



# Nutri-Fly®

## Molasses Formulation

Powdered Drosophila Media by Genesee Scientific

**Description:** Nutri-Fly Molasses Formulation is made to accommodate the requirements of large, communal Drosophila media preparation facilities as well as small, individual laboratories. Recipe can be doubled, tripled, etc. in the same batches to meet any media quantity requirements. Sealed in single-use foil pouches, Nutri-Fly MF is not only convenient but also robust, and guaranteed to make fresh and substantive food throughout its shelf-life of two years from delivery. Strict lot traceability procedures are employed to each ingredient, in every batch.

**Directions:** Empty entire contents of packet into a cooking vessel. Add ¼ - ½ specified RT H<sub>2</sub>O and stir out any clumps. Add remaining RT H<sub>2</sub>O and stir. Bring to a boil, then immediately reduce heat and cover. Simmer for 10 minutes, stirring often. Allow to cool to ~70°C then stir in specified (**Table 1.**) propionic acid<sup>††</sup> quantity (not supplied). Pour food immediately after adding propionic acid.

**Ingredients:** yellow corn meal, dry molasses, yeast, agar.

Table 1. Propionic Acid Quantity and Approximate Yield/Container

Cat#	H <sub>2</sub> O	Propionic Acid <sup>††</sup>	Narrow Yield	Wide Yield	Bottle Yield
66-116	1L	4.8mL	~110 Vials	~88 Vials	~22
66-114	10L	48mL	~1110 Vials	~880 Vials	~220

<sup>††</sup> Use suggested amount of propionic acid in Table 1 if using ≥99% (13.4M) propionic acid solution

Table 2. Superbulk Conversions

Liters	Propionic Acid <sup>††</sup>	H <sub>2</sub> O	Amount of Nutri-Fly
1	4.8mL	1L	178g
5	24mL	5L	890g
10	48mL	10L	1.78kg
15	72mL	15L	2.67kg
20	96mL	20L	3.56kg
50	240mL	50L	8.9kg

### Helpful equations when using SuperBulk:

**L = Amount of food you want to make (Liters)**

- 178g x L = Amount of Nutri-Fly powder
- L = Liters of H<sub>2</sub>O
- L x 4.8mL = mL of Propionic Acid

**Example:** To make 12L of food, you need: 2.13kg of Nutri-Fly Powder (177.67 x 12) + 12L of H<sub>2</sub>O, and 57.6 mL of propionic acid (12 x 4.8mL)

Table 3. Suggested Volume/Drosophila Container

Volume	Container Type	Genesee Scientific Standard Vessel Catalog Numbers
~10ml	Narrow Vial	Polystyrene: #32-116 (bulk); 32-109 (tray pack)
~12ml	Wide Vial	Polystyrene: #32-117 (bulk); 32-110 (tray pack)
~50ml	Standard Bottle	Polypropylene: #32-130 / Glass: #50-102

### Helpful Hints

- To effectively remove clumps before and during cooking use a whisk or hand mixer to stir them out. You can also use a spoon, but a whisk is the most effective.
- Problematic food is often simply dry food. Seemingly small changes in the cooking process can make a significant difference in the quality of the food if those changes result in increased water loss. Take special care in this regard, especially in dry climates.
- If new to Nutri-Fly, start small on your first batches. Before combining multiple packets, start with one to gain experience and a comfort level and gradually move to larger batches.
- The food is very thick, even when hot. Be sure your pump can handle it before you make a large batch.
- For easy handling of tegosept, you can put into solution as follows:  
Nipagin solution (25 g Nipagin M [Tegosept M], *p*-hydroxybenzoic acid methyl ester] in 250 mL ethanol). 10mL per 1L of food.

<sup>††</sup> Tegosept (Genesee #: 20-258; 20-259; 20-266 / synonyms: methyl paraben; nipagin) may be used in addition to but not instead of propionic acid. Propionic acid is considered sufficient as a preservative and the use of tegosept is known to slow Drosophila growth rates in the larval and pupal stages and we therefore suggest it be used only when additional fungal protection is necessary, or to eliminate sporadic mold problems.