## **SOLE CARBON & ENERGY SOURCE TESTING**

## **MEDIA-BASED ENZYME & GROWTH FACTOR TESTING**

R DV DIVI D

**TESTING ARRAY** 

Produce proteinase enzymes that can reduce proteins to their amino acid components.

strains=13 Star

Able to produce the enzyme **amylase** to reduce starch to its monosaccharide subunits.

Sier

Produce lipase and esterase enzymes to dissassemble and degrade lipids.

Produce lipase enzymes that can seperate lipids into their fatty acid subunits.

Phos

Demonstrates the ability to solubilize insoluble forms of phosphate.

strains=1

Produces the hormone indole acetic acid.

Able to produce **ligin modifying enzymes** to break down ligin into smaller subunits.

Produce cellulase enzyme that can break down cellulose into its monosaccharide units.

strains=10

Produce chitinase enzyme that breaks down chitin into its n-acetyl glucosamine subunits.

strains=2

Identifies diazotrophs with the ability to fix atmospheric nitrogen into ammonia.

strains=15 Ammon

Identifies ammonifying organisms that can release ammonia from organic molecules.

rease

Produce the **urease** enzyme that breaks down urea into ammonia and CO<sub>2</sub>.

Able to degrade **1-aminocyclopropane-1-carboxylic acid**, a precursor to ethylene formation which may have an impact on stress in plants.

strains=10 | Produces the volatile compound acetoin which has been implicated in enhanced plant growth and inducing systemic resistance in plants against pathogens.

strains=2

Demonstrates the ability to solubilize insoluble forms of potassium.

strains=2

Demonstrates the ability to solubilize insoluble forms of zinc.

strains=1 Ben

Able to grow on **benzene** as a sole carbon and energy source.

strains=1 Tol

Able to grow on toluene as a sole carbon and energy source.

strains=1

Able to grow on ethylbenzene as a sole carbon and energy source.

Able to grow on xvlene as a sole carbon and energy source.

strains=4 Nap

Able to grow on naphthalene as a sole carbon and energy source.

strains=3 Dies

Able to grow on diesel fuel.

**Paraff** 

Able to grow on paraffin.

strains=5

Able to grow on limonene as a sole carbon and energy source.

strains=8

Able to grow on citronellol as a sole carbon and energy source.



Able to grow on geraniol as a sole carbon and energy source.



Able to grow on phenol as a sole carbon and energy source.

