PTH – AGRICULTURAL USES

WATER QUALITY IS THE MAIN CONDITION FOR SUCCESSFUL GROWTHS IN AGRICULTURE.

THE COMPOSITION AND THE CONCENTRATION OF SOLUBLE SALTS ARE AFFECTING THE QUALITY AND THE USE IN THAT WATER. THE SOLUBLE SALTS ARE MAINLY: Na, Ca, Mg, chloride, sulfate, and HCO3. THE NEGATIVE INFLUENCE OF SALTS IN THE SOIL SOLUTION ON THE PLANTS GROWING IS EXPRESSED IN 3 WAYS:

1) OSMOTIC INFLUENCE THAT IS LIMITING THE PLANT'S ABILITY
   ABSORB WATER, AND NUTRIENTS
2) EFFECT OF A SPECIFIC ION ON PHYSIOLOGIC PROCESS IN THE PLANT.
3) CHANGES IN THE PHYSICAL QUALITIES OF THE SOIL THAT AFFECTS
   THE PLANT'S GROWTH.

USING IRRIGATION WATER TREATED BY **PTH** WILL PERMIT BEST CONDITIONS IN THE SOIL SOLUTION, FOR BETTER GROWING, AND HIGER YIELDS.

THE FOLLOWING INFORMATION WILL DESCRIBE THE POSITIVE INFLUENCE OF USING **PTH** IN IRRIGATION WATER.

THERE IS AN INTERACTION BETWEEN THE ELECTRO-STATIC FIELDS (CAUSED BY **PTH** ACTIVITY), TO THE ELECTRIC CHARGED PARTICLES THAT EXIST IN THE WATER.

THE TREATED WATER ARE REACTING WITH A LARGE VARIOUS OF PARTICLES, IONS, MOLECULES, FREE RADICALS, CHARGED COLLOIDS, SUSPENSION FLUTES WITH ELECTRIC CHARGE.

THE REACTION IS IN 2 WAYS:

DIRECT REACTION ON THE CHARGED PARTICLE

KINETIC MODIFICATION (INFLUENCE OF THE ELECTRO-STATIC FORCES ON THE ENERGY LEVEL OF THE MOLECULE)

THE RESULT OF THE REACTIONS ABOVE IS SOME CHANGES IN THE BEHAVIOR OF THE PARTICLES, IN THE PROCESS OF PRECIPITATION OF MINERALS IN THE SOIL, IN SOME ASPECTS:

THE SIZE OF THE PRECIPITATED PARTICLE

THE SHAPE OF THE PARTICLE

THE RATIO BETWEEN THE SIZE AND SHAPE OF THE PARTICLES

THE PROCESS OF THE PARTICLES PRECIPITATION

THE SOLUBILITY OF THE MINERALS

THE PRECIPITATION RATE.

THE MECHANISM OF THESE REACTIONS IS EXPRESSED IN 2 EFFECTS:
THE MAIN PHYSICAL EFFECT: DIRECT INFLUENCE ON THE COMPOSITION AND THE SOIL TEXTURE
THE SECOND PHYSICAL EFFECT: CHANGES ON THE SOLUBILITY OF MINERALS IN THE SOIL SOLUTION.

THESE 2 PROCESSES ARE AFFECTING DIRECTLY ON THE ABILITY OF THE ROOTS SYSTEM TO ABSORBED NUTRIENTS MORE EFFICIENTLY, AND ALSO AN EXCELANTE EFFECT ON THE SALTS WASH AWAY OUT OF THE ACTIVE ROOTS SYSTEM.