

Penn State Food Safety Short Course

National University of Life and Environmental Sciences of Ukraine

Food Mycology and Mycotoxins-Case Study

For this activity the class will be divided into five groups.

Below are five food products with different pHs and Water Activities (A_w). Determine what food products fall in these categories. Based on these two intrinsic factors (pH and A_w) try to predict the potential and dominant spoilage microbial flora (molds, yeasts and bacteria) of the food product that is assigned to your group. As the food microbiologist in this company determine the testing protocol (sampling, dilutions, media, technique, and incubation temperature...) needed to enumerate, isolate and identify the dominant flora. Also select process (es) that can be used to keep these products safe and of good quality.

Food product	pH	A_w
A	4.0	0.96
B	5.5	0.85
C	7.0	0.80
D	3.5	0.98
E	5.5	0.70

At the end of this task, select a representative from your group, who will present your findings to the class.