SOLE CARBON & ENERGY SOURCE TESTING

MEDIA-BASED ENZYME & GROWTH FACTOR TESTING

401 BIOCHEMICAL TESTING ARRAY

Pro

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

Star Star

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

strains=4
Sier

Produce **lipase and esterase** enzymes to dissassemble and degrade lipids.

Lip

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

Phos

Demonstrates the ability to solubilize insoluble forms of **phosphate**.

AA

Produces the hormone indole acetic acid.

Cellu Strains=11

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

Chitin

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

strains=7

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

strains=3
Sider

Produce iron-chelating **siderophore** compounds.

Ammon

Identifies ammonifying organisms that can release **ammonia** from organic molecules .

Urease

Produce the **urease** enzyme that breaks down urea into ammonia and CO₂.

Sox

Can convert (oxidize) insoluble, unavailable **Sulfur** into more available forms.

ACC

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

ACE

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

strains=5

Demonstrates the ability to solubilize insoluble forms of **potassium**.

strains=2 **Zn** Demonstrates the ability to solubilize insoluble forms of **zinc**.



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.

strains=4
Nap

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

strains=2
Dies

Able to grow on diesel fuel.



Able to grow on paraffin.



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



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



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.

