Rice seed germination

> All ddH_2O used for this process should be sterilized.

Step 1: Homogenization

1. Dehusked the seeds. Select only seeds that are well-developed, fully-filled, clean, and transparent.
2. Dry-incubate the seeds in dark under 45°C for 24 hours.

Step 2: Sterilization

1. Soak the seeds in 3% bleach solution (add one drop of detergent) and gently inverting / shaking for 20 mins.
2. Wash at least 6 times with ddH_2O, until the bubble has gone and water is clear.

Step 3: Priming and imbibition

1. Remove the water thoroughly with pipette.
2. (optional) Seed priming. Soak the seeds in 3% KNO_3 solution under room temperature for 24 hours;

> - The KNO_3 priming method is not effective in our case

3. Soak the seeds in 1 ~ 2% Plant Preservative Mixture™ (PPM™) solution and incubate at 30°C in dark for 16 ~ 24 hours.

> - For example, add 300 μL PPM into 30 mL sterilized ddH_2O.

Step 4: Sowing

1. Remove the PPM solution.
2. Sow the seeds on suitable medium.

> - The seed must be fully embedded into the medium, otherwise, the seedling will push itself up during root penetrating into the gel.
> - Optional: Add 0.05 ~ 0.2% (v / v) PPM™ to the medium, if it is difficult to control contamination. The PPM™ can be autoclaved together with the media.

Done !!!
