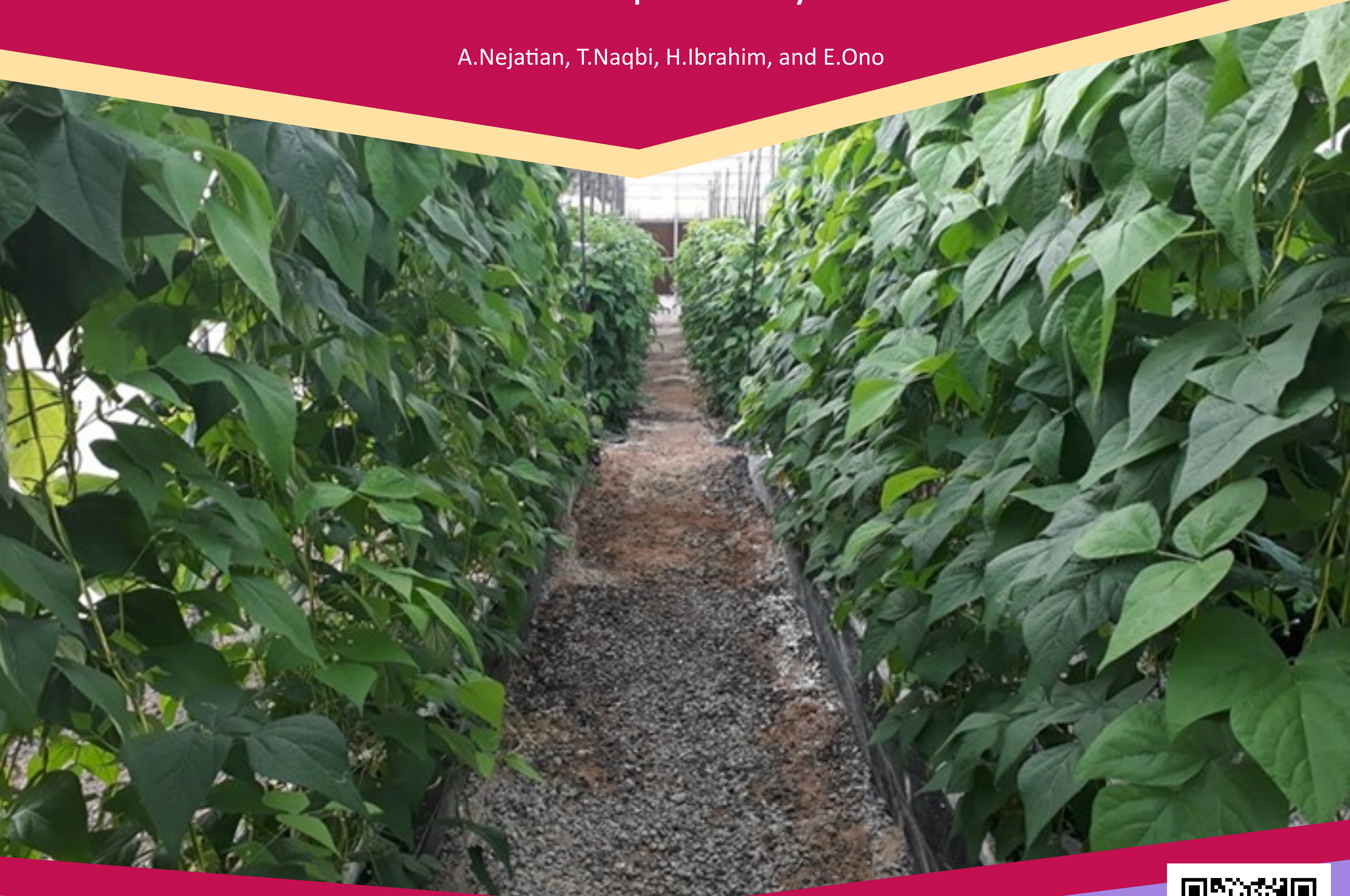


An Agro-economic comparison between Dwarf and Long green beans production in soilless production system

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Study Objective

Compare the yield and income of dwarf and long beans in a hydroponic system in the UAE.

Methodology

- Randomized Complete Block Design (RCBD)
- Dwarf beans (SHADE): Vertical system (60m²)
- Long beans (Saphiros): Flat system (120m²)
- Location: 8x30m greenhouse at Al Dhaid
- Irrigation: Closed Hydroponics System



Key Findings

Yield: Dwarf beans 1.98 kg/m²; Long beans 0.98 kg/m².

Timing: Dwarf beans start earlier, produce one week longer

Net profit/season/m² of greenhouse for production of the beans varieties

	Dwarf (Short) Beans	Long Beans	Differences
Total income (m ²)	8.91	5.92	2.98
Seed	1.71	2.90	-1.19
Fertilizer	3.27	1.54	1.74
Current cost (m ² /season)	4.98	4.43	0.55
Pots	0.88	0.28	0.60
Media	1.11	0.39	0.72
Irrigation system	0.66	0.50	0.16
Total investment cost (m ² /season)	2.64	1.17	1.48
Net Profit (m²/season)	1.29	0.32	0.96