

# RYE MEDIA

## The Judelson Method

(adapted from Caten and Jinks, 1968, Can. J. Bot. 46:329)

1. Soak rye berries (preferably organic) in water 24 to 36 hr, room temperature. Use 60 g per 1 liter desired final volume, soak 60 g per 500 to 600 ml.
2. Blend at high speed for 20 seconds. Pour into flasks, distributing solids and liquids evenly. Put about 1 liter in a 2 liter flask. Rinse out the rye seeds left in the bottom of the blender cup out with more water. Now you will have the 60 g of rye seeds in about 800 mls water.
3. Autoclave 30 min.
4. While still hot (about 60-70C), filter out the large chunks by passing through a 1 mm steel mesh (a large kitchen strainer) into a beaker. Resuspend the retained rye seeds in about 200 mls of water and refilter (this helps improve the yield by releasing more nutrients). Note: a more transparent media can be obtained by filtering through cheesecloth; or miracloth; or by centrifugation for 5 min at 5000 x g.
5. Bring the volume to 1 liter for every 60 g of seeds. If you have ended up with the media distributed among several beakers, make sure all components are evenly mixed (I pour the beakers back and forth to equalize the contents).
6. Add 20 g sucrose per liter. Mix well. Freeze in aliquots or use immediately.

*I usually make up about 15 liters at once and freeze in 1 liter bottles. Bottles are thawed, and 1.5% agar added for plates, as needed.*

*To clarify the media, simply spin at 5k x g, 5-10 minutes.*

Common additions (not all at once!)

50 µg/ml ampicillin (anti gram-pos. and neg. bacteria ex. Pseudomonas et al.)

50 µg/ml vancomycin (anti-gram-positive)

10 µg/ml rifampicin (anti-gram-positive; very effective but a carcinogen)

67 µg/ml terrachlor (75% PCNB)(anti fungi)

100 µg/ml benomyl (50% active)(anti fungi)

4 ml/liter of 2.5% Pimaricin (anti fungi)

4 ml/liter of 10,000 units/ml Nystatin (anti fungi)

# Green pea medium

*from Tooley, Appl. Environ. Micro. 63(4).1467-1475, 1997*

1. Autoclave frozen peas (preferably unsalted) in water for 30 min.

<u>peas</u>	<u>cooking water</u>	<u>final volume</u>
283 g	700 ml	1000 ml
1 lb	1120 ml	1600 ml
142 g	350 ml	500 ml

2. Strain through 2 layers of cheesecloth.
3. Bring up to final volume with water.
4. Reautoclave before use ( $\pm 1.5\%$  agar)

*To clarify the media, simply spin at 5k x g, 5-10 minutes.*