

# WASTEWATER DECISION SUPPORT PROJECT

## Let's Join Hands to Learn Together



**DURATION** 03 YEARS  
**COLLABORATIVE INSTITUTES**

January 2021  
November 2023  
Diné College  
University of Arizona



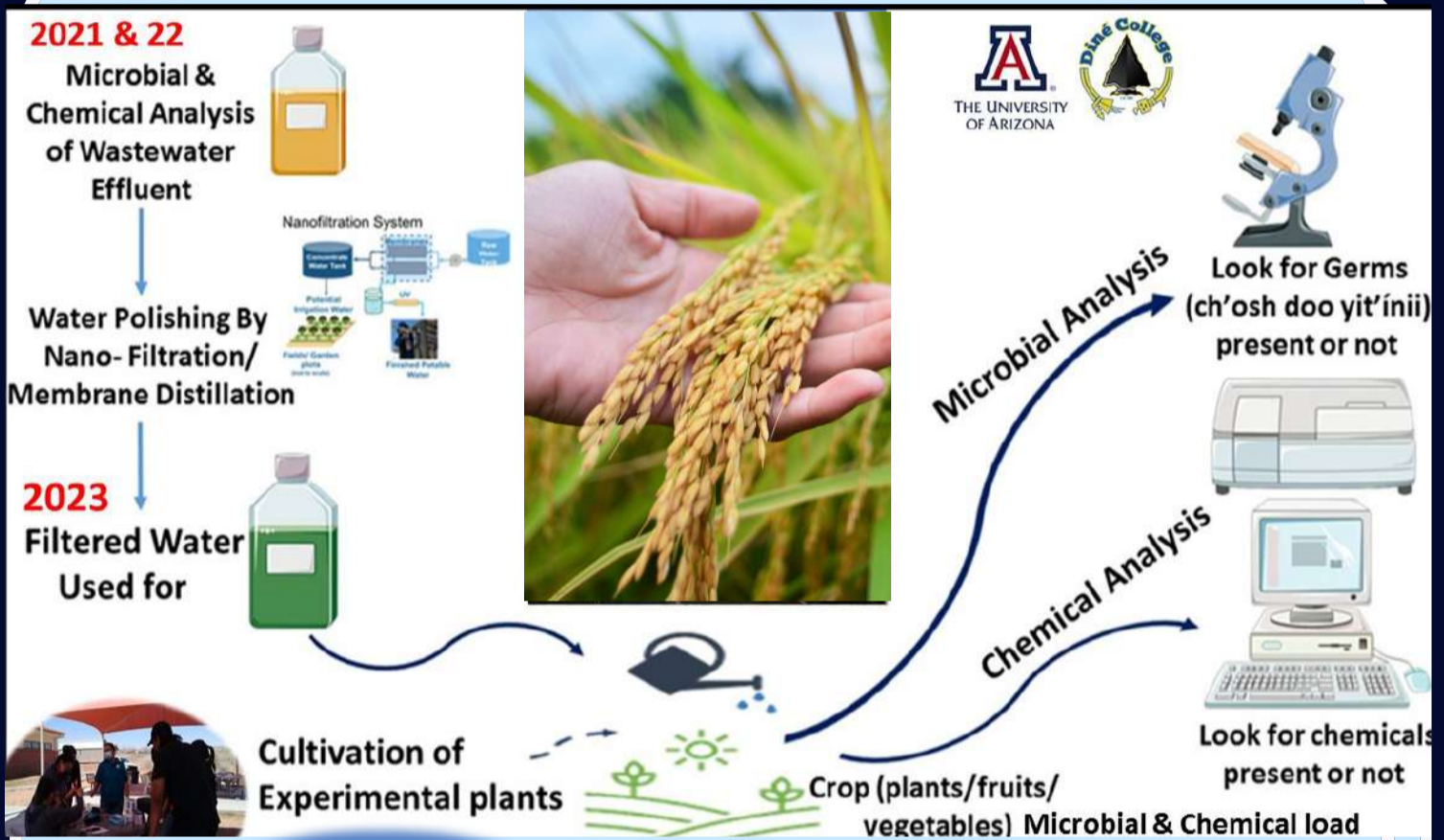
### Objectives

- Public awareness about water quality ; water contamination & purification
- Promote alternate sources of water
- Train Navajo water scientists, our youth to help solve water problems

### AIMS

- Feasibility analysis of reclaimed wastewater use for irrigation of edible crops--by correlating microbial and chemical screening pre and post Nano-filtration

## PROJECT PLAN



04 research poster presentations at ASM-Microbe; ABRCMS and Water Conferences in 2022

06 Chapter house presentations within Navajo Nation during 2021 & 2022

### STUDENTS TRAINED

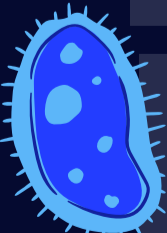
- 2021=06 Navajo Water Scientists
- 2022 - 08 Navajo water Scientists



## Why it is Important to know your water?



Many protozoa like *Giardia lamblia*, and *Negleria fowleri* can found in unregulated water resources and cause severe infections



Some contaminants, either chemical or microbial might cause mutations that results in different genetic disorders



Inorganic chemicals like Uranium, Arsenic, Lead, Iron, Chromium and Manganese can be carcinogenic



If organic chemicals like Dyes, humic substances, phenolic compounds, petroleum, surfactants, pesticides, and pharmaceuticals present in water can cause adverse health effects

ch'osh doo yit'inii (bacteria or germs) if present in water can cause infections like diarrhea, gastric ulcers, Legionellosis, or Giardiasis



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