

Yeast Experiment Design 2:

Yeast in agar plates:

We will use one segmented plate to compare three different yeast strains. Each section of the plate will be marked with a grid (to determine growth). The plate will be stabilized on one wall of the ardulab. It will be covered with air exchange cover over the plate. The agar will be formulated to allow for slow growth aboard the ISS over the 30 day period.

Yeast strains to be determined after class initial testing in October/November. Will be strain of brewing and/or baking yeast.

Agar to be formulated by Dr. Brian Stephens if necessary.

Temperature/Humidity Sensor:

The temperature and humidity sensor will be placed across from the plate. Temperature and Humidity will be monitored and serve as comparative data for the experiment completed on Earth.

Co2 sensor:

Carbon dioxide sensor will be placed near the cover of the plate and affixed to the inside wall. This sensor will collect data on Carbon dioxide gas being released during the process of cellular respiration. This will be one piece of data to monitor which can help determine if yeast growth continues. Placing the monitor near the cover will help receive an accurate reading from the dish. Any decrease could be an indication that one or more of the yeast strains has died.

Light:

A light will be placed in the ardulab to insure there is enough light to get a quality image from the camera for data collection.

Camera:

The high definition camera will be installed on the inside face of the ardulab that is opposite the agar plate. The high def camera will be used to insure quality of the image.