5sec rule exp report

Science, Biology

Section: Bio 100 5 Second Rule Experiment Second Week Introduction 5 second rule experiment second week is an experiment carried out to determine the extent of reproduction and consequent level of threat bacteria cause on nutrients agar and blood agar. This experiment aims at testing the hypothesis

Materials and methods

Nutrient agar right half, nutrient agar left half, blood agar right half, bologna, gummy bear, blood agar left half, nutrients agar control and blood agar control were used in this experiment. The experiment was done in five seconds intervals and them measurements were done on the samples to ascertain the level of bacteria in them, type of colony formed and how fatal are the threats they pose.

Results

PLATE

TOTAL COLONIES

OF DIFFERENT COLONY TYPES BASED ON MORPHOLOGY

ADDITIONAL RESULTS MORPHOLOGICAL TYPES AND GROWTH PATTERNS (I. E HEMOLYSIS)

Nutrients agar right half

Bear gummy

70% of slide is covered

Lobate circular punctiform

Raised and rough

Nutrients agar left half

Bologna

70% of slide is covered

Irregular lobate punctiform

Raised and rough

Blood agar right half

Gummy bear

90% of slide is covered

raised circular irregular

Beta hemolytic 60% see through

Blood agar left half

Bologna

95% of slide is covered

Raised lobate circular

Beta hemolytic 45% see through

Nutrients agar control

Gummy bear 0

Bologna 2

Gummy bear N/A

Bologna circular

Raised

Smooth

Blood agar control

Gummy 0

Bologna 3

Gummy N/A

Bologna circular punctiform

Gamma hemolytic

Discussion

In nutrients agar bacteria multiply and cover 70% of the slide forming lobate circular punctiform with a raised and rough pattern. In blood agar along gummy bear they multiply and fill 90% of the slide forming a raised circular irregular colony with a complete hemolytic 60% see through unlike in blood agar along bologna where they fill 95% of the slide forming a raised lobate circular colony with a complete hemolytic 45% see . A control experiment is used for standardization . In conclusion bacteria reproduce well in blood agar and produce more toxic substances than in nutrients agar within a given time.

References

Zeller, Nancy. Great Experiments in Biology. 2012. University Readers, Inc.