab(s) - list specific formulations for each substrate or spawn you produce. *Create a new tab for each formulation by copying the existing tab.* The details about all of t ingredients in each formulation should be in the Supplier List and Materials List, depending on ingredient.

3. Review the specific instructions on each tab.

4. Inputs applied separately which are not part of the mushroom substrate or spawn formulation (e.g. casing layer, additionalfertilizers, pesticides, irrigation line cleaners, etc.) should not be inclu form. List those on the Materials List or Supplier List, as applicable.

5. Only inputs approved by PCO may be used. All restrictions must be met. Verify with PCO that inputs have been approved before use on your operation.

6. When you make revisions and updates to the formulations of the mushroom substrate or spawn, or as you add and remove suppliers, update the applicable parts of this spreadsheet and submit changes to PCO.

Mushroom Substrate and Spawn Names

Instructions:

1. Use the table below to list ALL mushroom substrates and spawn products made by your operation. This also includes mushroom ready-to use products (e.g. grow kits/grow logs, bags, etc.)
2. Use a unique identifier/name for each complete substrate or spawn product (e.g.: Agaricus Mix 1, Agaricus Spawn A, Oyster Grow Log, etc.).
3. Inputs applied separately which are not part of the substrate (e.g. casing layer, additional fertilizers, pesticides, irrigation line cleaners, etc.) should not be included on this form. List those on th List or Supplier List, as applicable.
4. Only inputs approved by PCO may be used. All restrictions must be met. Verify with PCO that inputs have been approved before use on your operation.
5. For revisions and updates to this list as you add and remove mushroom substrate and spawn products, highlight new products in yellow and highlight removed products in blue.

Susbtrate or Spawn Name	Mushroom Variety Used With	Seeking Certification?	PCO Use Only
Example: Jeff's Agaricus Substrate Mix	Agaricus	No	
Example: Shiitake Spawn Mix	Shiitake	No- in house use	

Example Formulation Sheet

Important:

- A separate Formulation Sheet tab must be submitted for EACH complete substrate, spawn or RTU product (grow log/bag) that is made by your operation.
  - *Ready-to-use (RTU) product*. Growing media (mushroom substrate) used in the production of organic mushrooms that has been inoculated with spawn (as defined in §205.2) and is readily able to produce harvestable mushrooms in situ with proper humidity and temperature control.
- "Complete Substrate" is the finished substrate that will be used as the mushroom growing media, minus the spawn/spawn media and casing layer. This includes all phases of mushroom compost, nutrients and disease control products included within the substrate, etc. It also includes RTU product (grow log/bag mixes). Hardwood logs should be listed on your Supplier List.
- "Spawn" is the full spawn product used to grow the mushrooms. This includes all spawn media and the mycelium.
  Note that mushroom spawn must be certified organic unless commercially unavailable. When organic spawn is not commercially available, producers may use non-organic spawn but must document the lack of commercial availability in recordkeeping that will be audited by PCO. A commercial availability form is available if you would like to use it. Do not include mushroom mycelium culture media, as that is considered outside of the scope of review.
- Ensure that the manufacturing process for this product has been submitted to PCO as part of the Organic System Plan (OSP) or as an addendum or flow chart
- This list must be updated and submitted to PCO as changes occur.

Instructions:

1. This mushroom substrate or spawn product must be listed on the Substrate and Spawn Names tab. If you have multiple formulations, add additional tabs to this spreadsheet as needed.
2. Ensure that all ingredients (or possible ingredients) are listed. Highlight new ingredients in yellow and highlight removed ingredients in blue.
3. List the mushroom varieties this substrate or spawn media is to be used with.
4. Confirm in the box indicated that you have provided a description or flow chart to PCO for this product.
5. List each ingredient type and form (e.g. soybean meal, soy hulls, wheat middlings, alfalfa pellets, oats, hay, manure, etc.) or an exact product name if one is used (supplements) exactly as it appears on the label or invoice.
   - Each ingredient must be listed on the Supplier List or Materials List, as applicable.
6. List the purpose/use of each ingredient in the final product (e.g. nutrient, pest or disease control, structure, pH control, water retention, etc.)
7. If raw manure is used, indicate if the manure is sourced from your operation (On -Farm, column D) or from an outside source (Off-Farm, column E). If Off-Farm, an Off Farm Manure Supplier Affidavit must be on submitted. Manure must be composted per §205.210(c)(1).

Substrate or Spawn Name:	Shiitake (Lentinula edodes) Spawn Mix
Mushroom Variety This is Used With:	Shiitake
Description/Flow Chart for this product has been submitted to PCO:	Yes
Is this product composted to the requirements of §205.210(c)(1)? (Y/N	No

Ingredient/Product Name	Purpose in Product (e.g. nutrient, pest control, structure, etc.)	PCO Use Only (MRT #)	For Manure: Indicate On-Farm or Off-Farm	For Off-Farm Manure: Is supplier affidavit on file? (Y/N)
Wheat Bran	Fungal Growth			
Vegetable Oil	Media Cohesion			
Fine Vermiculite	Media Structure			
Lentinula edodes mycelium	Mycelium			

PCO

Formulation Sheet

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Substrate or Spawn Name:	
Mushroom Variety This is Used With:	
Description/Flow Chart for this product has been submitted to PCO (Y/N	
Is this product composted to the requirements of §205.210(c)(1)? (Y/N):	

Ingredient/Product Name	**Purpose in Product (e.g. nutrient, pest control, structure, etc.)**	**PCO Use Only (MRT #)**	**For Manure: Indicate On-Farm or Off-Farm**	**For Off-Farm Manure: Is supplier affidavit on file?** (Y/N)