

# STUDENT RESEARCH

&



Scientists



# Transforming GLOBE Students' Learning Experience

through the advancement of inquiry



**Investigation on Controlled and Uncontrolled Inflow of Saline Water in Tangerine Orchards**  
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**RESULTS**

**Table 1** Soil physical properties at different depths: D1 (Controlled inflow of saline water), Bangkok, Thailand

Soil depth (cm)	Soil Moisture Content (%)	Soil Bulk Density (g/cm <sup>3</sup> )	Soil porosity (%)	Soil Texture	Soil color	pH	N	P	K
10	31.89	1.25	52.83	Silty clay	2.8V-3C2	7.5	Low	Low	High
30	31.2	1.24	53.59	Silty clay	2.8V-4C2	7.5	Low	Low	High

**Table 2** Soil physical properties at different depths: D2 (Uncontrolled inflow of saline water), Bangkok, Thailand

Soil depth (cm)	Soil Moisture Content (%)	Soil Bulk Density (g/cm <sup>3</sup> )	Soil porosity (%)	Soil Texture	Soil color	pH	N	P	K
10	25.83	0.82	69.16	Silt loam	7.5V1	7.5	Low	Low	High
30	26.15	1.11	43.02	Silty clay	10YR-4/2	6.0	Low	Low	High
50	31.22	1.47	42.93	Silty clay	10YR-4/1	6.0	Low	Low	High

**Soil Bulk Density**

**Soil pH between both orchards**

**DISCUSSIONS**

We found that the saline water controlled orchards has constant soil pH for all depth, pH 7.5, and higher soil bulk density because the farm was compacted by tractor. There were high amount of potassium, but low nitrogen and phosphorous in both orchards. Our next study is to investigate water salinity in the farm.

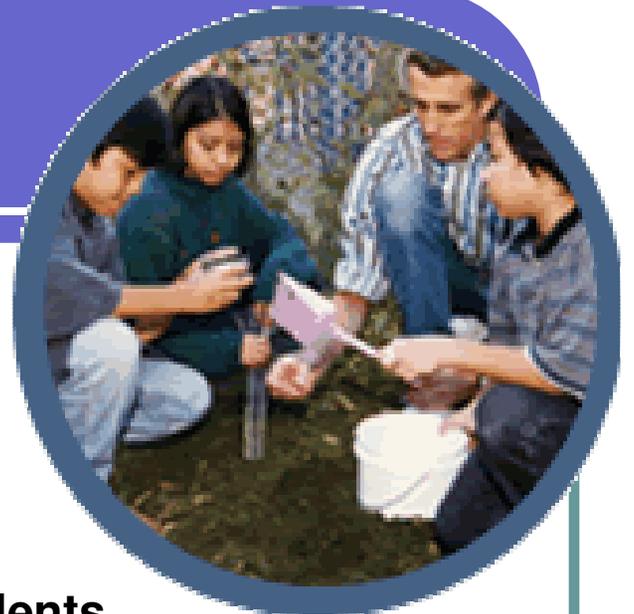
**REFERENCES**

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- A. Faradon, et al (1999), Narasara Som-Kheo-Wahni, Kasetsart University.

# Role of Scientists in the GSN



**Mentor**



**Engage with students**

**Advise**

**Teach,**



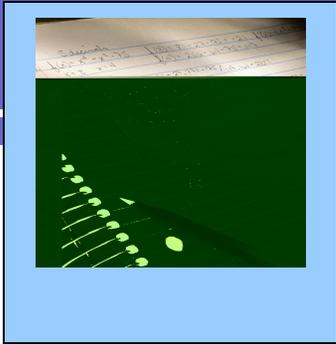
## Possible Interaction Patterns

### Roles

### Responsibilities

### Sample Tasks

Student Research Review Board	Review student research reports for competition events and for posting on the GLOBE Web site	GLOBE Learning Expedition U.S . Competition- choose 5 teams to present
Research Advisor	Advise classes, research teams, and individual students on how to develop research questions, working theories and methodology	Via: Email Wikis Scientists Forum Teleconferences
Teacher	Guide the advancement of student knowledge	Via: Blogs Web Chats Podcasts
Real-time Engagement	Meet with students Face to face to offer feedback and encouragement	Via: Science Fair Conference Presentations Field Trips School visits
Mentor	Sustained engagement with teams or individuals through the their research projects.	Via: All the above



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