

Exercise #19. Starch Hydrolysis Procedure p. 50

<b>Day 1</b> <b>Wed</b> <b>7/15/09</b>	<b>Procedure:</b> <ul style="list-style-type: none"><li>• work in groups of 3 or 4</li><li>• using a black marking pen, draw a line to divide starch agar plates in half</li><li>• LABEL each half with name of bacterium, unknown, name of group, date</li><li>• Inoculate using loop<ul style="list-style-type: none"><li>○ streak a loop of each bacteria in one straight line in each ½ section (see photo below)</li></ul></li><li>• INCUBATE: 37°C, 48 hours</li></ul>	<b>Organisms:</b> <b>Controls:</b> <ol style="list-style-type: none"><li>1. <i>E. coli</i></li><li>2. <i>B. subtilis</i></li></ol> <b>Your Unknowns:</b> <ol style="list-style-type: none"><li>3. unknowns</li></ol>
<b>Day 2</b> <b>Mon</b> <b>7/20/09</b>	<b>Results:</b> <ul style="list-style-type: none"><li>• observe plates</li><li>• flood surface of starch agar with a THIN layer of diluted Gram's Iodine</li><li>• observe plates for presence (+) / absence (-) of blue/brown color<ul style="list-style-type: none"><li>○ place agar plate on WHITE paper</li></ul></li><li>• record results on pp. 31-2 and 51<ul style="list-style-type: none"><li>○ for unknowns and known's</li></ul></li><li>• answer questions</li><li>• refer to dichotomous key</li></ul>	Iodine reacts with starch and produces a blue/brown color  Starch hydrolysis will be observed as a 'clear' zone around the bacterial growth

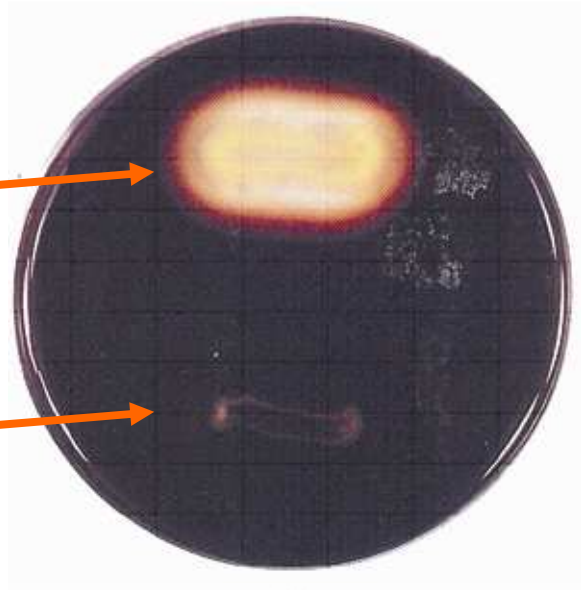


**Biology 26 Microbiology Laboratory**

*Bacillus cereus* (positive,  
starch hydrolyzed)



*Escherichia coli* (negative)



A starch agar plate with iodine  
added to detect amylase activity